

LinuxFoundation.CKAD.v2026-02-02.q103

□□□□:	CKAD
□□□□:	Linux Foundation Certified Kubernetes Application Developer Exam
□□□:	Linux Foundation
□□ □□ □□□:	103
□□:	v2026-02-02
# □□ □:	131
# □□ □□□:	1030
https://www.krdump.com/LinuxFoundation.CKAD.v2026-02-02.q103.html	

NEW QUESTION: 1

□□ □□□ 'version' □□□ □□□□ □□ □□□ □□□□ □□□□□ □□ □□□□
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□ □□□□□□ □□, □□□ 'v?'□ □□□ □□ □□□ 'v?' □□□□ □□□□□□ □□□. □□
□ □□ □□□□ □□□□ □□ Kubernetes□□ Ambassador □□□ □□□□ □□□□□.

Answer:

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□□□(□□□) :

1. □□□□ □□□ □ □□ □□:

- Ambassador □□□ □□□□ Ambassador □□□ □ □□□ □□□□□.

- □□□ <https://github.com/datawire/ambassador>□□ □□□ □ □□□□.

- '□□' □□□ □□□□ □□ □□ □□□□ □□ Ambassador □□□ □□□□□ □□□ □□□
□□□□.

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: ambassador
spec:
  replicas: 1
  selector:
    matchLabels:
      app: ambassador
  template:
    metadata:
      labels:
        app: ambassador
    spec:
      containers:
        - name: ambassador
          image: datawire/ambassador:latest
          ports:
            - containerPort: 8080
      resources:
        limits:
          cpu: 500m
          memory: 512Mi
        requests:
          cpu: 100m
          memory: 128Mi
      imagePullSecrets:
        - name: my-registry-secret
```

2. `[[{"name": "Ambassador", "type": "Ambassador", "x": 100, "y": 100, "w": 100, "h": 100}]]`
`Ambassador` YAML `[[{"name": "Ambassador", "type": "Ambassador", "x": 100, "y": 100, "w": 100, "h": 100}]]`
`[[{"name": "Ambassador", "type": "Ambassador", "x": 100, "y": 100, "w": 100, "h": 100}]]`.

```

---
apiVersion: getambassador.io/v2
kind: Mapping
metadata:
  name: version-mapping
spec:
  prefix: /
  host: ""
  service: service-name
  ambassador_id: default
  headers:
    - name: "Version"
      regex: "^v[1-9]+$"
      add_to_request: true
  labels:
    kubernetes.io/service-name: service-name

```

```

---
apiVersion: getambassador.io/v2
kind: Mapping
metadata:
  name: version-mapping-v1
spec:
  prefix: /v1
  host: ""
  service: service-name-v1
  ambassador_id: default
  headers:
    - name: "Version"
      regex: "^v1$"
      add_to_request: true
  labels:
    kubernetes.io/service-name: service-name-v1

```

```

---
apiVersion: getambassador.io/v2
kind: Mapping
metadata:
  name: version-mapping-v2
spec:
  prefix: /v2
  host: ""
  service: service-name-v2
  ambassador_id: default
  headers:
    - name: "Version"
      regex: "^v2$"
      add_to_request: true
  labels:
    kubernetes.io/service-name: service-name-v2

```



3. Ambassador ☐ ☐: - Kubernetes ☐ Ambassador ☐ ☐ ☐ ☐ ☐ ConfigMap ☐ ☐ Secret ☐ ☐ ☐ ☐ ☐. - ☐ ☐ ☐ ☐ ☐ Ambassador ☐ ☐ ☐ ☐ ☐. 4. ☐ ☐ ☐ ☐ ☐

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Ambassador □□□□ □□□ □□□ □□□ □□□ □□□□.

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: service-name-v1
spec:
  replicas: 1
  selector:
    matchLabels:
      app: service-name-v1
  template:
    metadata:
      labels:
        app: service-name-v1
    spec:
      containers:
        - name: service-name-v1
          image: your-image-v1:latest
          ports:
            - containerPort: 8080
```

5. □□□ □□□: - □□ 'Version' □□□ □□□□ Ambassador □□□□ □□□ □□□□. - □□
□□ □□ □□□ □□□□ □□□□ □□□□□□ □□□□□□. bash curl -H 'Version: V1'
http://ambassador-service-ip:8080/ curl -H 'Version: v2' http://ambassador-service-ip:8080/ □□
□ □□ 'Version' □□□ □□□□ □□□ □□□ □□□□ □□□ □□□□□□□.,

NEW QUESTION: 2



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* □/□ □(key1/value4)□ □□□□ another-secret□□□ □□□ □□□□□.

* □□□□ □□□ nginx□ □□□□ nginx-secret□□□ □□□ nginx pod□ □□□□, pod □□
□ □□ □□ □□□□ COOL_VARIABLE□ □□□□ □□ □ □ 1□ □□ □□□□ □□ □□□
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Answer:

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```
student@node-1:~$ kubectl create secret generic some-secret --from-literal=key1=value4
secret/some-secret created
student@node-1:~$ kubectl get secret
NAME                                TYPE                                DATA  AGE
default-token-4kvr5                 kubernetes.io/service-account-token 3      2d11h
some-secret                         Opaque                              1      5s
student@node-1:~$ kubectl run nginx-secret --image=nginx --dry-run=client -o yaml > nginx_secret.yaml
student@node-1:~$ vim nginx_secret.yaml
```

Readme

Web Terminal

THE LINUX FOUNDATION

```
apiVersion: v1
kind: Pod
metadata:
  creationTimestamp: null
  labels:
    run: nginx-secret
    name: nginx-secret
spec:
  containers:
  - image: nginx
    name: nginx-secret
    resources: {}
  dnsPolicy: ClusterFirst
  restartPolicy: Always
status: {}
```

"nginx_secret.yaml" 15L, 253C

1,1

All

Readme

Web Terminal

THE LINUX FOUNDATION

```
apiVersion: v1
kind: Pod
metadata:
  labels:
    run: nginx-secret
    name: nginx-secret
spec:
  containers:
  - image: nginx
    name: nginx-secret
    env:
    - name: COOL_VARIABLE
      valueFrom:
        secretKeyRef:
          name: some-secret
          key: key1
```

-- INSERT --

16,20

All

ReadmeWeb Terminal

THE LINUX FOUNDATION

```
student@node-1:~$ kubectl get pods -n web
NAME      READY   STATUS    RESTARTS   AGE
cache     1/1     Running   0           9s
student@node-1:~$ kubectl create secret generic some-secret --from-literal=key1=value4
secret/some-secret created
student@node-1:~$ kubectl get secret
NAME                  TYPE              DATA   AGE
default-token-4kvr5   kubernetes.io/service-account-token 3       2d11h
some-secret           Opaque            1       5s
student@node-1:~$ kubectl run nginx-secret --image=nginx --dry-run=client -o yaml > nginx_secret.yaml
student@node-1:~$ vim nginx_secret.yaml
student@node-1:~$ kubectl create -f nginx_secret.yaml
pod/nginx-secret created
student@node-1:~$ kubectl get pods
NAME      READY   STATUS    RESTARTS   AGE
liveness-http  1/1     Running   0           6h38m
nginx-101     1/1     Running   0           6h39m
nginx-secret  0/1     ContainerCreating 0           4s
poller       1/1     Running   0           6h39m
student@node-1:~$ kubectl get pods
NAME      READY   STATUS    RESTARTS   AGE
liveness-http  1/1     Running   0           6h38m
nginx-101     1/1     Running   0           6h39m
nginx-secret  1/1     Running   0           8s
poller       1/1     Running   0           6h39m
student@node-1:~$
```

NEW QUESTION: 3

□□□ □□□ □□ Python □□□□□ □□□□ Kubernetes □□□ □□□□. □□□□□ □□ □□ □ 30□□ □□□, □□ □ □□□ □□ 3□□□ □□□□□ □□□. □□, □□□ □□ 45□ □□□ □□□□□ □□□□ □□□. □□□ □□□ □□□□ □□ YAML □□□ □□□□□.

Answer:

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□□□(□□□):

1. Job YAML □□□ □□□□.

1. Create Pod (HPA) .

- 'kubectl create hpa' 'bookstore-hpa' HPA .

- 'minReplicas' 2, 'maxReplicas' 5 .

- 'targetCPUUtilizationPercentage' 70 . CPU 70% .

- 'bookstore-deployment' .

```
apiVersion: autoscaling/v2beta2
kind: HorizontalPodAutoscaler
metadata:
  name: bookstore-hpa
spec:
  scaleTargetRef:
    apiVersion: apps/v1
    kind: Deployment
    name: bookstore-deployment
  minReplicas: 2
  maxReplicas: 5
  metrics:
  - type: Resource
    resource:
      name: cpu
      targetAverageUtilization: 70
```

2. HPA : - 'kubectl apply -f bookstore-hpa.yaml' HPA . 3. HPA :

- 'kubectl get hpa bookstore-hpa' HPA . 4. HPA : -

HPA . - 'kubectl get deployments bookstore-deployment' 'bookstore-deployment' . CPU

5. HPA : -

'targetCPUUtilizationPercentage',

'minReplicas' 'maxReplicas' .

NEW QUESTION: 5

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Set configuration context:

```
[student@node-1] $ kubectl config
use-context k8s
```



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kdsn00101 □□□□□□□ □□ □□□ kdsn00101-deployment□□ □□□ □□□□□. □□□
□□ □□□□□.

* □□□ □□□ □□ Pod□ □□□□ □□ Pod □□□ □□□□□□ func=webFrontEnd □/□ □
□□□ □□□□□.

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□□□□, kdsn00101 □□□□□□□ □□□ □□□□ □□□□ □□□□□.

* TCP □□ 8080□□ □□□□ □□□□□.

*□ kdsn00101-deployment □□□ □□ □□□ □□□ □□□□□.

* NodePort □□□□□.

* □□□□ □□□ □□□ □□□□□

Answer:

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```
student@node-1:~$ kubectl edit deployment kdsn00101-deployment -n kdsn00101
```

Readme Web Terminal THE LINUX FOUNDATION

```
Please edit the object below. Lines beginning with a '#' will be ignored,
and an empty file will abort the edit. If an error occurs while saving this file will be
reopened with the relevant failures.
#
apiVersion: apps/v1
kind: Deployment
metadata:
  annotations:
    deployment.kubernetes.io/revision: "1"
    creationTimestamp: "2020-08-20T08:50:39Z"
  labels:
    app: nginx
  name: kdsn00101-deployment
  namespace: kdsn00101
  resourceVersion: "10"
  selfLink: /apis/apps/v1/namespaces/kdsn00101/deployments/kdsn00101-deployment
  uid: 8d3ace00-7761-4189-ba10-fbc676c311bf
spec:
  progressDeadlineSeconds: 600
  replicas: 1
  revisionHistoryLimit: 10
  selector:
    matchLabels:
      app: nginx
  strategy:
    type: RollingUpdate
  template:
    metadata:
      labels:
        app: nginx
    spec:
      containers:
      - image: nginx
        name: nginx
        ports:
        - containerPort: 80
        resources: {}
      restartPolicy: Always
status: {}
```

"/tmp/kubectl-edit-d4y5r.yaml" 70L, 1957C 1,1 Top

Readme
Web Terminal

THE LINUX FOUNDATION

```

uid: 8d3ace00-7761-4189-ba10-fbc676c311bf
spec:
  progressDeadlineSeconds: 600
  replicas: 4
  revisionHistoryLimit: 10
  selector:
    matchLabels:
      app: nginx
  strategy:
    rollingUpdate:
      maxSurge: 25%
      maxUnavailable: 25%
    type: RollingUpdate
  template:
    metadata:
      creationTimestamp: null
      labels:
        app: nginx
        func: webFrontEnd
    spec:
      containers:
      - image: nginx:latest
        imagePullPolicy: Always
        name: nginx
        ports:
        - containerPort: 80
:
student@node-1:~$ kubectl edit deployment kdsn00101-deployment -n kdsn00101
deployment.apps/kdsn00101-deployment edited
student@node-1:~$ kubectl get deployment kdsn00101-deployment -n kdsn00101
NAME                READY   UP-TO-DATE   AVAILABLE   AGE
kdsn00101-deployment 4/4      4             4           7h17m
student@node-1:~$ kubectl expose deployment kdsn00101-deployment -n kdsn00101 --type NodePort --
port 8080 --name cherry
service/cherry exposed

```

NEW QUESTION: 6

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* □/□ □(key1/value4)□ □□□□ another-secret□□□ □□□ □□□ □□□□□.

* □□□□ □□□ nginx□ □□□□ nginx-secret□□□ □□□ nginx pod□ □□□□, pod □□
 □□□ □□ □□□□ COOL_VARIABLE□ □□□□ □□ □□ 1□ □□ □□□□ □□ □□□
 □□□□□.

Answer:

```
student@node-1:~$ kubectl create secret generic some-secret --from-literal=key1=value4
secret/some-secret created
student@node-1:~$ kubectl get secret
NAME                                TYPE                                DATA      AGE
default-token-4kvr5                kubernetes.io/service-account-token 3           2d11h
some-secret                        Opaque                              1           5s
student@node-1:~$ kubectl run nginx-secret --image=nginx --dry-run=client -o yaml > nginx_secret.yml
student@node-1:~$ vim nginx_secret.yml
```

[illegible]

```
apiVersion: v1
kind: Pod
metadata:
  labels:
    run: nginx-secret
    name: nginx-secret
spec:
  containers:
  - image: nginx
    name: nginx-secret
    env:
    - name: COOL_VARIABLE
      valueFrom:
        secretKeyRef:
          name: some-secret
          key: key1
```

~
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~

-- INSERT --

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All

```
student@node-1:~$ kubectl get pods -n web
NAME      READY   STATUS    RESTARTS   AGE
cache     1/1     Running   0           9s
student@node-1:~$ kubectl create secret generic some-secret --from-literal=key1=value4
secret/some-secret created
student@node-1:~$ kubectl get secret
NAME                TYPE      DATA   AGE
default-token-4kvr5 kubernetes.io/service-account-token 3      2d1h
some-secret         Opaque    1       5s
student@node-1:~$ kubectl run nginx-secret --image=nginx --dry-run-client -o yaml > nginx_secret.yaml
student@node-1:~$ vim nginx_secret.yaml
student@node-1:~$ kubectl create -f nginx_secret.yaml
pod/nginx-secret created
student@node-1:~$ kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
liveness-http 1/1     Running   0           6h38m
nginx-101     1/1     Running   0           6h39m
nginx-secret  0/1     ContainerCreating 0         4s
poller        1/1     Running   0           6h39m
student@node-1:~$ kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
liveness-http 1/1     Running   0           6h38m
nginx-101     1/1     Running   0           6h39m
nginx-secret  1/1     Running   0           8s
poller        1/1     Running   0           6h39m
student@node-1:~$
```

NEW QUESTION: 7



You must switch to the correct cluster/configuration context. Failure to do so may result in a zero score.

```
[candidate@node-1] $ kubectl config use-context nk8s
```

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ckad00018 □□□□□□□□ Pod ckad00018-newpod□ □□□□□□ Pod□ Pod □ □ DB□□
□□□□ □□□ □□ □ □□□ NetworkPolicy□ □□□□□.



Answer:

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```
candidate@node-1:~$ kubectl config use-context nk8s
Switched to context "nk8s".
candidate@node-1:~$ kubectl describe netpol -n ckad00018

Name:         all-access
Namespace:    ckad00018
Created on:   2022-09-24 04:27:37 +0000 UTC
Labels:       <none>
Annotations:  <none>
Spec:
  PodSelector:  all-access=true
  Allowing ingress traffic:
    To Port: <any> (traffic allowed to all ports)
    From: <any> (traffic not restricted by source)
  Allowing egress traffic:
    To Port: <any> (traffic allowed to all ports)
    To: <any> (traffic not restricted by destination)
  Policy Types: Ingress, Egress

Name:         default-deny
Namespace:    ckad00018
Created on:   2022-09-24 04:27:37 +0000 UTC
Labels:       <none>
Annotations:  <none>
Spec:
  PodSelector:  <none> (Allowing the specific traffic to all pods in this namespace)
  Allowing ingress traffic:
    <none> (Selected pods are isolated for ingress connectivity)
  Not affecting egress traffic
  Policy Types: Ingress

candidate@node-1:~$ kubectl label pod ckad00018-newpod -n ckad00018 web-access=true
pod/ckad00018-newpod labeled
candidate@node-1:~$ kubectl label pod ckad00018-newpod -n ckad00018 db-access=true
pod/ckad00018-newpod labeled
candidate@node-1:~$
```

NEW QUESTION: 8

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 □ ResourceQuota□ □□□ □□□□ □□□?

Answer:

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1). ResourceQuota□ □□□□□.

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- CPU□ □□□□ □□ □□ □□ □□□ □□□□□□□ □□□ □□□ □□□□□.

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```
apiVersion: v1
kind: ResourceQuota
metadata:
  name: resource-limit
spec:
  limits:
    requests.cpu: "2" # Set the maximum CPU request for the application
    requests.memory: "4Gi" # Set the maximum memory request for the application
    pods: "5" # Set the maximum number of Pods allowed for the application
```

2. ResourceQuota□ □□□□□. - 'kubectl apply -f resource-limit.yaml'□ □□□□

ResourceQuota □□□ □□□□□. 3. □□□ □□□ □□□□□□. - □□□ □□□ □□ □□□
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NEW QUESTION: 9



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□□ □□□□ □□□□ ConfigMap□ □□□□ Pod□□ ConfigMap□ □□□□ □□□ □□□□
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* □/□ □□ □□□□ another-config□□ ConfigMap□ □□□□: key4/value3

Answer:

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```
apiVersion: v1
kind: Pod
metadata:
  creationTimestamp: null
  labels:
    run: nginx-configmap
  name: nginx-configmap
spec:
  containers:
  - image: nginx
    name: nginx-configmap
    resources: {}
  dnsPolicy: ClusterFirst
  restartPolicy: Always
status: {}
```

```
apiVersion: v1
kind: Pod
metadata:
  labels:
    run: nginx-configmap
    name: nginx-configmap
spec:
  containers:
  - image: nginx
    name: nginx-configmap
    volumeMounts:
    - name: myvol
      mountPath: /also/a/path
  volumes:
  - name: myvol
    configMap:
      name: another-config
~
~
~
~
~
~
~
```

13,6

All

```
student@node-1:~$ kubectl create configmap another-config --from-literal=key4=value3
configmap/another-config created
student@node-1:~$ kubectl get configmap
NAME          DATA   AGE
another-config 1       5s
student@node-1:~$ kubectl run nginx-configmap --image=nginx --dry-run=client -o yaml > nginx_configmap.yaml
student@node-1:~$ vim nginx_configmap.yaml ^C
student@node-1:~$ mv nginx_configmap.yaml nginx_configmap.yaml
student@node-1:~$ vim nginx_configmap.yaml
student@node-1:~$
```

```
student@node-1:~$ kubectl run nginx-configmap --image=nginx --dry-run=client -o yaml > nginx_configmap.yaml
student@node-1:~$ vim nginx_configmap.yaml ^C
student@node-1:~$ mv nginx_configmap.yaml nginx_configmap.yaml
student@node-1:~$ vim nginx_configmap.yaml
student@node-1:~$ kubectl create f nginx_configmap.yaml
Error: must specify one of -f and -k

error: unknown command "f nginx_configmap.yaml"
See 'kubectl create -h' for help and examples
student@node-1:~$ kubectl create -f nginx_configmap.yaml
error: error validating "nginx_configmap.yaml": error validating data: ValidationError(Pod.spec.containers[1]): unknown field "mountPath" in io.k8s.api.core.v1.Container; if you choose to ignore these errors, turn validation off with --validate=false
student@node-1:~$ vim nginx_configmap.yaml
```

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THE LINUX FOUNDATION

```
student@node-1:~$ kubectl create -f nginx_configmap.yaml
Error: must specify one of -f and -k

error: unknown command "f nginx_configmap.yaml"
See 'kubectl create -h' for help and examples
student@node-1:~$ kubectl create -f nginx_configmap.yaml
error: error validating "nginx_configmap.yaml": error validating data: ValidationError(Pod.spec.containers[1]): unknown field "mountPath" in io.k8s.api.core.v1.Container; if you choose to ignore these errors, turn validation off with --validate=false
student@node-1:~$ vim nginx_configmap.yaml
student@node-1:~$ kubectl create -f nginx_configmap.yaml
pod/nginx-configmap created
student@node-1:~$ kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
liveness-http 1/1     Running   0           6h44m
nginx-101     1/1     Running   0           6h45m
nginx-configmap 0/1     ContainerCreating 0           5s
nginx-secret  1/1     Running   0           5m39s
poller        1/1     Running   0           6h44m
student@node-1:~$ kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
liveness-http 1/1     Running   0           6h44m
nginx-101     1/1     Running   0           6h45m
nginx-configmap 1/1     Running   0           8s
nginx-secret  1/1     Running   0           5m42s
poller        1/1     Running   0           6h45m
student@node-1:~$
```

NEW QUESTION: 10

☐ ☐



☐ ☐

_____ Pod _____.

☐

_____, _____ _____ _____.

* ____ busybox _____ YAML _____

____ /opt/KDPD00301/periodic.yaml _____. ____ 1_____ 22 ____

_____ Cronjob _____ hello

_____.

* _____.

Answer:

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ReadmeWeb Terminal

THE LINUX FOUNDATION

```
student@node-1:~$ kubectl create cronjob hello --image=busybox --schedule "* * * * *" --dry-run=
client -o yaml > /opt/KDPD00301/periodic.yaml
error: unable to match a printer suitable for the output format "yaml", allowed formats are: go-t
emplate,go-template-file,json,jsonpath,jsonpath-as-json,jsonpath-file,name,template,templatefile
,yaml
student@node-1:~$ kubectl create cronjob hello --image=busybox --schedule "* * * * *" --dry-run=
client -o yaml > /opt/KDPD00301/periodic.yaml
student@node-1:~$ vim /opt/KDPD00301/periodic.yaml
```

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THE LINUX FOUNDATION

```
apiVersion: batch/v1beta1
kind: CronJob
metadata:
  name: hello
spec:
  jobTemplate:
    metadata:
      name: hello
    spec:
      template:
        spec:
          containers:
            - image: busybox
              name: hello
              args: ["/bin/sh", "-c", "date"]
          restartPolicy: Never
  schedule: "* */1 * * * *"
  startingDeadlineSeconds: 60
  concurrencyPolicy: Allow
```

19,26All

ReadmeWeb Terminal

THE LINUX FOUNDATION

```
student@node-1:~$ kubectl create cronjob hello --image=busybox --schedule "* * * * *" --dry-run=
client -o yaml > /opt/KDPD00301/periodic.yaml
error: unable to match a printer suitable for the output format "yaml", allowed formats are: go-t
emplate,go-template-file,json,jsonpath,jsonpath-as-json,jsonpath-file,name,template,templatefile
,yaml
student@node-1:~$ kubectl create cronjob hello --image=busybox --schedule "* * * * *" --dry-run=
client -o yaml > /opt/KDPD00301/periodic.yaml
student@node-1:~$ vim /opt/KDPD00301/periodic.yaml
student@node-1:~$ kubectl create -f /opt/KDPD00301/periodic.yaml
cronjob.batch/hello created
student@node-1:~$ kubectl get cronjob
NAME          SCHEDULE          SUSPEND   ACTIVE   LAST SCHEDULE   AGE
hello        * */1 * * * *    False    0        <none>           6s
student@node-1:~$
```

NEW QUESTION: 11

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Answer:

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1. □□□ □□□ □□:

- □□□ □□□□ □□ Kubernetes □□□□ □□□□ □□ □□□ □□□□□.

- □□□□ '□□□□'□ □□□ □□□ □□□□ □□□□□ □□□□□.

apiVersion: v1

kind: Service

metadata:

name: backend-service

spec:

selector:

app: backend

ports:

- protocol: TCP

port: 8080

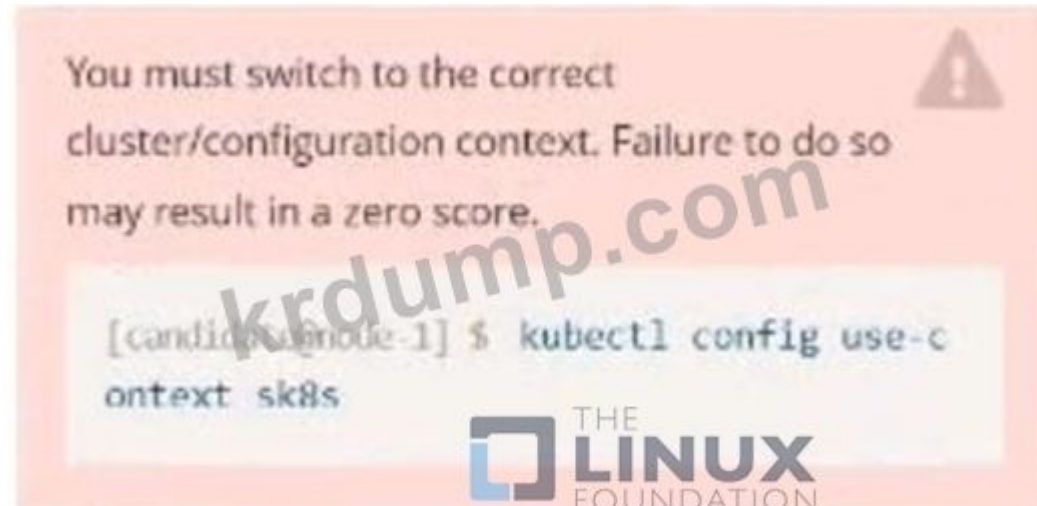
targetPort: 8080

2. □□□□□ □□□ □□: - □□□□□ □□□□ □□ □□□□□ □□□ □□□□□. - □□□□
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NEW QUESTION: 12

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□:

1) □□ ckad00017 □□□□□□□□ Deployment cka00017-deployment□ □□□□□□□.

*□□□ □□□ 2□□ □□□□□

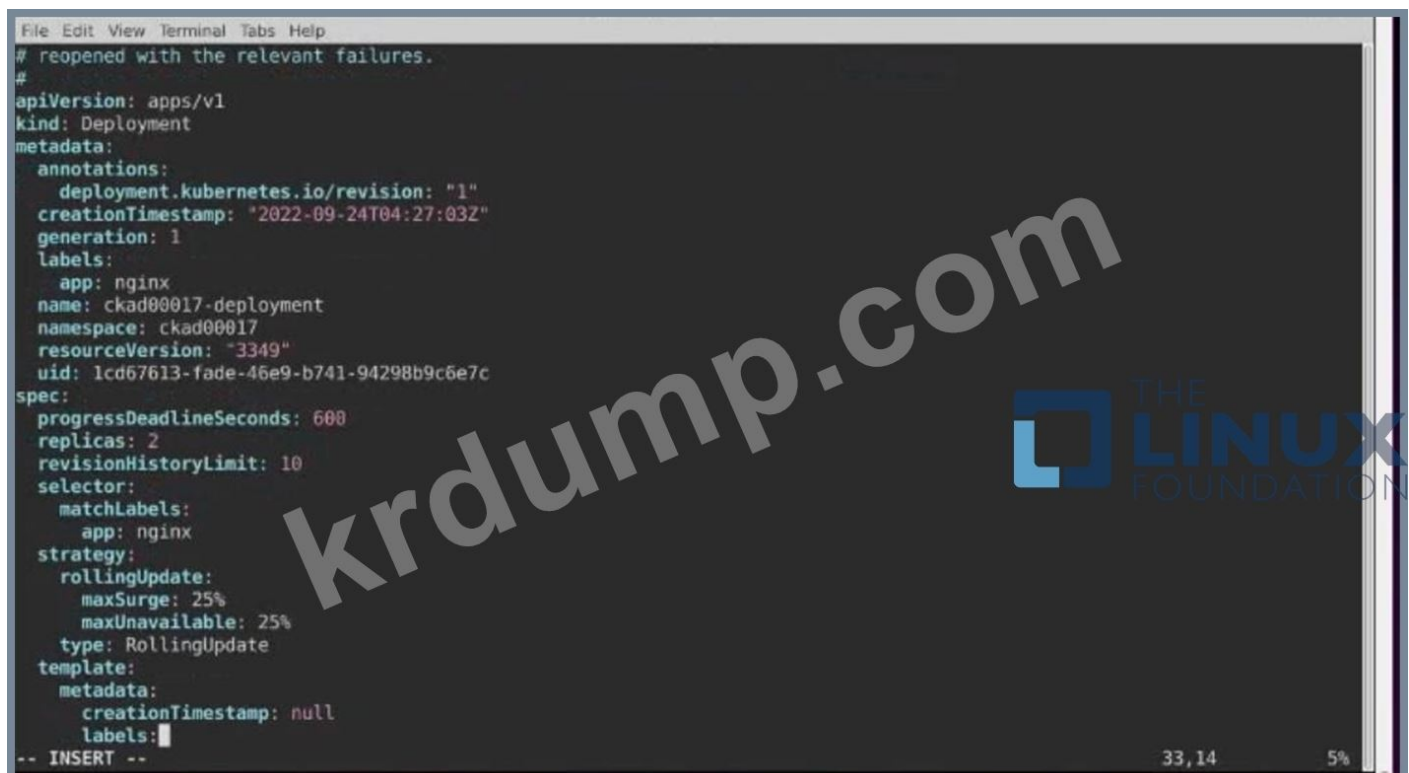
*□□□ □□ □□□ □□□□□:

□□ userUI

2) □□□□, ckad00017 namespace□ cherry□□ □□□ NodePort □□□□ □□□□ TCP □□
8888□□ ckad00017-deployment □□□ □□□□□.

Answer:

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File Edit View Terminal Tabs Help

```
name: ckad00017-deployment
namespace: ckad00017
resourceVersion: "3349"
uid: 1cd7613-fade-46e9-b741-94298b9c6e7c
spec:
  progressDeadlineSeconds: 600
  replicas: 2
  revisionHistoryLimit: 10
  selector:
    matchLabels:
      app: nginx
  strategy:
    rollingUpdate:
      maxSurge: 25%
      maxUnavailable: 25%
    type: RollingUpdate
  template:
    metadata:
      creationTimestamp: null
      labels:
        app: nginx
        role: userUI
    spec:
      containers:
        - image: nginx:latest
          imagePullPolicy: Always
          name: nginx
          ports:
            - containerPort: 80
              protocol: TCP
          resources: {}
```

-- INSERT --

35.21

33%

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```
backend-deployment-59d449b99d-h2zjq 0/1 Running 0 9s
backend-deployment-78976f74f5-b8c85 1/1 Running 0 6h40m
backend-deployment-78976f74f5-flfsj 1/1 Running 0 6h40m
candidate@node-1:~$ kubectl get deploy -n staging
NAME READY UP-TO-DATE AVAILABLE AGE
backend-deployment 3/3 3 3 6h40m
candidate@node-1:~$ kubectl get deploy -n staging
NAME READY UP-TO-DATE AVAILABLE AGE
backend-deployment 3/3 3 3 6h41m
candidate@node-1:~$ vim ~/spicy-pikachu/backend-deployment.yaml
candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ kubectl set serviceaccount deploy app-1 app -n frontend
deployment.apps/app-1 serviceaccount updated
candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ vim ~/prompt-escargot/buffalo-deployment.yaml
candidate@node-1:~$ vim ~/prompt-escargot/buffalo-deployment.yaml
candidate@node-1:~$ kubectl apply -f ~/prompt-escargot/buffalo-deployment.yaml
deployment.apps/buffalo-deployment configured
candidate@node-1:~$ kubectl get pods -n gorilla
NAME READY STATUS RESTARTS AGE
buffalo-deployment-776844d77f-r5fsb 1/1 Running 0 6h38m
buffalo-deployment-859898c6f5-zx5gj 0/1 ContainerCreating 0 8s
candidate@node-1:~$ kubectl get deploy -n gorilla
NAME READY UP-TO-DATE AVAILABLE AGE
buffalo-deployment 1/1 1 1 6h38m
candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ kubectl edit deploy ckad00017-deployment -n ckad00017
deployment.apps/ckad00017-deployment edited
candidate@node-1:~$
```

File Edit View Terminal Tabs Help

```
candidate@node-1:~$ kubectl get pods -n gorilla
NAME                                READY   STATUS    RESTARTS   AGE
buffalo-deployment-776844df7f-r5fsb 1/1     Running   0           6h38m
buffalo-deployment-859898c6f5-zx5gj 0/1     ContainerCreating 0           8s
candidate@node-1:~$ kubectl get deploy -n gorilla
NAME                READY   UP-TO-DATE   AVAILABLE   AGE
buffalo-deployment 1/1     1             1           6h38m
candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ kubectl edit deploy ckad00017-deployment -n ckad00017
deployment.apps/ckad00017-deployment edited
candidate@node-1:~$ kubectl expose deploy ckad00017-deployment -n ckad00017
ckad00014 ckad00015 ckad00017
candidate@node-1:~$ kubectl expose deploy ckad00017-deployment -n ckad00017
ckad00014 ckad00015 ckad00017
candidate@node-1:~$ kubectl expose deploy ckad00017-deployment -n ckad00017
ckad00014 ckad00015 ckad00017
candidate@node-1:~$ kubectl expose deploy ckad00017-deployment -n ckad00017
ckad00014 ckad00015 ckad00017
candidate@node-1:~$ kubectl expose deploy ckad00017-deployment -n ckad00017
ckad00014 ckad00015 ckad00017
candidate@node-1:~$ kubectl expose deploy ckad00017-deployment -n ckad00017
ckad00014 ckad00015 ckad00017
candidate@node-1:~$ kubectl expose deploy ckad00017-deployment -n ckad00017
ckad00014 ckad00015 ckad00017
candidate@node-1:~$ kubectl expose deploy ckad00017-deployment -n ckad00017
ckad00014 ckad00015 ckad00017
candidate@node-1:~$ kubectl expose deploy ckad00017-deployment -n ckad00017 --name=cherry --port=8888 --type=NodePort
service/cherry exposed
candidate@node-1:~$
```

```
candidate@node-1:~$ kubectl get svc
NAME                TYPE        CLUSTER-IP   EXTERNAL-IP   PORT(S)    AGE
kubernetes          ClusterIP   10.96.0.1    <none>        443/TCP    77d
candidate@node-1:~$ kubectl get svc -n ckad00017
NAME                TYPE        CLUSTER-IP   EXTERNAL-IP   PORT(S)    AGE
cherry              NodePort    10.100.100.176 <none>        8888:30683/TCP 24s
candidate@node-1:~$ kubectl expose service deploy ckad00017-deployment -n ckad00017 --name=cherry --port=8888 --type=NodePort
Error from server (NotFound): services "deploy" not found
Error from server (NotFound): services "ckad00017-deployment" not found
candidate@node-1:~$ kubectl get svc -n ckad00017
NAME                TYPE        CLUSTER-IP   EXTERNAL-IP   PORT(S)    AGE
cherry              NodePort    10.100.100.176 <none>        8888:30683/TCP 46s
candidate@node-1:~$
```

File Edit View Terminal Tabs Help

```
candidate@node-1:~$ kubectl expose service deploy ckad00017-deployment -n ckad00017 --name=cherry --port=8888 --type=NodePort
Error from server (NotFound): services "deploy" not found
Error from server (NotFound): services "ckad00017-deployment" not found
candidate@node-1:~$ kubectl get svc -n ckad00017
NAME                TYPE        CLUSTER-IP   EXTERNAL-IP   PORT(S)    AGE
cherry              NodePort    10.100.100.176 <none>        8888:30683/TCP 46s
candidate@node-1:~$ history
1 vi ~/spicy-pikachu/backend-deployment.yaml
2 kubectl config use-context sk8s
3 vim .vimrc
4 vim ~/spicy-pikachu/backend-deployment.yaml
5 kubectl apply -f ~/spicy-pikachu/backend-deployment.yaml
6 kubectl get pods -n staging
7 kubectl get deploy -n staging
8 vim ~/spicy-pikachu/backend-deployment.yaml
9 kubectl config use-context k8s
10 kubectl set serviceaccount deploy app-1 app-1n-frontend
11 kubectl config use-context k8s
12 vim ~/prompt-eschgot/buffalo-deployment.yaml
13 kubectl apply -f ~/prompt-eschgot/buffalo-deployment.yaml
14 kubectl get pods -n gorilla
15 kubectl get deploy -n gorilla
16 kubectl config use-context k8s
17 kubectl edit deploy ckad00017-deployment -n ckad00017
18 kubectl expose deploy ckad00017-deployment -n ckad00017 --name=cherry --port=8888 --type=NodePort
19 kubectl get svc
20 kubectl get svc -n ckad00017
21 kubectl expose service deploy ckad00017-deployment -n ckad00017 --name=cherry --port=8888 --type=NodePort
22 kubectl get svc -n ckad00017
23 history
candidate@node-1:~$
```

NEW QUESTION: 13

Kubernetes □□□□ □ □□ □□□□□ □□ □□□ □□ TLS □□□□ □□□ □□□□□□□□ □□□□. □□□□ □□ □□ □□□□□ □□□□□ □□□□ □□ □□□□ □□ □□□□ □□ □□□□□ □□□ □□ □□□□?

Answer:

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□□□(□□□):

1. □□□□ □ □□:

- □□□□ □□ □□ □□ □□□ 'openssl'□ □□ □□□ □□□□ □□□ □ □□□□□. □□ □□□

openssl req -x509 -newkey rsa:2048 -keyout □□ □ -out cert.pem -days 365 -nodes

- □□□ □□ 'private-key'(□□ □)□ 'cert.pem'(□□□)□□□ □ □□ □□□ □□□□□.

2. Kubernetes Secret□ □□□□□.

- 'tls-secret.yaml'□ □□ YAML □□□ □□□□.

```
apiVersion: v1
kind: Secret
metadata:
  name: tls-secret
type: TLS
data:
  tls.crt:
  tls.key:
```

- □ □ Base64□ □□□□ □□□ □ □ □□□ □□□□ □□□□. □□□□□ 'base64' □□□ □□□ □ □□□□. bash echo "certificate content" | base64 echo "private key content" | base64

3. □□ □□: - □□□□□ □□□□□ □□□ □□□□□. bash kubectl apply -f tls-secret.yaml 4.

□□ □□: - □□ YAML □□□ □□□ □□□□□.

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: my-app
spec:
  template:
    spec:
      containers:
        - name: my-app
          image: your-image:latest
          volumeMounts:
            - name: tls-secret-volume
              mountPath: /var/secrets/tls
      volumes:
        - name: tls-secret-volume
          secret:
            secretName: tls-secret
```

5. □□□□□□ □□□□: - □□□□□□□ □□□□□ □□□□□ TLS □□□□ □□ □□□□□ □□□□□ □□□. □□□□ □□□ □□□□□□□ □□ □□□□□. - □□□□□ □□□ □ □ □ □□ □□□ □□□□ □□ □□(□: 'TLS_CERT_FILE' □ 'TLS_KEY_FILE')□ □□□□□.

NEW QUESTION: 14

1. 在 Kubernetes 中，Pod 是部署和管理容器的基本单元。Pod 可以包含一个或多个容器，这些容器共享相同的网络命名空间和存储卷。Pod 的生命周期由 Kubernetes 控制平面管理，包括创建、调度、启动、运行、停止和删除。

Answer:

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□ □ :

□ □ □ (□ □ □) :

1. CronJob □□□ □□: □□□□□□□ □□ □□ □□ □□□ □□□□ CronJob □□□□ □□
□□□. □ □□□□ □□□ □□□ □□□□ □□□ □□□.

```
apiVersion: batch/v1
kind: CronJob
metadata:
  name: daily-report-generator
spec:
  schedule: "0 0 * * *" # Runs at midnight every day
  jobTemplate:
    spec:
      template:
        spec:
          containers:
            - name: report-generator
              image: your-image-repository:latest
              command: ["/bin/bash", "-c", "python /app/report_generator.py"]
          restartPolicy: OnFailure # Restart the pod if the job fails
```

2. JOb : JOb
 . JOD CronJob .

```
apiVersion: batch/v1
kind: Job
metadata:
  name: daily-report-generator-job
spec:
  template:
    spec:
      containers:
      - name: report-generator
        image: your-image-repository:latest
        command: ["/bin/bash", "-c", "python /app/report_generator.py"]
        restartPolicy: OnFailure # Restart the pod if the job fails
```

3. □□□ □□ □□ □□: □□ □□□□□ □□□ □□□□ □□□□ □□□ □□□ □□
 (CPU, □□□)□ □□□□□.

4. □□ □□ □□: Python □□□□□□ □□□ □□ □□□ □□□
 □□. □□□ □□□□ □□□□ Elasticsearch□ □□ □□ □□□□ □□□□□.

5. □□ □□□
 □ □□□: 'kubectl get jobs' □□ kubectl get pods -l job-name=daily-report-generator-job'□ □□
 □□□ □□□□ □□ □□□ □□□□□□□□. □□□□ □□□ □□□□□□□□.

6. □□/□□□
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 'spec'□ 'backoffLimit' □□□ □□□□ □□ □□□□ □□□ □□□□ □ □□□□.

7. □□ □□:
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8. □□ □□ □□: 7. □□ □□: □□□ □□□□ □□ □□□ □□□ □ □□□□ □□

□□ □□(□: □□ □□, □□□□ □□□□)□ □□□□ □□□. □□ □□ □□: 'your-image-repository:latest'□ □□ □□□ □□□ □ □□□ □□ □□□□□ □□□ □□□□. CronJob □ □□ 'schedule'□ □□□ □□ □□□ □□ □□□□□. □□□□□□ □□ □□□ □□ □□□ □ □□ □□□ □□ □□ □ □□□ □□□ □□□ □ □□□□. □□ □□□□

(report_generator.py): python import datetime import logging level logging logging.basicConfig(filename='report.log', level=logging.INFO)

```
def generate_report():
# Logic to generate the report
report_data = "This is the daily report"
with open("report.txt", "w") as file:
file.write(report_data)
name = "main"
try:
generate_report()
logging.info(f"Report generated successfully at {datetime.datetime.now()}")
except Exception as e:
logging.error(f"Error generating report: {e}")
|
```

NEW QUESTION: 15

'wordpress-deployment'□□ □□□ □□□ □□□, □ □□□ 'wordpress:latest' □□□□ □□□ □ Wordpress □□□□□ □□□ 3□□ □□□□□. □ □□□□ Docker Hub □□□ 'my-wordpress-repo/wordpressaatest'□ □□□□ □□□ □ □□□□ □□□□□ □□□□ □□□□ □□□ □□ □□□. □□, □ □□ □□□ Pod□ □□□□□□ □□ □□□□ □□□ □□□□ □□. □□ □□□ □□□ □ □□ Pod□ □□ □□□ 1□□□ □□□.

Answer:

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□□□(□□□) :

1. □□ YAML□ □□□□□□□.

- □□ □□□□ □□ □□□□ □□□ Docker Hub □□□□□ □□ □□□□ □□□□□ □□□ □□□□ □□□ 'imagePullPolicy: Always'□ □□□□□.

- □□ □□□□ □□□ □□□□□□ 'strategy-type: Rollingupdate'□ □□□□□.

- □□□□ □□□□ □□ □ □□□ Pod□ □□□ □ □□□

'strategy.rollingupdate.maxonavailable: l'□ □□□□□.

- 'strategy-rollingUpdate.maxSurge: O'□ □□□□ □□□□ □□ □□□□ Pod □□ 0□□ □□ □□□.

NEW QUESTION: 16

Flask □□□□□□□ □□□□ 'my-app-deployment'□□ □□□ □□□□. □□□□ □□ □□□ Pod□ □□□ □ □□□ □□ □□□□ □□□ □□□□ □□□. □□ Docker Hub □□□□ □ □□□ □□□ □□□ □□ □□□□□ □□□□□□□ □□□. □□, □□□□ □□□□ □□ □□

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Answer:

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□□□(□□□):

1. □□ □□□□□ □□ □□:

- 'my-app-deployment' □□ □□□ □□□□□□ □□□ □□□□□.
- 'replicas': □□ 1□□ □□□ □ □□ Pod□ □□ □□□□□ □□□□□ 2□ □□□□□.
- 'maxUnavailable: 1': □□ □□□□ □□ □□ 1□□ Pod□ □□□ □ □□□ □□□□□.
- 'maxSurge: 0': □□ □□□ □□□□ □□□ □□□ □□□ □□□ □□□□□.
- 'imagePullPolicy: Always': □□□ □□ □□□ □□□□□ □□ □□□□ □□□□ □□□.
- 'strategy.type: RollingUpdate': □□ □□□□ □□□ □□□□□.

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: my-app-deployment
spec:
  replicas: 2
  selector:
    matchLabels:
      app: my-app
  template:
    metadata:
      labels:
        app: my-app
    spec:
      containers:
        - name: my-app
          image: my-app-image:latest
          imagePullPolicy: Always
      strategy:
        type: RollingUpdate
        rollingUpdate:
          maxUnavailable: 1
          maxSurge: 0
```

2. □□ □□ □□: - □□□□□ YAML □□□ □□□□□ □□□□□. 'kubectl apply -f my-app-deployment.yaml'
3. □□□□□□ □□ □□: - Flask □□□□□□□ □□□ □□□□□□□□
- 'kubectl logs'□ □□ □□□ Fluentd □□ ElasticSearch□ □□ □□ □□ □□□□ □□□□□. -
- 'kubectl logs'□ □□□ □ bash kubectl logs -f my-app-deployment-pod-name - □□ □□□□ □
- □□□ □□□ □□□ □□□ □□□ □□□ □□□ □□□ □□□□□. 4. □□ □□□□ □
- : - □□□□□ □□□ □ □□□□ 'my-app-image:latest' Docker Hub □□□□ □□□□□. 5.
- □□□□: - □□ □□□□ □□ 'kubectl get pods -l app=my-app'□ □□□□ □□□ □□□
- . 6. □□ □□ □□: - 'kubectl describe deployment my-app-deployment'□ □□□□ □□
- □□□□□. 'updatedReplicas' □□□ 'replicas' □□□ □□□□ □□, □□ □□□□□ □
- □□□□□.

<https://www.dumptop.com/Linux-Foundation/CKAD-dump.html> (193 Q&As Dumps, **30%OFF**)

NEW QUESTION: 17

Answer:

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1. □□□ □□ □□□ □□□□.

□ □ :

- `□□.yaml`

2. deployment-yaml ☐☐☐ ☐☐☐☐.

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: nginx-deployment
spec:
  replicas: 3
  selector:
    matchLabels:
      app: nginx
  template:
    metadata:
      labels:
        app: nginx
    spec:
      containers:
        - name: nginx
          image: example/nginx:v1
          resources:
            requests:
              cpu: "50m"
              memory: "100Mi"
          livenessProbe:
            httpGet:
              path: /healthz
              port: 80
            initialDelaySeconds: 15
            periodSeconds: 20
          readinessProbe:
            httpGet:
              path: /healthz
              port: 80
            initialDelaySeconds: 5
            periodSeconds: 10
          imagePullSecrets:
            - name: myregistrykey
```

3. `spec.strategy.storageClass` - 'deployment.yaml' `spec.strategy.storageClass` `spec.strategy.storageClass`.

```
strategy:
  type: RollingUpdate
  rollingUpdate:
    maxSurge: 1
    maxUnavailable: 1
```

4. Prometheus Grafana . - Kubernetes Prometheus Grafana . - Prometheus . - Grafana . 5. Prometheus . - . - . 6. . - . 'kubectl rollout undo' . 7. 'example/nginx:v2' . 8. Kubernetes . bash kubectl apply -f deployment-yaml - 'rollingUpdate' 'maxSurge' 'maxUnavailable' . - Prometheus Grafana . - Prometheus . - . - . .

NEW QUESTION: 18

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Kubernetes

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* kdpd00202 `maxSurge: 5%`, `maxUnavailable: 2%`

* `lfccnrf/nginx` `1.13` `web1`

* `nginx`

Answer:

`nginx`:

```
student@node-1:~$ kubectl edit deployment app -n kdpd00202
```

```
uid: 1dfa2527-5c61-46a9-8dd3-e24643d3ce14
spec:
  progressDeadlineSeconds: 600
  replicas: 10
  revisionHistoryLimit: 10
  selector:
    matchLabels:
      app: nginx
  strategy:
    rollingUpdate:
      maxSurge: 5%
      maxUnavailable: 2
    type: RollingUpdate
  template:
    metadata:
      creationTimestamp: null
      labels:
        app: nginx
    spec:
      containers:
      - image: lfccnrf/nginx:1.13
        imagePullPolicy: IfNotPresent
        name: nginx
        ports:
        - containerPort: 80
          protocol: TCP
```

```
Readme Web Terminal THE LINUX FOUNDATION

student@node-1:~$ kubectl edit deployment app -n kdpd00202
deployment.apps/app edited
student@node-1:~$ kubectl rollout status deployment app -n kdpd00202
Waiting for deployment "app" rollout to finish: 6 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 7 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 7 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 7 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 8 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 8 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 8 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 8 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 9 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 9 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 9 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 1 old replicas are pending termination...
Waiting for deployment "app" rollout to finish: 8 of 10 updated replicas are available...
Waiting for deployment "app" rollout to finish: 9 of 10 updated replicas are available...
deployment "app" successfully rolled out
student@node-1:~$ kubectl rollout undo deployment app -n kdpd00202
deployment.apps/app rolled back
student@node-1:~$ kubectl rollout status deployment app -n kdpd00202
Waiting for deployment "app" rollout to finish: 6 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 6 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 6 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 6 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 7 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 7 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 9 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 9 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 9 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 1 old replicas are pending termination...
Waiting for deployment "app" rollout to finish: 1 old replicas are pending termination...
Waiting for deployment "app" rollout to finish: 1 old replicas are pending termination...
Waiting for deployment "app" rollout to finish: 8 of 10 updated replicas are available...
Waiting for deployment "app" rollout to finish: 9 of 10 updated replicas are available...
deployment "app" successfully rolled out
student@node-1:~$
```

NEW QUESTION: 19

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□ 'app-config'□□ ConfigMap□ □□□□□. ConfigMap□ □□□□□□□□ □ □□□□□□
Pod□ □□ □□ □□□ ConfigMap□ □□□□□ □□□ □□□ □□ □□□?

Answer:

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□□□(□□□):

1. ConfigMap □□□: □□□ □□ □□□ ConfigMap□ □□□□□.

```
apiVersion: v1
kind: ConfigMap
metadata:
  name: app-config
data:
  API_KEY: "your_api_key"
  DB_HOST: "db.example.com"
  DB_PORT: "5432"
```

2. □□ □□□□: □□ YAML □□□ □□□□ □□□ □□□□□. - 'volumeMount'□ □□□□
ConfigMap□ □□□□□ □□□□□□□. - 'app-config' ConfigMap□ □□□□ 'configMap' □□□□

□□□□ 'volume'□ □□□□□. - 'imagePullPolicy: Always'□ □□□□ □□□ □□ □□ □□□□
 □ □□□□ □□□□□ □□□.

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: web-app
spec:
  replicas: 3
  selector:
    matchLabels:
      app: web-app
  template:
    metadata:
      labels:
        app: web-app
    spec:
      containers:
        - name: web-app
          image: your-image-name:latest
          imagePullPolicy: Always
          envFrom:
            - configMapRef:
                name: app-config
          volumeMounts:
            - name: app-config-volume
              mountPath: "/etc/config"
      volumes:
        - name: app-config-volume
          configMap:
            name: app-config
```

3. □□ □□ □□: 'kubectl apply -f deployment-yamp'□ □□□□ □□□ □□□□□□□□. 4.
 ConfigMap □□□□: □□□ □□□□□□□ □ □□□ 'kubectl apply -f configmap-yamr'□ □□□
 □ SAP-config□ ConfigMap□ □□□□□. 5. □□ □□ □□: 'web-app' □□□ □□ □□□ □□
 □□□. □□□ □□□□□ □□□□□ □□□□□ ConfigMap□□ □ □□ □□□ □□□□ □□□.
 'imagePullPolicy: Always'□ □□□□ □□□ □□ □□ □□□□ □□□□ □□□□□. □□□ □
 □ □□□ □□□□□ □□ □□ □□□ □□□□□. □□ 'volumeMount' □ 'volumedefinitions'□
 SAP-config□ ConfigMap□ □□□□□ 'letc/config' □□□□□ □□□□□ □□□□ □□□ □□
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 □□ □□□□□ □□□□□ ConfigMap□□ □ □□□ □□□□□.

NEW QUESTION: 20

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Set configuration context:



```
[student@node-1] ~$ kubectl config  
use-context k8s
```

□

□□ □□□□□ □□□□ running.nginx□ □□ □□□ □□□ □□□□.

* kdpd00201 □□□□□□□□ □□□ □□□□□. □□□□□□□ □□ □□□□ □□□□.

* □□ □□□□□□ □□□ □□□□ 4□□ □□□□□ □□□□□.

* lfcncf/nginx:1.13.7 □□□□ □□□□ □□□ □□□□□.

* NGINX__PORT=8080 □□ □□□ □□□□ □ □□□□□ □□ □□ □□□ □□□□□.

Answer:

□□□:

Readme

Web Terminal

THE **LINUX** FOUNDATION

```
student@node-1:~$ kubectl create deployment api --image=lfcncf/nginx:1.13.7-alpine --replicas=4  
-n kdpd00201 --dry-run=client -o yaml > nginx_deployment.yml  
student@node-1:~$ vim nginx_deployment.yml
```

```
apiVersion: apps/v1
kind: Deployment
metadata:
  creationTimestamp: null
  labels:
    app: api
  name: api
  namespace: kdpd00201
spec:
  replicas: 4
  selector:
    matchLabels:
      app: api
  strategy: {}
  template:
    metadata:
      creationTimestamp: null
      labels:
        app: api
    spec:
      containers:
      - image: lfccncf/nginx:1.13.7-alpine
        name: nginx
        resources: {}
status: {}
```

~
"nginx_deployment.yml" 25L, 421C

4,1

All

```
apiVersion: apps/v1
kind: Deployment
metadata:
  labels:
    app: api
  name: api
  namespace: kdpd00201
spec:
  replicas: 4
  selector:
    matchLabels:
      app: api
  template:
    metadata:
      labels:
        app: api
    spec:
      containers:
      - image: lfccncf/nginx:1.13.7-alpine
        name: nginx
        ports:
        - containerPort: 8080
      env:
      - name: NGINX_PORT
        value: "8080"
```

~

23,8

All

```
Readme Web Terminal THE LINUX FOUNDATION

student@node-1:~$ kubectl create deployment api --image=lfcncf/nginx:1.13.7-alpine --replicas=4
-n kdpd00201 --dry-run=client -o yaml > nginx_deployment.yaml
student@node-1:~$ vim nginx_deployment.yaml
student@node-1:~$ kubectl create nginx_deployment.yaml
Error: must specify one of -f and -k

error: unknown command "nginx_deployment.yaml"
See 'kubectl create -h' for help and examples
student@node-1:~$ kubectl create -f nginx_deployment.yaml
error: error validating "nginx_deployment.yaml": error validating data: ValidationError(Deployment.spec.template.spec): unknown field "env" in io.k8s.api.core.v1.PodSpec; if you choose to ignore these errors, turn validation off with --validate=false
student@node-1:~$ vim nginx_deployment.yaml
student@node-1:~$ kubectl create -f nginx_deployment.yaml
deployment.apps/api created
student@node-1:~$ kubectl get pods on kdpd00201
NAME                                READY   STATUS    RESTARTS   AGE
api-745677f7dc-7hnmv               1/1     Running   0           13s
api-745677f7dc-9q5vp               1/1     Running   0           13s
api-745677f7dc-fd4gk               1/1     Running   0           13s
api-745677f7dc-mbnpc               1/1     Running   0           13s
student@node-1:~$
```

NEW QUESTION: 21

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Answer:

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1. □□□ □□□ □□:

- □□□ □□□□ □□□□□ □ YAML □□(□: 'resource-quota.yaml')□ □□□□.
- □□□ □□□□ □□□ □□□ □□□□□□□ □□□□□.
- □□□□ □□ □□□ □□□ □□□□□. □□ □□ CPU, □□□, Pod, □□□ □□ □□ □□□
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□□□(□□□):

1. EmptyDir □□□□ □□□ □□□□.

- □□ YAML□□ 'EmptyDirs □□'□ □□□□□.

- □□□□ □□□ □□ □□□ □□□ □□□□□.

- □:

apiVersion: apps/v1

kind: Deployment

metadata:

name: my-app

spec:

replicas: 1

selector:

matchLabels:

app: my-app

template:

metadata:

labels:

app: my-app

spec:

containers:

- name: my-app-container

image: my-app-image:latest

volumeMounts:

- name: my-data

mountPath: /data

volumes:

- name: my-data

emptyDir: {}



2. □□ □□□: - 'kubectl apply -f my-app-deployment-yaml'□ □□□□ □□ YAML□ □□□□

□. 3. □□ □□□□ - 'kubectl get deployments my-app'□ □□□□ □□ □□□ □□□□□. -

Pod□ □□ □□□ EmptyDir □□□ □□□□ □□□ □□□□□. 4. □□ □□□ □□ □□□: -

□□□□ □□ 'Aldata' □□□□□ □□□□ □□□. - Pod□ □□□□□. - □□□ □□□□ □

Pod□ □□□□. - 'data' □□□□□ □□□ □□□□ □□□ □□□□□ Pod□ □□□□ □□□

□□ □ Pod□ □ □□ □□□□ □□□□.

NEW QUESTION: 23

Set configuration context:

```
[student@node-1]# kubectl config  
use-context k8s
```

□□

□□□ □□□ □□□ □□□□, □□ □□□ □□ □□ □□□ □□□ □□□□ □□□.

□

□□□ □□□ □□□.

* □□□ YAMLSpec □□ /opt/KDOB00201/counter.yaml□ □□□□ □□□□□ □□□ □□□□
□□□□□.

* □□ □□ Pod□□ □□ □□ □□□ □□ □□□□□□ □□□ □□□□ □□□ □□□□□.

□□ □□□ /opt/KDOB00201/log_Output.txt

Answer:

□□□ □□□□ □□□□□.

□□

□□□:

```
pod/counter created
student@node-1:~$ kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
counter       1/1     Running   0           10s
liveness-http 1/1     Running   0           6h45m
nginx-101     1/1     Running   0           6h46m
nginx-configmap 1/1     Running   0           107s
nginx-secret  1/1     Running   0           7m21s
poller        1/1     Running   0           6h46m
student@node-1:~$ kubectl logs counter
1: 2b305101817ac25ca60ac46510fb6d11
2: 3648cf2eae95ab680dba8f195f891af4
3: 65c8bbd4dbf70bf81f2a0984a3a44ede
4: 40d3a9c8e46f5533bb4828fbe5c8d038
5: 390442d2530a90c3602901e3fe999ac8
6: b71d95187417e139effb33af77681040
7: 66a8e55a6491e756d2d0549ad6ab90a7
8: ff2b3d583b64125d2f9129c443bb87ff
9: b6c6a12b6e77944ed8baaaf6c242dae4
10: bfcc9a894a0604fc4b814b37d0a200a4
student@node-1:~$ kubectl logs counter > /opt/KDOB00201/log_output.txt
student@node-1:~$ 
student@node-1:~$ kubectl logs counter > /opt/KDOB00201/log_output.txt
student@node-1:~$ kubectl logs counter > /opt/KDOB00201/log_output.txt
student@node-1:~$ cat /opt/KDOB00201/log_output.txt
```

```
Readme Web Terminal THE LINUX FOUNDATION
student@node-1:~$ kubectl logs counter > /opt/KDOB00201/log_output.txt
student@node-1:~$ cat /opt/KDOB00201/log_output.txt
1: 2b305101817ae25ca60ae46510fb6d11
2: 3648cf2eae95ab680dba8f195f891af4
3: 65c8bbd4dbf70bf81f2a0984a3a44ede
4: 40d3a9c8e46f5533bb4828f8e5c8d038
5: 390442d2530a90c3602901e3fe999ac8
6: b71d95187417e139efb33af77681040
7: 66a8e55a6491e756d2d0549ad6ab90a7
8: ff2b3d583b64125d2f9129c443bb37ff
9: b6c6a12b6e77944ed8baaaf6c242dae4
10: bfcc9a894a0604fc4b814b37d0a200a4
11: 5493cd16a1790a5fb9512b0c9d4c5dd1
12: 03f169e93e6143438e6dfe4eccc9ed
13: 764b37fe611373c42d0b47154041f6eb
14: 1a56fbc1896b0ee6394136166281031e
15: ecc492eb17715de090c47341a98d98d3
16: 7974a6bec0fb41b6b8b8c71a31b674
17: 9ae01bef017481a2c9f91a5f9f72cd6
18: 23fb22ee34d4272e4e3e005f1774515f
19: ec7e1a5d314da9a0ad45d53be5a7acae
20: 0bccdd8ee02cd42029e8162cd1c1197c
21: d6851ea43546216b95bcb81ced997102
22: 7ed9a38ea8bf0d86206569481442af44
23: 29b8416ddc63dbfcb987ab3c8198e9fe
24: 1f2062001df51a108ab25010f506716f
student@node-1:~$
```

NEW QUESTION: 24

_____ is a Kubernetes resource that is used to manage the lifecycle of a container. It is a higher-level abstraction of a Pod, and it allows you to declaratively manage a set of Pods. StatefulSet is used to manage stateful applications, which are applications that require persistent storage and a unique identity for each Pod in the set. StatefulSet ensures that each Pod in the set has a unique identity and that the Pods are created in a specific order. StatefulSet also ensures that the Pods are deleted in a specific order. StatefulSet is used to manage stateful applications, which are applications that require persistent storage and a unique identity for each Pod in the set.

Answer:

_____ is a Kubernetes resource that is used to manage the lifecycle of a container.

_____:

_____ (_____):

1. _____:

- _____ is a Kubernetes resource that is used to manage the lifecycle of a container.

- StatefulSet is a Kubernetes resource that is used to manage the lifecycle of a container. StatefulSet ensures that each Pod in the set has a unique identity and that the Pods are created in a specific order. StatefulSet also ensures that the Pods are deleted in a specific order. StatefulSet is used to manage stateful applications, which are applications that require persistent storage and a unique identity for each Pod in the set.

2. _____


```
File Edit View Terminal Tabs Help
# reopened with the relevant failures.
#
apiVersion: apps/v1
kind: Deployment
metadata:
  annotations:
    deployment.kubernetes.io/revision: "1"
  creationTimestamp: "2022-09-24T04:27:03Z"
  generation: 1
  labels:
    app: nginx
    name: ckad00017-deployment
    namespace: ckad00017
    resourceVersion: "3349"
    uid: 1cd67613-fade-46e9-b741-94298b9c6e7c
spec:
  progressDeadlineSeconds: 600
  replicas: 2
  revisionHistoryLimit: 10
  selector:
    matchLabels:
      app: nginx
  strategy:
    rollingUpdate:
      maxSurge: 25%
      maxUnavailable: 25%
    type: RollingUpdate
  template:
    metadata:
      creationTimestamp: null
      labels:
-- INSERT --
```

33,14

5%

```
File Edit View Terminal Tabs Help
name: ckad00017-deployment
namespace: ckad00017
resourceVersion: "3349"
uid: 1cd67613-fade-46e9-b741-94298b9c6e7c
spec:
  progressDeadlineSeconds: 600
  replicas: 2
  revisionHistoryLimit: 10
  selector:
    matchLabels:
      app: nginx
  strategy:
    rollingUpdate:
      maxSurge: 25%
      maxUnavailable: 25%
    type: RollingUpdate
  template:
    metadata:
      creationTimestamp: null
      labels:
        app: nginx
        role: userUI
    spec:
      containers:
        - image: nginx:latest
          imagePullPolicy: Always
          name: nginx
          ports:
            - containerPort: 80
              protocol: TCP
          resources: {}
-- INSERT --
```

35,21

33%

```

File Edit View Terminal Tabs Help
backend-deployment-59d449b99d-h2zjc 0/1 Running 0 9s
backend-deployment-78976f74f5-b8c85 1/1 Running 0 6h40m
backend-deployment-78976f74f5-flfsj 1/1 Running 0 6h40m
candidate@node-1:~$ kubectl get deploy -n staging
NAME READY UP-TO-DATE AVAILABLE AGE
backend-deployment 3/3 3 3 6h40m
candidate@node-1:~$ kubectl get deploy -n staging
NAME READY UP-TO-DATE AVAILABLE AGE
backend-deployment 3/3 3 3 6h41m
candidate@node-1:~$ vim ~/spicy-pikachu/backend-deployment.yaml
candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ kubectl set serviceaccount deploy app-1 app -n frontend
deployment.apps/app-1 serviceaccount updated
candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ vim ~/prompt-escargot/buffalo-deployment.yaml
candidate@node-1:~$ vim ~/prompt-escargot/buffalo-deployment.yaml
candidate@node-1:~$ kubectl apply -f ~/prompt-escargot/buffalo-deployment.yaml
deployment.apps/buffalo-deployment configured
candidate@node-1:~$ kubectl get pods -n gorilla
NAME READY STATUS RESTARTS AGE
buffalo-deployment-776844df7f-r5fsb 1/1 Running 0 6h38m
buffalo-deployment-859898c6f5-zx5qj 0/1 ContainerCreating 0 8s
candidate@node-1:~$ kubectl get deploy -n gorilla
NAME READY UP-TO-DATE AVAILABLE AGE
buffalo-deployment 1/1 1 1 6h38m
candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ kubectl edit deploy ckad00017-deployment -n ckad00017
deployment.apps/ckad00017-deployment edited
candidate@node-1:~$

```

```

File Edit View Terminal Tabs Help
candidate@node-1:~$ kubectl get pods -n gorilla
NAME READY STATUS RESTARTS AGE
buffalo-deployment-776844df7f-r5fsb 1/1 Running 0 6h38m
buffalo-deployment-859898c6f5-zx5qj 0/1 ContainerCreating 0 8s
candidate@node-1:~$ kubectl get deploy -n gorilla
NAME READY UP-TO-DATE AVAILABLE AGE
buffalo-deployment 1/1 1 1 6h38m
candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ kubectl edit deploy ckad00017-deployment -n ckad00017
deployment.apps/ckad00017-deployment edited
candidate@node-1:~$ kubectl expose deploy ckad00017-deployment -n ckad0001
ckad00014 ckad00015 ckad00017
candidate@node-1:~$ kubectl expose deploy ckad00017-deployment -n ckad0001
ckad00014 ckad00015 ckad00017
candidate@node-1:~$ kubectl expose deploy ckad00017-deployment -n ckad0001
ckad00014 ckad00015 ckad00017
candidate@node-1:~$ kubectl expose deploy ckad00017-deployment -n ckad0001
ckad00014 ckad00015 ckad00017
candidate@node-1:~$ kubectl expose deploy ckad00017-deployment -n ckad0001
ckad00014 ckad00015 ckad00017
candidate@node-1:~$ kubectl expose deploy ckad00017-deployment -n ckad0001
ckad00014 ckad00015 ckad00017
candidate@node-1:~$ kubectl expose deploy ckad00017-deployment -n ckad0001
ckad00014 ckad00015 ckad00017
candidate@node-1:~$ kubectl expose deploy ckad00017-deployment -n ckad0001
ckad00014 ckad00015 ckad00017
candidate@node-1:~$ kubectl expose deploy ckad00017-deployment -n ckad00017 --name=cherry --port=8888 --type=NodePort
service/cherry exposed
candidate@node-1:~$

```

```

candidate@node-1:~$ kubectl get svc
NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE
kubernetes ClusterIP 10.96.0.1 <none> 443/TCP 77d
candidate@node-1:~$ kubectl get svc -n ckad00017
NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE
cherry NodePort 10.100.100.176 <none> 8888:30683/TCP 24s
candidate@node-1:~$ kubectl expose service deploy ckad00017-deployment -n ckad00017 --name=cherry --port=8888 --type=NodePort
Error from server (NotFound): services "deploy" not found
Error from server (NotFound): services "ckad00017-deployment" not found
candidate@node-1:~$ kubectl get svc -n ckad00017
NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE
cherry NodePort 10.100.100.176 <none> 8888:30683/TCP 46s
candidate@node-1:~$

```

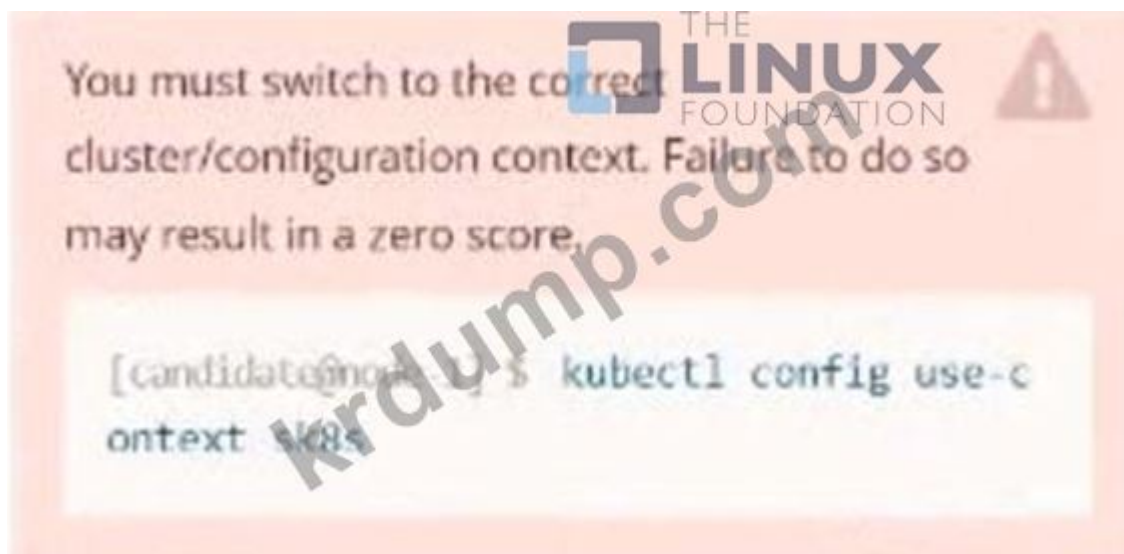
```

File Edit View Terminal Tabs Help
candidate@node-1:~$ kubectl expose service deploy ckad00017-deployment -n ckad00017 --name=cherry --port=8888 --type=NodePort
Error from server (NotFound): services "deploy" not found
Error from server (NotFound): services "ckad00017-deployment" not found
candidate@node-1:~$ kubectl get svc -n ckad00017
NAME      TYPE          CLUSTER-IP      EXTERNAL-IP      PORT(S)          AGE
cherry    NodePort      10.100.100.176   <none>           8888:30683/TCP   46s
candidate@node-1:~$ history
1 vi ~/spicy-pikachu/backend-deployment.yaml
2 kubectl config use-context sk8s
3 vim .vimrc
4 vim ~/spicy-pikachu/backend-deployment.yaml
5 kubectl apply -f ~/spicy-pikachu/backend-deployment.yaml
6 kubectl get pods -n staging
7 kubectl get deploy -n staging
8 vim ~/spicy-pikachu/backend-deployment.yaml
9 kubectl config use-context k8s
10 kubectl set serviceaccount deploy app-1 app -n frontend
11 kubectl config use-context k8s
12 vim ~/prompt-escargot/buffalo-deployment.yaml
13 kubectl apply -f ~/prompt-escargot/buffalo-deployment.yaml
14 kubectl get pods -n gorilla
15 kubectl get deploy -n gorilla
16 kubectl config use-context k8s
17 kubectl edit deploy ckad00017-deployment -n ckad00017
18 kubectl expose deploy ckad00017-deployment -n ckad00017 --name=cherry --port=8888 --type=NodePort
19 kubectl get svc
20 kubectl get svc -n ckad00017
21 kubectl expose service deploy ckad00017-deployment -n ckad00017 --name=cherry --port=8888 --type=NodePort
22 kubectl get svc -n ckad00017
23 history
candidate@node-1:~$

```

NEW QUESTION: 26

☐ ☐



☐:

☐ Pod ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ nginx resources ☐ ☐ ☐ Pod ☐ ☐ ☐ ☐.

nginx:stable ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐.

Pod ☐ ☐ ☐ ☐ ☐ 300m CPU ☐ 1G1 ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐.

Answer:

☐ ☐ ☐:

```

candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ kubectl run nginx-resources -n pod-resources --image=nginx:stable --dry-run=client -o yaml > hw.yaml
candidate@node-1:~$ vim hw.yaml

```

```
File Edit View Terminal Tabs Help
apiVersion: v1
kind: Pod
metadata:
  creationTimestamp: null
  labels:
    run: nginx-resources
  name: nginx-resources
  namespace: pod-resources
spec:
  containers:
  - image: nginx:stable
    name: nginx-resources
    resources:
      requests:
        cpu: 300m
        memory: "1Gi"

candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ kubectl run nginx-resources -n pod-resources --image=nginx:stable --dry-run=client -o yaml > hw.yaml
candidate@node-1:~$ vim hw.yaml
candidate@node-1:~$ kubectl create -f hw.yaml
pod/nginx-resources created
candidate@node-1:~$ kubectl get pods -n pod-resources
NAME          READY   STATUS    RESTARTS   AGE
nginx-resources 1/1     Running   0           13s
candidate@node-1:~$ kubectl describe pods -n pod-resources
Name:         nginx-resources
Namespace:    pod-resources
Node:         node-1/192.168.1.101
PodIP:        10.0.1.101
Labels:       run=nginx-resources
Annotations:  
Status:       Running
IP:           10.0.1.101
Controlled By: RunAsUser/nginx-resources
Containers:
  nginx-resources:
    Container ID:  docker://a1b2c3d4e5f6g7h8i9j0k1l2m3n4o5p6q7r8s9t0u1v2w3x4y5z6
    Image:         nginx:stable
    Image ID:      docker://a1b2c3d4e5f6g7h8i9j0k1l2m3n4o5p6q7r8s9t0u1v2w3x4y5z6
    Port:          80/TCP
    Host Port:     80/TCP
    Command:       ["nginx","-g","daemon off;"]
    State:          Running
      Started:      13s ago
      Waiting:       0s
      Reason:        ContainerStarting
    Conditions:
      Ready:         True
      Restarting:     False
    Resources:
      Requests:
        cpu:        300m
        memory:      1Gi
      Limits:
        cpu:         300m
        memory:       1Gi
    Environment:    
    Mounts:
      /var/run/secrets/kubernetes.io/serviceaccount from kube-api-access-dmx9j (ro)
    Conditions:
      Type             Status
      Initialized       True
      Ready             True
      ContainersReady   True
      PodScheduled      True
    Volumes:
      kube-api-access-dmx9j:
        Type:  Projected (a volume that contains injected data from multiple sources)
        TokenExpirationSeconds: 3607
        ConfigMapName: kube-root-ca.crt
        ConfigMapOptional: 
        DownwardAPI: true
    QoS Class:   Burstable
    Node-Selectors: 
    Tolerations: node.kubernetes.io/not-ready:NoExecute op=Exists for 300s
                  node.kubernetes.io/unreachable:NoExecute op=Exists for 300s
    Events:
      Type     Reason      Age   From          Message
      ----     -
      Normal   Scheduled   20s   default-scheduler   Successfully assigned pod-resources/nginx-resources to k8s-node-0
      Normal   Pulling     19s   kubelet          Pulling image "nginx:stable"
      Normal   Pulled      13s   kubelet          Successfully pulled image "nginx:stable" in 6.55664052s
      Normal   Created     13s   kubelet          Created container nginx-resources
      Normal   Started     12s   kubelet          Started container nginx-resources
candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ kubectl create deploy expose -n ckad00014 --image=fcncnf/nginx:1.13.7 --dry-run=client -o yaml>
```

NEW QUESTION: 27

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□□ "□□"□ □□(pod)□ □□ □□□□ □□ □□□□□ □□□. "autoscaling.k8s.io/v1 alpha1"□□
□ □□□ □□ □□□□□ □□□□□, □□ "□□" □□□□□ □□□ □□ □□□□□□. □ □□□□ □
□ □□□□ □□ □□□ □□□□□□□ "□□" □□□□ □□□□□ □□□□□ □□□□□ □□□□□
□□□□□.

Answer:

□□□ □□□ □□ □□□ □□□□□ □□□□□.

□□:

□□□(□□□):

1. □□□ □□ □□□ □□(CRD)□ □□□□.

- □□ YAML □□□□ □□□□ □□□ □□ □□□ "autoscaling.k8s.io/v1alpha1"□ □□□□□.

```
apiVersion: apiextensions.k8s.io/v1
kind: CustomResourceDefinition
metadata:
  name: autoscalings.autoscaling.k8s.io
spec:
  group: autoscaling.k8s.io
  versions:
    - name: v1alpha1
      served: true
      storage: true
  scope: Namespaced
  names:
    plural: autoscalings
    singular: autoscaling
```

- 'kubectl apply -f crd.yaml'□ □□□□□ CRD□ □□□□□. 2. □□□ □□ □□□□□ □□□□□. -
"□ □" □□□ □□ □□□ □□ □□□□□ □□□ □□ □□□ '□□ □□'□ □□□□□ □□□
□.

```
apiVersion: autoscaling.k8s.io/v1alpha1
kind: Autoscaling
metadata:
  name: web-app-autoscaler
spec:
  replicas: 3
```

- 'kubectl apply -t autoscaling-yaml'□ □□□□ □□□ □□ □□□□ □□□□□. 3. Kubernetes
□□□□□ □□□□□. - "□□ □□" □□□ □□ □□□□ □□ □□□ □□□□□ "□ □" □□□ □
□□□□□ Kubernetes □□□□□ □□□□□.

```

go
package main

import (
    "context"
    appsv1 "k8s.io/api/apps/v1"
    corev1 "k8s.io/api/core/v1"
    metav1 "k8s.io/apimachinery/pkg/apis/meta/v1"
    "k8s.io/apimachinery/pkg/runtime"
    "k8s.io/apimachinery/pkg/runtime/schema"
    "k8s.io/apimachinery/pkg/watch"
    "k8s.io/client-go/kubernetes"
    "k8s.io/client-go/rest"
    "k8s.io/client-go/tools/cache"
    "k8s.io/client-go/tools/record"
    "k8s.io/client-go/util/workqueue"
    "sigs.k8s.io/controller-runtime/pkg/client"
    "sigs.k8s.io/controller-runtime/pkg/controller"
    "sigs.k8s.io/controller-runtime/pkg/handler"
    "sigs.k8s.io/controller-runtime/pkg/manager"
    "sigs.k8s.io/controller-runtime/pkg/reconcile"
    "sigs.k8s.io/controller-runtime/pkg/source"
)

// Define the custom resource schema
var (
    scheme = runtime.NewScheme()
    gvk = schema.GroupVersionKind{
        Group: "autoscaling.k8s.io",
        Version: "v1alpha1",
        Kind: "Autoscaling",
    }
)

func init() {
    _ = corev1.AddToScheme(scheme)
    _ = appsv1.AddToScheme(scheme)
    _ = metav1.AddToGroupVersion(scheme, schema.GroupVersion{Group: "autoscaling.k8s.io", Version: "v1alpha1"})
}

// Define the controller logic
func reconcileAutoscaling(request reconcile.Request, c client.Client) (reconcile.Result, error) {
    // Fetch the Autoscaling resource
    autoscaling := &autoscalingv1alpha1.Autoscaling{}
    err := c.Get(context.Background(), request.NamespacedName, autoscaling)
    if err != nil {
        // Handle error
        return reconcile.Result{}, err
    }
    // Fetch the web-app Deployment
    deployment := &appsv1.Deployment{}
    err = c.Get(context.Background(), request.NamespacedName, deployment)
    if err != nil {
        // Handle error
        return reconcile.Result{}, err
    }

    // Update the Deployment's replicas
    deployment.Spec.Replicas = &autoscaling.Spec.Replicas
    err = c.Update(context.Background(), deployment)
    if err != nil {
        // Handle error
        return reconcile.Result{}, err
    }

    return reconcile.Result{}, nil
}

func main() {
    // Create a Kubernetes client
    cfg, err := rest.InClusterConfig()
    if err != nil {
        panic(err)
    }
    clientset, err := kubernetes.NewForConfig(cfg)
    if err != nil {
        panic(err)
    }

    // Create a manager
    mgr, err := manager.New(cfg, manager.Options{Scheme: scheme})
    if err != nil {
        panic(err)
    }

```



```
* adapter-zen --image=lfcncf/fluentsd:v0.12 --dry-run=c
lient -o yaml > deployment_xyz.yaml
* logger-dev --image=lfcncf/fluentsd:v0.12 --dry-run=c
lient -o yaml > deployment_xyz.yaml
```

```
while true; do
echo "i luv cncf" >> /
tmp/log/input.log;
sleep 10;
done
```

```
cat /tmp/log/input.log | jq -r '.data | select(.data == "i luv cncf")'
```

```
i luv cncf
i luv cncf
i luv cncf
```

```
* adapter-zen --image=lfcncf/fluentsd:v0.12 --dry-run=c
lient -o yaml > deployment_xyz.yaml
* logger-dev --image=lfcncf/fluentsd:v0.12 --dry-run=c
lient -o yaml > deployment_xyz.yaml
```

Answer:

code:

```
student@node-1:~$ kubectl create deployment deployment-xyz --image=lfcncf/busybox:1 --dry-run=c
lient -o yaml > deployment_xyz.yaml
student@node-1:~$ vim deployment_xyz.yaml
```

```
apiVersion: apps/v1
kind: Deployment
metadata:
  creationTimestamp: null
  labels:
    app: deployment-xyz
  name: deployment-xyz
spec:
  replicas: 1
  selector:
    matchLabels:
      app: deployment-xyz
  strategy: {}
  template:
    metadata:
      creationTimestamp: null
      labels:
        app: deployment-xyz
    spec:
      containers:
      - image: lfccncf/busybox:1
        name: busybox
        resources: {}
status: {}
~
~
"deployment_xyz.yml" 24L, 434C
```

3,1

All

```
kind: Deployment
metadata:
  labels:
    app: deployment-xyz
  name: deployment-xyz
spec:
  replicas: 1
  selector:
    matchLabels:
      app: deployment-xyz
  template:
    metadata:
      labels:
        app: deployment-xyz
    spec:
      volumes:
      - name: myvol1
        emptyDir: {}
      containers:
      - image: lfccncf/busybox:1
        name: logger-dev
        volumeMounts:
        - name: myvol1
          mountPath: /tmp/log
      - image: lfccncf/fluentd:v0.12
        name: adapter-zen
3 lines yanked
```

27,22

Bot

```
replicas: 1
selector:
  matchLabels:
    app: deployment-xyz
template:
  metadata:
    labels:
      app: deployment-xyz
  spec:
    volumes:
      - name: myvol1
        emptyDir: {}
    containers:
      - image: lfccncf/busybox:1
        name: logger-dev
        command: ["/bin/sh", "-c", "tail -f /tmp/log/input.log; sleep 10; done"]
        volumeMounts:
          - name: myvol1
            mountPath: /tmp/log
      - image: lfccncf/fluentd:v0.12
        name: adapter-zen
        command: ["/bin/sh", "-c", "tail -f /tmp/log/input.log >> /tmp/log/output.log"]
        volumeMounts:
          - name: myvol1
            mountPath: /tmp/log
```

29,83

Bot

```
metadata:
  labels:
    app: deployment-xyz
spec:
  volumes:
    - name: myvol1
      emptyDir: {}
    - name: myvol2
      configMap:
        name: logconf
  containers:
    - image: lfccncf/busybox:1
      name: logger-dev
      command: ["/bin/sh", "-c", "tail -f /tmp/log/input.log; sleep 10; done"]
      volumeMounts:
        - name: myvol1
          mountPath: /tmp/log
    - image: lfccncf/fluentd:v0.12
      name: adapter-zen
      command: ["/bin/sh", "-c", "tail -f /tmp/log/input.log >> /tmp/log/output.log"]
      volumeMounts:
        - name: myvol1
          mountPath: /tmp/log
        - name: myvol2
          mountPath: /fluentd/etc
```

37,33

Bot

```

student@node-1:~$ kubectl create -f deployment_xyz.yml
deployment.apps/deployment-xyz created
student@node-1:~$ kubectl get deployment
NAME                READY   UP-TO-DATE   AVAILABLE   AGE
deployment-xyz      0/1     1             0           5s
student@node-1:~$ kubectl get deployment
NAME                READY   UP-TO-DATE   AVAILABLE   AGE
deployment-xyz      0/1     1             0           9s
student@node-1:~$ kubectl get deployment
NAME                READY   UP-TO-DATE   AVAILABLE   AGE
deployment-xyz      1/1     1             1          12s
student@node-1:~$

```

NEW QUESTION: 29

Kubernetes is a portable, extensible system for automating the deployment, scaling, and management of containerized applications. It is designed to be able to manage large clusters of hosts, and to be able to manage the lifecycle of the applications running on those hosts. Kubernetes is built on top of Docker, and it uses Docker containers to run applications. Kubernetes is a system for automating the deployment, scaling, and management of containerized applications. It is designed to be able to manage large clusters of hosts, and to be able to manage the lifecycle of the applications running on those hosts. Kubernetes is built on top of Docker, and it uses Docker containers to run applications.

Answer:

Kubernetes is a portable, extensible system for automating the deployment, scaling, and management of containerized applications.

It is:

1. Kubernetes (K8s):

1. Kubernetes is a portable, extensible system for automating the deployment, scaling, and management of containerized applications. It is designed to be able to manage large clusters of hosts, and to be able to manage the lifecycle of the applications running on those hosts. Kubernetes is built on top of Docker, and it uses Docker containers to run applications.

```
# frontend-service.yaml
apiVersion: v1
kind: Service
metadata:
  name: frontend-service
spec:
  selector:
    app: frontend
  ports:
    - protocol: TCP
      port: 80
      targetPort: 8080
```



```
---
# backend-service.yaml
apiVersion: v1
kind: Service
metadata:
  name: backend-service
spec:
  selector:
    app: backend
  ports:
    - protocol: TCP
      port: 80
      targetPort: 8080
```

```
---
# database-service.yaml
apiVersion: v1
kind: Service
metadata:
  name: database-service
spec:
  selector:
    app: database
  ports:
    - protocol: TCP
      port: 5432
      targetPort: 5432
```

2. □□ □□ □□: □ □□ □□ □□□ □□□□□ □□ □□ □ □□ □□ □□□□ □□□□□.
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```
# frontend-deployment.yaml
apiVersion: apps/v1
kind: Deployment
metadata:
  name: frontend-deployment
spec:
  replicas: 2
```

```

selector:
  matchLabels:
    app: frontend
template:
  metadata:
    labels:
      app: frontend
  spec:
    containers:
      - name: frontend
        image: frontend:latest
        ports:
          - containerPort: 8080
        livenessProbe:
          tcpSocket:
            port: 8080
          initialDelaySeconds: 15
          periodSeconds: 20
          timeoutSeconds: 5
          failureThreshold: 3
        readinessProbe:
          tcpSocket:
            port: 8080
          initialDelaySeconds: 5
          periodSeconds: 10
          timeoutSeconds: 2
          failureThreshold: 3
---
# backend-deployment.yaml
apiVersion: apps/v1
kind: Deployment
metadata:
  name: backend-deployment
spec:
  replicas: 2
  selector:
    matchLabels:
      app: backend
  template:
    metadata:
      labels:
        app: backend
    spec:
      containers:
        - name: backend
          image: backend:latest
          ports:
            - containerPort: 8080
          livenessProbe:
            tcpSocket:
              port: 8080
            initialDelaySeconds: 15
            periodSeconds: 20
            timeoutSeconds: 5
            failureThreshold: 3

```

```

    readinessProbe:
      tcpSocket:
        port: 8080
      initialDelaySeconds: 5
      periodSeconds: 10
      timeoutSeconds: 2
      failureThreshold: 3
---
# database-deployment.yaml
apiVersion: apps/v1
kind: Deployment
metadata:
  name: database-deployment
spec:
  replicas: 1
  selector:
    matchLabels:
      app: database
  template:
    metadata:
      labels:
        app: database
    spec:
      containers:
      - name: database
        image: database:latest
        ports:
        - containerPort: 5432
        livenessProbe:
          tcpSocket:
            port: 5432
          initialDelaySeconds: 15
          periodSeconds: 20
          timeoutSeconds: 5
          failureThreshold: 3
        readinessProbe:
          tcpSocket:
            port: 5432
          initialDelaySeconds: 5
          periodSeconds: 10
          timeoutSeconds: 2
          failureThreshold: 3

```



3. □□□□ □□ □□: □□ □ □□□ □□□□ □□□□ □□□ □□□□□. □ □□□ □□ □
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Kustomize□ □□□□ □□ □□□ □□□□ □□ □□ □□ □□ □□ □□ □□□□. □□: □□□ □□ □□□ □□□□ □□□□□□ □□□ □□ □□□□ □□□. □□ □□□ □□ □□□ □□ □□□□ □□ □□, □□, □□ □□ □ □□ □□□□ □□□□ □ □□ □□□□.

NEW QUESTION: 30

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Answer:

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- □□□ □□□□: □□□ □□ □□□□ □□□□ □□□ □□ 'hostNetwork' □□□ □□□□ □ □□□□. □ □□□ □□□□□ □□□ □□□□ □□□ □□ □□□□ □□□□□, □□ □□ □ □□□□ □□□□.

- HostPath □□: □□□ □□□ □□□□ □□□□□ □□□□□ □□ □□□□ □□ 'hostPath' □□□ □□□□ □□□□□ □□□□□□.

- SecurityContext: □□□□□ 'securityContext' □□□ □□□□□. 'capabilities'□ □□ □□□ □ □□□ □□ □□□ □□□□ □□ □□□ □□□ □□□ □□□ □ □□□□.

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3. □□ □□□ □□□□ PSP □□:

- □□□ □□ □□ □□□ □□□□ PSP□ □□□□. □ PSP□ □□□ □□□□ □□□.

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- □□□ □□□□ □□□ □□, SELinux, AppArmor □□□ □□ □□ □□ □□ □□.

- □□□ □□□□ □□□□□□□□ PSP□ □□□□□.

4. □□ □□□□: 2□□□□ □□□ □□ □□□□ □□□□□ □□ □□□ □□□□□.

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- □□□ □□ 'hostNetwork', 'hostPatW □□ □□ 'securityContext' □□□ □□□□□.

- □□ □□□ □□□ □□□□□ □□□ □□□□ □□□□□ □□□□□.

5. □□□ □ □□: □□□ □□□ □□□□ □□□□□, □□□ □□□ □□ □□□□ □□ □□ □□□ □□□□□ □□□□□. □□, PSP□ □□□ □□ □□□ □□□□ □□□ □□□□□.

□:

□□ □□(□□ □□□□ □□):

```

apiVersion: apps/v1
kind: Deployment
metadata:
  name: my-deployment
spec:
  replicas: 3
  selector:
    matchLabels:
      app: my-app
  template:
    metadata:
      labels:
        app: my-app
    spec:
      containers:
        - name: my-container
          image: my-image:latest
          securityContext:
            privileged: true

```

□□□ □□(□□□ □□□□ □□):

```

apiVersion: apps/v1
kind: Deployment
metadata:
  name: my-deployment
spec:
  replicas: 3
  selector:
    matchLabels:
      app: my-app
  template:
    metadata:
      labels:
        app: my-app
    spec:
      containers:
        - name: my-container
          image: my-image:latest
          securityContext:
            privileged: false
          hostNetwork: true

```

□□ □□□ □□ PSP:

```

apiVersion: policy/v1beta1
kind: PodSecurityPolicy
metadata:
  name: my-psp
spec:
  privileged: false
  hostNetwork: true
  hostPID: false
  hostIPC: false
  seLinux:
    rule: RunAsAny
  runAsUser:
    rule: RunAsAny
  supplementalGroups:
    rule: RunAsAny
  fsGroup:
    rule: RunAsAny
  readOnlyRootFilesystem: false
  volumes:
    - hostPath: {}

```



You can create a PodSecurityPolicy (PSP) to restrict the actions that containers can perform on the host. The PSP is a Kubernetes resource that defines the security constraints for pods. You can create a PSP and then bind it to a service account to restrict the actions that containers can perform on the host.

NEW QUESTION: 31

You are a Kubernetes administrator.



You have a pod named 'nginx' in the 'default' namespace.

The pod is configured with the following resources:

- * pod-resources: 200m CPU, 1Gi memory
- * nginx-resources: 100m CPU, 512Mi memory
- * Pod nginx: 100m CPU, 512Mi memory
- * pod-resources: 200m CPU, 1Gi memory

Answer:

□□□:

The screenshot shows a web terminal interface with a dark background and a blue header. The header contains a 'Readme' button, a 'Web Terminal' button, and the 'THE LINUX FOUNDATION' logo. The terminal displays the following commands and output:

```
student@node-1:~$ kubectl run nginx-resources -n pod-resources --image=nginx --dry-run=client -o
yaml > nginx_resources.yml
student@node-1:~$ vim nginx
```

The second part of the screenshot shows the content of the `nginx_resources.yml` file being edited in vim. The content is a Kubernetes Pod manifest:

```
apiVersion: v1
kind: Pod
metadata:
  creationTimestamp: null
  labels:
    run: nginx-resources
  name: nginx-resources
  namespace: pod-resources
spec:
  containers:
  - image: nginx
    name: nginx-resources
    resources: {}
    dnsPolicy: ClusterFirst
    restartPolicy: Always
status: {}
```

The bottom of the terminal shows the status bar: `"nginx_resources.yml" 16L, 289C` on the left, `1,1` in the center, and `All` on the right.

ReadmeWeb Terminal

THE LINUX FOUNDATION

```
apiVersion: v1
kind: Pod
metadata:
  labels:
    run: nginx-resources
    name: nginx-resources
    namespace: pod-resources
spec:
  containers:
  - image: nginx
    name: nginx-resources
    resources:
      requests:
        cpu: 200m
        memory: "1Gi"
```

-- INSERT --15,22All

ReadmeWeb Terminal

THE LINUX FOUNDATION

```
student@node-1:~$ kubectl run nginx-resources -n pod-resources --image=nginx --dry-run=client -o
yaml > nginx_resources.yml
student@node-1:~$ vim nginx_resources.yml
student@node-1:~$ kubectl create -g nginx_resources.yml
Error: unknown shorthand flag: 'g' in -g
See 'kubectl create --help' for usage.
student@node-1:~$ kubectl create -f nginx_resources.yml
pod/nginx-resources created
student@node-1:~$ kubectl get pods -n pod-re
```

ReadmeWeb Terminal

THE LINUX FOUNDATION

```
student@node-1:~$ kubectl get pods -n pod-resources
NAME          READY   STATUS    RESTARTS   AGE
nginx-resources 1/1     Running   0           6s
student@node-1:~$
```

CKAD ☐☐ ☐☐☐☐ ☐☐☐☐☐☐ ☐☐ DumpTop ☐☐ ☐☐☐☐ ☐☐☐☐ CKAD ☐☐! DumpTop
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<https://www.dumptop.com/Linux-Foundation/CKAD-dump.html> (193 Q&As Dumps, **30%OFF**
Special Discount: **KrDump**)

NEW QUESTION: 32

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Kubemetes□ □□□□ □□□□ □□□□ □□ □□□ □□□□□ □□□□. □ □□□□□ □□
Kubernetes □□□ □□□ □□□ □ □□□□□?

Answer:

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□□□(□□□):

1. □□□ □□□ □□:

- '□□' □ '□□□'□ □□□□ □□□ □□□ □□□(□: RabbitMQ, Kafka □)□ □□□□□.

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□□□□ □□□□□ □□□□□.

3. □□□ □□ □□□ ConfigMap□ □□□□□.

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```
apiVersion: v1
kind: ConfigMap
metadata:
  name: message-broker-config
data:
  broker-connection: "amqp://user:password@broker.example.com:5672"
```

4. □□□□□ □□ □□: - □□□□ 'configMap'□ □□ □□□ □□□□ □□□ □□□□ □□□
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NEW QUESTION: 33

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□□□□. ConfigMaps□ □□□□ □□□ □□□ □□□□ □□□□□ □□□□□ □□□□. □□

YAML

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: my-app
spec:
  replicas: 3
  template:
    metadata:
      labels:
        app: my-app
    spec:
      containers:
      - name: my-app
        image: my-app:v1
        env:
        - name: DATABASE_HOST
          valueFrom:
            configMapKeyRef:
              name: my-app-config
              key: database_host
        - name: API_KEY
          valueFrom:
            configMapKeyRef:
              name: my-app-config
              key: api_key
```

my-app-config ConfigMap. - 'db.example.com' - 'api_key':

Answer:

1. ConfigMap

```
apiVersion: v1
kind: ConfigMap
metadata:
  name: my-app-config
data:
  database_host: db.example.com
  api_key: your_secret_api_key
```

2. ConfigMap: bash kubectl apply -f my-app-config.yaml 3. ConfigMap: bash kubectl get configmap my-app-config -o yaml 4. ConfigMap: bash kubectl apply -f deployment.yaml 5. Pod: bash kubectl get pods -l app=my-app -o wide 6. Pod: bash kubectl exec -it bash -c 'env' Pod ConfigMap: bash kubectl get configmap my-app-config -o yaml

NEW QUESTION: 34

Set configuration context:



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```
[student@node-1] $ kubectl config  
use-context k8s
```

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Answer:

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api □□: v1

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□□: liveness-exec

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□□□: k8s.gcr.io/busybox

□□:

- /bin/sh

```

- -
- touch /tmp/healthy; sleep 30; rm -rf /tmp/healthy; sleep 600
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kubectl □□ -f https://k8s.io/examples/pods/probe/exec-liveness.yaml
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kubectl describe pod liveness-exec
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kubectl describe pod liveness-exec
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SubobjectPath □□ □□ □□□□□ FirstSeen LastSeen Count□ □□□□□.
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```

```

37 37 1 {kubelet worker0} spec.containers{liveness} exec worker0 -- /bin/sh -c 'cat /tmp/healthy' || exit 1
36 36 1 {kubelet worker0} spec.containers{liveness} image k8s.gcr.io/busybox
36 36 1 {kubelet worker0} spec.containers{liveness} image k8s.gcr.io/busybox
36 36 1 {kubelet worker0} spec.containers{liveness} image docker id 86849c15382e
36 36 1 {kubelet worker0} spec.containers{liveness} image docker id 86849c15382e
2 2 1 {kubelet worker0} spec.containers{liveness} image Liveness probe
. cat: '/tmp/healthy' No such file or directory. 30 seconds
kubectl get pod liveness-exec
RESTARTS 0
liveness-exec 1/1 1 1m

```

NEW QUESTION: 35

A Kubernetes StatefulSet is configured with the following spec:


```

spec:
  serviceName: "my-service"
  replicas: 3
  selector:
    matchLabels:
      app: my-app
  template:
    metadata:
      labels:
        app: my-app
    spec:
      containers:
        - name: my-container
          image: my-image
          ports:
            - containerPort: 80
    
```

 The StatefulSet is deployed to a cluster with three nodes. The pods are created in the following order: pod0, pod1, pod2.

Answer:

pod0 is the first pod to be created.

pod1:

pod2 (pod0):

1. StatefulSet pod:

- StatefulSet pod is created. StatefulSet pod Pod ID is 1234567890. pod0 ID is 1234567890. pod1 ID is 1234567890. pod2 ID is 1234567890.

NEW QUESTION: 36



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* Pod□ □□□ □□□□ □□□.

* 3.2 □□□ □□ lfcncf/redis □□□□ □□□□□.

* □□ 6379 □□

Answer:

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□□

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```
Readme Web Terminal THE LINUX FOUNDATION
student@node-1:~$ kubectl run cache --image=lfcncf/redis:3.2 --port=6379 -n web
pod/cache created
student@node-1:~$ kubectl get pods -n web
NAME    READY   STATUS    RESTARTS   AGE
cache   0/1     ContainerCreating   0          6s
student@node-1:~$ kubectl get pods -n web
NAME    READY   STATUS    RESTARTS   AGE
cache   1/1     Running    0          9s
student@node-1:~$
```

NEW QUESTION: 37

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Answer:

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1). `apiVersion`:

- `apiVersion` specifies the version of the API to use. The version is specified in the `apiVersion` field of the manifest.

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: api-consuming-service-deployment
spec:
  replicas: 2
  selector:
    matchLabels:
      app: api-consuming-service
  template:
    metadata:
      labels:
        app: api-consuming-service
    spec:
      containers:
        - name: api-consuming-service
          image: your-image-repo:latest
          env:
            - name: API_ENDPOINT
              value: your-api-endpoint
            - name: API_KEY
              valueFrom:
                secretKeyRef:
                  name: api-credentials
                  key: key
```

2. API `secret` `key`: - `secret` is a Kubernetes resource that stores sensitive information. The `secret` is used to store the API key. The `secret` is created by the user and is used by the deployment to access the API.

```
apiVersion: v1
kind: Secret
metadata:
  name: api-credentials
stringData:
  key: your-api-key
```

3. `secret` `key` `value`: - API `key` is the value of the `key` field in the `secret`. The `key` is used to access the API. The `key` is created by the user and is used by the deployment to access the API.

4. `secret` `key` `value`: - `secret` is a Kubernetes resource that stores sensitive information. The `secret` is used to store the API key. The `secret` is created by the user and is used by the deployment to access the API.

5. `secret` `key` `value`: - API `key` is the value of the `key` field in the `secret`. The `key` is used to access the API. The `key` is created by the user and is used by the deployment to access the API.

6. `secret` `key` `value`: - `secret` is a Kubernetes resource that stores sensitive information. The `secret` is used to store the API key. The `secret` is created by the user and is used by the deployment to access the API.

7. API `key` `value`: - API `key` is the value of the `key` field in the `secret`. The `key` is used to access the API. The `key` is created by the user and is used by the deployment to access the API.

8. `secret` `key` `value`: - API `key` is the value of the `key` field in the `secret`. The `key` is used to access the API. The `key` is created by the user and is used by the deployment to access the API.

9. `secret` `key` `value`: - `secret` is a Kubernetes resource that stores sensitive information. The `secret` is used to store the API key. The `secret` is created by the user and is used by the deployment to access the API.

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```

❑:
❑❑ ckad00014 ❑❑❑❑❑❑❑ expose❑❑ ❑❑❑ ❑❑❑ ❑❑❑❑ Pod❑ ❑❑❑ 6❑❑ ❑❑❑
❑❑.
ifccncf/nginx: 1.13.7 ❑❑❑❑ ❑❑❑❑ ❑❑ ❑❑❑❑❑ ❑❑❑❑❑. ❑❑❑❑❑ ❑❑ 8001❑
NGINX_PORT❑❑ ❑❑ ❑❑❑ ❑❑❑❑ ❑❑ ❑❑ 8001❑ ❑❑❑❑❑❑.

```

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```
candidate@node-1:~$ kubectl config use-context k8s  
Switched to context "k8s".  
candidate@node-1:~$ kubectl create deploy expose -n ckad00014 --image lfccncf/nginx:1.13.7 --dry-run=client -o yaml > d  
ep.yaml  
candidate@node-1:~$  
candidate@node-1:~$  
candidate@node-1:~$  
candidate@node-1:~$  
candidate@node-1:~$  
candidate@node-1:~$  
candidate@node-1:~$  
candidate@node-1:~$  
candidate@node-1:~$  
candidate@node-1:~$
```

The Linux Foundation logo is located on the right side of the terminal window. It features a blue square icon with a white stylized 'L' shape inside, followed by the words 'THE LINUX FOUNDATION' in blue capital letters. A large, semi-transparent watermark 'ardump.com' is also visible across the center of the terminal output.

File Edit View Terminal Tabs Help

```
apiVersion: apps/v1
kind: Deployment
metadata:
  creationTimestamp: null
  labels:
    app: expose
  name: expose
  namespace: ckad00014
spec:
  replicas: 6
  selector:
    matchLabels:
      app: expose
  strategy: {}
  template:
    metadata:
      creationTimestamp: null
      labels:
        app: expose
    spec:
      containers:
        - image: lfccncf/nginx:1.13.7
          name: nginx
          ports:
            - containerPort: 8001
          env:
            - name: NGINX_PORT
              value: "8001"
```

File Edit View Terminal Tabs Help

```
candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ kubectl create deploy expose -n ckad00014 --image lfccncf/nginx:1.13.7 --dry-run=client -o yaml > d
ep.yaml
candidate@node-1:~$
candidate@node-1:~$
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candidate@node-1:~$
candidate@node-1:~$
candidate@node-1:~$
candidate@node-1:~$
candidate@node-1:~$
candidate@node-1:~$ vim dep.yaml
candidate@node-1:~$ kubectl create -f dep.yaml
deployment.apps/expose created
candidate@node-1:~$ kubectl get pods -n ckad00014
NAME                                READY    STATUS              RESTARTS   AGE
expose-85dd99d4d9-25675             0/1      ContainerCreating   0           6s
expose-85dd99d4d9-4fhcc             0/1      ContainerCreating   0           6s
expose-85dd99d4d9-fl7j              0/1      ContainerCreating   0           6s
expose-85dd99d4d9-tt6rm            0/1      ContainerCreating   0           6s
expose-85dd99d4d9-vjd8b            0/1      ContainerCreating   0           6s
expose-85dd99d4d9-vtzpq            0/1      ContainerCreating   0           6s
candidate@node-1:~$ kubectl get deploy -n ckad00014
NAME    READY    UP-TO-DATE    AVAILABLE    AGE
expose  6/6      6             6            15s
candidate@node-1:~$
```

NEW QUESTION: 40

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* □/□ □(key1/value4)□ □□□□ another-secret□□□ □□□ □□□□□.

* □□□□ □□□ nginx□ □□□□ nginx-secret□□□ □□□ nginx pod□ □□□□, pod □□
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Answer:

□□□:





```
apiVersion: v1
kind: Pod
metadata:
  creationTimestamp: null
  labels:
    run: nginx-secret
  name: nginx-secret
spec:
  containers:
  - image: nginx
    name: nginx-secret
    resources: {}
  dnsPolicy: ClusterFirst
  restartPolicy: Always
status: {}
```

"nginx_secret.yml" 15L, 253C

1,1

All

```
apiVersion: v1
kind: Pod
metadata:
  labels:
    run: nginx-secret
  name: nginx-secret
spec:
  containers:
  - image: nginx
    name: nginx-secret
    env:
    - name: COOL_VARIABLE
      valueFrom:
        secretKeyRef:
          name: some-secret
          key: key1
```

-- INSERT --



16,20

All

Readme
Web Terminal
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```

student@node-1:~$ kubectl get pods -n web
NAME      READY   STATUS    RESTARTS   AGE
cache     1/1     Running   0           9s
student@node-1:~$ kubectl create secret generic some-secret --from-literal=key1=value4
secret/some-secret created
student@node-1:~$ kubectl get secret
NAME                                TYPE                                DATA   AGE
default-token-4kvr5                 kubernetes.io/service-account-token 1       2d11h
some-secret                         Opaque                               1       5s
student@node-1:~$ kubectl run nginx-secret --image=nginx --dry-run=client -o yaml > nginx_secret.yaml
student@node-1:~$ vim nginx_secret.yaml
student@node-1:~$ kubectl create -f nginx_secret.yaml
pod/nginx-secret created
student@node-1:~$ kubectl get pods
NAME            READY   STATUS    RESTARTS   AGE
liveness-http   1/1     Running   0           6h38m
nginx-101       1/1     Running   0           6h39m
nginx-secret     0/1     ContainerCreating   0           4s
poller          1/1     Running   0           6h39m
student@node-1:~$ kubectl get pods
NAME            READY   STATUS    RESTARTS   AGE
liveness-http   1/1     Running   0           6h38m
nginx-101       1/1     Running   0           6h39m
nginx-secret     1/1     Running   0           8s
poller          1/1     Running   0           6h39m
student@node-1:~$

```

NEW QUESTION: 41

_____ _____ _____ _____, _____ _____ _____ _____
 _____ _____. _____ _____ _____ _____ _____ _____
 _____ _____ _____ _____ ServiceAccounts _____ _____. _____
 _____ _____ _____ _____ ServiceAccount _____ _____ _____,
 ServiceAccount _____ Role _____ YAML _____ _____.

Answer:

_____ _____ _____ _____ _____.

_____:

_____ (_____):

1. _____ _____:

- 'kubectl create secret generic my-secret -from' _____ _____ _____ _____
 _____.
- _____ 'username' _____ 'password' _____ _____ _____ 'my-secret' _____ _____
 _____.
- _____ _____ _____ _____ _____.

2. _____ _____

- 'kubectl create serviceaccount my-service-account' _____ ServiceAccount _____ _____.
- _____ 'my-service-account' _____ ServiceAccount _____ _____.

3. _____ _____:

- ServiceAccount _____ _____ _____ _____ _____ _____ _____ _____
 _____.

```
apiVersion: rbac.authorization.k8s.io/v1
kind: Role
metadata:
  name: my-role
  namespace: default
rules:
- apiGroups: ["v1"]
  resources: ["secrets"]
  verbs: ["get", "watch", "list"]
```

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: my-app
spec:
  replicas: 1
  selector:
    matchLabels:
      app: my-app
  template:
    metadata:
      labels:
        app: my-app
    spec:
      serviceAccountName: my-service-account
      containers:
      - name: my-app-container
        image: my-app-image
        envFrom:
        - secretRef:
            name: my-secret
```

☐ ☐☐☐☐☐☐ ☐ ☐☐☐☐☐ ☐☐☐ 3☐☐ ☐☐☐☐ 'web-apps'☐☐ ☐☐☐ ☐☐☐☐☐. ☐☐☐

□□□□ 'db-service'□□ □□□ □□□ □□□□□□ □□□□ □□□□□□. □ □□□□□□ □□□□ □□□□ □□ □□□□□□ □□□□ □□ □□□ □□□□□ 'initContainer' □□□ □□□ □□□□ □□□ □□□□ □□□. □ □□□□□□ □□□□□ □□□□□□□ □□□ □□ □□ □□□□□ □□□.

Answer:

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□□:

□□□(□□□):

1. 'initcontainer'□ □□□□□.

- 'web-app' □□□ 'spec.template.spec.initContainerS' □□□ □□□ □□□□ □□□ □□□□ □.

- □□□□ □□□ 'db-checker'□ □□□□□.

- □□□□□□ □□ □□□ □□□ □□□□□ □□□□□. 'busybox'□ □□ □□□ □□□□ □□ 'initContainer'□ 'curl'□ □□□□ □□ □□□ □□□ □ □□□□.

- 'initcontainer'□ □□ '□□'□ □□□□ □□ □□□ □□□ □□□ □□□□□□ □□□□ □□ □□□□□□ □□ □□□□ 'while' □□□ □□□□ □□□.

- 'db-service' □□□ □□□ □□□□ □□ □□□□□□ □□□ □ □□□□□.

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: web-app
spec:
  replicas: 3
  selector:
    matchLabels:
      app: web-app
  template:
    metadata:
      labels:
        app: web-app
    spec:
      initContainers:
        - name: db-checker
          image: busybox
          command:
            - sh
            - -c
            - 'while ! curl -s http://db-service:5432/health; do echo "Waiting for database..."; sleep 5; done;'
      containers:
        - name: web-app
          image: your-web-app-image:latest
          ports:
            - containerPort: 8080
      restartPolicy: Always
```

2. 'db-service' □□ □□□□ - 'db-servjce' □□□ □□□ □□□ health cneck □□□□□□ □□ □□ □□□ □□□□□. - □□ □□, □□□□□□ □□□ □□□□ 'http://db-service:5432/health'□ health □□□□□□ □□□ □ □□□□. - □□□□□□□ □□ □□□ □□ □□□ health □□□□□□ □□□□ □□ □□(□: 200)□ □□□□ □□□. - □□□□□□□ □□□ □ □□ □□ □□□□□□ □□ □□□ □□□□ □□□.

```

apiVersion: apps/v1
kind: Deployment
metadata:
  name: db-service
spec:
  replicas: 1
  selector:
    matchLabels:
      app: db-service
  template:
    metadata:
      labels:
        app: db-service
    spec:
      containers:
        - name: db
          image: your-db-image:latest
          ports:
            - containerPort: 5432
          # Add health endpoint
          livenessProbe:
            httpGet:
              path: /health
              port: 5432
            initialDelaySeconds: 15
            periodSeconds: 20

```

3. `kubectl apply -f db-service.yaml` - 'kubectl apply' command is used to apply the configuration defined in the 'db-service.yaml' file to the Kubernetes cluster. This command will create the 'db-service' deployment if it does not already exist, or update it if it does. The output of the command will show the status of the deployment and the pods created.

4. `kubectl get pods -l app=db-service` - This command is used to list the pods created by the 'db-service' deployment. The output will show the name of the pod, its IP address, and its status. The status should be 'Running'.

`initcontainer` is a container that is used to initialize the environment of the main container. It is defined in the 'spec' section of the pod definition. In this case, the 'initcontainer' is used to initialize the database environment.

`- 'db-service'` is the name of the deployment. It is used to select the deployment to be updated or created.

`'Running'` is the status of the pod. It indicates that the pod is running successfully.

`'db-service'` is the name of the deployment. It is used to select the deployment to be updated or created.

`'web-app'` is the name of the deployment. It is used to select the deployment to be updated or created.

`'db-checker'` is the name of the deployment. It is used to select the deployment to be updated or created.

NEW QUESTION: 43

The following YAML file defines a Kubernetes deployment for a web application. The deployment is named 'web-app' and it uses the 'nginx' image. The deployment is configured to run 3 replicas of the application. The deployment is also configured to use a 'livenessProbe' to monitor the health of the application. The 'livenessProbe' is configured to use the 'httpGet' method to check the health of the application. The 'livenessProbe' is configured to check the health of the application every 10 seconds. The 'livenessProbe' is configured to use the 'httpGet' method to check the health of the application. The 'livenessProbe' is configured to use the 'httpGet' method to check the health of the application.

Answer:

`kubectl create deployment web-app --image=nginx`

`kubectl:`

`kubectl(nginx):`

1. `kubectl create namespace ecom-team` - This command is used to create a new namespace named 'ecom-team'.
2. `kubectl create -f deployment.yaml` - This command is used to create the deployment defined in the 'deployment.yaml' file.

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```
apiVersion: v1
kind: ResourceQuota
metadata:
  name: ecom-team-quota
  namespace: ecom-team
spec:
  requests.cpu: "2"
  requests.memory: "2Gi"
  limits.cpu: "4"
  limits.memory: "4Gi"
```

3. □□ □□ □□ □□(RBAC) □□: 'kubectl create -f' □□□ □□□□ □ □□ □□ □□□□ □ □□□. □□ □□ □ □□ □□□□□□ □□□ □□□ □ □□ □□□ □□□ □ □□□□. □ □□□ □□□ □□ □□□ □□□□.

```
apiVersion: rbac.authorization.k8s.io/v1
kind: RoleBinding
metadata:
  name: ecom-team-binding
  namespace: ecom-team
roleRef:
  apiGroup: rbac.authorization.k8s.io
  kind: Role
  name: ecom-team-role
subjects:
- kind: User
  name: ecom-user
  apiGroup: rbac.authorization.k8s.io
```

4. □□□□□□ □□ □□□ □□: □□□□□ □ □□ □□□□□□ □□ □□□□□□ □ □□ □□□□ □□□□. □□ □□, □□ □□□ □□□□ '□□'□ □□□ □ □□□□.

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: ecom-app-deployment
  namespace: ecom-team
spec:
  replicas: 3
  selector:
    matchLabels:
      app: ecom-app
  template:
    metadata:
      labels:
        app: ecom-app
    spec:
      containers:
        - name: ecom-app
          image: example/ecom-app:latest
```

5. □□□□□□ □□ □□: 'kubectl get namespaces'□ □□□□ □□ □□□□□□□□ □□□□, 'kubectl describe namespace'□ □□□□ □□ □□□□□□□□ □□ □□□ □□□□□□. 6. □□ □□□□ □□□ □□: 'kubectl'□ □□ □□□ □□□ □□□ □□□□□(GIJI)□ □□□□ □ □□□□□ □□ □□□ □□□ □□□□ □□□ □ □□□□. 7. □□: □□ □ □□ □□ □□□ □□□□ □□□□ □□□ 'kubectl delete namespace'□ □□□□ □□□ □ □□□□.

NEW QUESTION: 44

'my-app-deployment'□□ □□□ □□□ □□□□□□ □□□□□ □□□ □ □□ □□□□ □□ □□. □ □□ □□□ Pod□ □□□□□□ □□ □□□□ □□□ □□□□ □□□. □□, □ □□□ □ □□□□ Docker □□□□□□ □□□ □□□ □□□□ □□□□□ □□□□ □□□□□ □□

□□□.

Answer:

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□□:

□□□(□□□):

1. □□ YAML□ □□□□□□□.

- '□□□'□ 2□ □□□□□□□.

- □□ □□□□ □□□□□ □□□□ □□ 'strategy-rollingUpdate' □□□□ 'maxUnavailable: 1'□
'maxSurge: 0'□ □□□□□.

- □□□ □□□□□□ □□ □□□□□ □□□□□ □□ 'strategy.types'□ 'Rollingupdates'□ □
□□□□.

- □□□ □□ □□□ □□ □□ □□□□ □ □□□□ □□□□□ 'spec-
template.spec.imagePullPolicy: Always'□ □□□□□.

- 'spec-template.spec.imagePullSecrets' □□□ □□□□ □□ Docker □□□□□□ □□ □□ □
□□ □□□□□. 'registry-secret'□ □□ □□□□ □□□□ □□□□.

kind: Deployment
metadata:

name: my-app-deployment

spec:

replicas: 2

selector:

matchLabels:

app: my-app

template:

metadata:

labels:

app: my-app

spec:

containers:

- name: my-app

image: your-private-registry.com/your-namespace/my-app:latest

imagePullPolicy: Always

imagePullSecrets:

- name: registry-secret

strategy:

type: RollingUpdate

rollingUpdate:

maxUnavailable: 1

2. □□ □□□ - 'kubectl apply -f my-app-deployment.yaml'□ □□□□ □□□□□ YAML □□□

□□□□□.3. □□ □□: - 'kubectl get deployments my-app-deployment'□ □□□□ □□ □□□

□□□□ □□□□ □□□□□ □□□ □□ □□□□□.4. □□ □□□□ □□□: - 'your-private-
registry.com/your-namespace/my-app:latest'□ □□ □□□ □□ Docker □□□□□□ □ □□□

□ □□□□□.5. □□ □□□□: - 'kubectl get pods -l app=my-apps'□ □□□□ □□ □□□□ □
□□□ □□ □□ □□□□□ □□□□□□□□.□ □□ □□□ □□□ □□□□ □□□□□ □□□

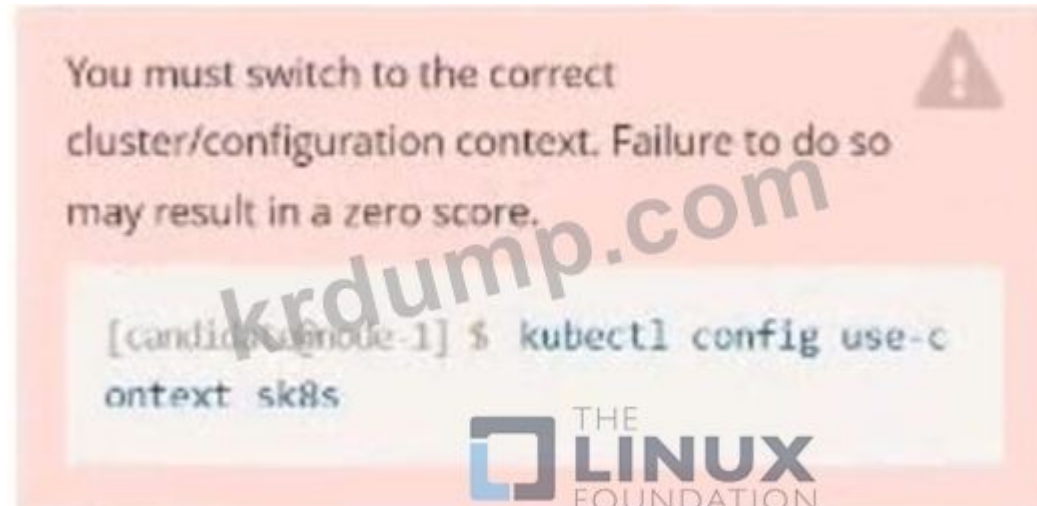
□ □□ □ □□□ □□□ □□□□ □□ □□□ □ □□□□.6. □□□□ □□ □□: - □□□ □□
□□ 'kubectl describe deployment my-app-deployment'□ □□□□ updatedReplicas' □□□

'replicas' □□□ □□□□□ □□□□ □□□□□ □□□□□ □□□□□.]



NEW QUESTION: 45

□□□ □□□□□.



□:

buffalo-deployment□□ □□□ □□ □ □□□ Gorilla □□□□□□□ □□□ □□□□□.

1) □□□ □□□□ □□ □□□□ □□□□□.

□□□□□□ "gorilla"□□ □□□ "system:serviceaccount:gorilla:default"□ □□□

"deployment" [...]□ □□□ □ □□□ □□□ □□□ □□□□.

2) Pod □□□ □□□ □□□□ □□ □□ buffalo-deployment□ □□□□□□□.

buffalo-deployment□ □□□□□□ -/prompt/escargot/buffalo-deployment.yaml□□ □□ □ □□ □□.

Answer:

□□□:

```
deployment.apps/backend-deployment configured
candidate@node-1:~$ kubectl get pods -n staging
NAME                                READY   STATUS    RESTARTS   AGE
backend-deployment-59d449b99d-cxct6 1/1     Running   0           20s
backend-deployment-59d449b99d-h2zjq 0/1     Running   0           9s
backend-deployment-78976f74f5-b8c85 1/1     Running   0           6h40m
backend-deployment-78976f74f5-flfsj 1/1     Running   0           6h40m
candidate@node-1:~$ kubectl get deploy -n staging
NAME                READY   UP-TO-DATE   AVAILABLE   AGE
backend-deployment 3/3     3             3           6h40m
candidate@node-1:~$ kubectl get deploy -n staging
NAME                READY   UP-TO-DATE   AVAILABLE   AGE
backend-deployment 3/3     3             3           6h41m
candidate@node-1:~$ vim ~/spicy-pikachu/backend-deployment.yaml
candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ kubectl set serviceaccount deploy app-1 app -n frontend
deployment.apps/app-1 serviceaccount updated
candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ vim -/prompt-escargot/buffalo-deployment.yaml
candidate@node-1:~$ vim -/prompt-escargot/buffalo-deployment.yaml
candidate@node-1:~$ kubectl apply -f -/prompt-escargot/buffalo-deployment.yaml
deployment.apps/buffalo-deployment configured
candidate@node-1:~$ kubectl get pods -n gorilla
NAME                                READY   STATUS             RESTARTS   AGE
buffalo-deployment-776844df7f-r5fsb 1/1     Running            0           6h38m
buffalo-deployment-859898c6f5-zx5gj 0/1     ContainerCreating   0           8s
candidate@node-1:~$ kubectl get deploy -n gorilla
NAME                READY   UP-TO-DATE   AVAILABLE   AGE
buffalo-deployment 1/1     1             1           6h36m
candidate@node-1:~$
```

```

candidate@node-1:~$ vi ~/spicy-pikachu/backend-deployment.yaml
candidate@node-1:~$ kubectl config use-context sk8s
Switched to context "sk8s".
candidate@node-1:~$ vim .vimrc
candidate@node-1:~$ vim ~/spicy-pikachu/backend-deployment.yaml
candidate@node-1:~$ kubectl apply -f ~/spicy-pikachu/backend-deployment.yaml
deployment.apps/backend-deployment configured
candidate@node-1:~$ kubectl get pods -n staging
NAME                                READY   STATUS    RESTARTS   AGE
backend-deployment-59d449b99d-cxct6 1/1     Running   0           20s
backend-deployment-59d449b99d-h2zjq 0/1     Running   0           9s
backend-deployment-78976f74f5-b8c85 1/1     Running   0           6h40m
backend-deployment-78976f74f5-flfsj 1/1     Running   0           6h40m
candidate@node-1:~$ kubectl get deploy -n staging
NAME                READY   UP-TO-DATE   AVAILABLE   AGE
backend-deployment  3/3     3             3           6h40m
candidate@node-1:~$ kubectl get deploy -n staging
NAME                READY   UP-TO-DATE   AVAILABLE   AGE
backend-deployment  3/3     3             3           6h41m
candidate@node-1:~$ vim ~/spicy-pikachu/backend-deployment.yaml
candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ kubectl set serviceaccount deploy app-1 app -n frontend
deployment.apps/app-1 serviceaccount updated
candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ vim ~/prompt-escargot/buffalo-deployment.yaml
candidate@node-1:~$ vim ~/prompt-escargot/buffalo-deployment.yaml
candidate@node-1:~$ kubectl apply -f ~/prompt-escargot/buffalo-deployment.yaml
deployment.apps/buffalo-deployment configured
candidate@node-1:~$ kubectl get pods -n go

```

```

deployment.apps/backend-deployment configured
candidate@node-1:~$ kubectl get pods -n staging
NAME                                READY   STATUS    RESTARTS   AGE
backend-deployment-59d449b99d-cxct6 1/1     Running   0           9s
backend-deployment-59d449b99d-h2zjq 0/1     Running   0           6h40m
backend-deployment-78976f74f5-b8c85 1/1     Running   0           6h40m
backend-deployment-78976f74f5-flfsj 1/1     Running   0           6h40m
candidate@node-1:~$ kubectl get deploy -n staging
NAME                READY   UP-TO-DATE   AVAILABLE   AGE
backend-deployment  3/3     3             3           6h40m
candidate@node-1:~$ kubectl get deploy -n staging
NAME                READY   UP-TO-DATE   AVAILABLE   AGE
backend-deployment  3/3     3             3           6h41m
candidate@node-1:~$ vim ~/spicy-pikachu/backend-deployment.yaml
candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ kubectl set serviceaccount deploy app-1 app -n frontend
deployment.apps/app-1 serviceaccount updated
candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ vim ~/prompt-escargot/buffalo-deployment.yaml
candidate@node-1:~$ vim ~/prompt-escargot/buffalo-deployment.yaml
candidate@node-1:~$ kubectl apply -f ~/prompt-escargot/buffalo-deployment.yaml
deployment.apps/buffalo-deployment configured
candidate@node-1:~$ kubectl get pods -n gorilla
NAME                                READY   STATUS    RESTARTS   AGE
buffalo-deployment-776844df7f-f5b 1/1     Running   0           6h38m
buffalo-deployment-859898c6f5-zx5gj 0/1     ContainerCreating 0           8s
candidate@node-1:~$ kubectl get deploy -n gorilla
NAME                READY   UP-TO-DATE   AVAILABLE   AGE
buffalo-deployment  1/1     1             1           6h38m
candidate@node-1:~$

```

```

File Edit View Terminal Tabs Help
NAME READY STATUS RESTARTS AGE
backend-deployment-59d449b99d-cxct6 1/1 Running 0 20s
backend-deployment-59d449b99d-h2zjq 0/1 Running 0 9s
backend-deployment-78976f74f5-b8c85 1/1 Running 0 6h40m
backend-deployment-78976f74f5-flfsj 1/1 Running 0 6h40m
candidate@node-1:~$ kubectl get deploy -n staging
NAME READY UP-TO-DATE AVAILABLE AGE
backend-deployment 3/3 3 3 6h40m
candidate@node-1:~$ kubectl get deploy -n staging
NAME READY UP-TO-DATE AVAILABLE AGE
backend-deployment 3/3 3 3 6h41m
candidate@node-1:~$ vim ~/spicy-pikachu/backend-deployment.yaml
candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ kubectl set serviceaccount deploy app-1 app -n frontend
deployment.apps/app-1 serviceaccount updated
candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ vim ~/prompt-escargot/buffalo-deployment.yaml
candidate@node-1:~$ vim ~/prompt-escargot/buffalo-deployment.yaml
candidate@node-1:~$ kubectl apply -f ~/prompt-escargot/buffalo-deployment.yaml
deployment.apps/buffalo-deployment configured
candidate@node-1:~$ kubectl get pods -n gorilla
NAME READY STATUS RESTARTS AGE
buffalo-deployment-776844df7f-r5fsb 1/1 Running 0 6h38m
buffalo-deployment-859898c6f5-zx5gj 0/1 ContainerCreating 0 8s
candidate@node-1:~$ kubectl get deploy -n gorilla
NAME READY UP-TO-DATE AVAILABLE AGE
buffalo-deployment 1/1 1 1 6h38m
candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ kubectl edit deploy ckad00017-deployment -n ckad00017

```

```

File Edit View Terminal Tabs Help

```

Please edit the object below. Lines beginning with a '#' will be ignored, and an empty file will abort the edit. If an error occurs while saving this file will be reopened with the relevant failures.

```

iVersion: apps/v1
nd: Deployment
tadata:
annotations:
  deployment.kubernetes.io/revision: "1"
creationTimestamp: "2022-09-24T04:27:03Z"
generation: 1
labels:
  app: nginx
name: ckad00017-deployment
namespace: ckad00017
resourceVersion: "3349"
uid: 1cd67613-fade-46e9-b741-94298b9c6e7c
ec:
progressDeadlineSeconds: 600
replicas: 1
revisionHistoryLimit: 10
selector:
  matchLabels:
    app: nginx
strategy:
  rollingUpdate:
    maxSurge: 25%
    maxUnavailable: 25%
  type: RollingUpdate
template:
  metadata:
    name: ckad00017-deployment
    namespace: ckad00017
    labels:
      app: nginx

```

```

resourceVersion: "3349"
uid: 1cd67613-fade-46e9-b741-94298b9c6c7c
spec:
  progressDeadlineSeconds: 600
  replicas: 2
  revisionHistoryLimit: 10
  selector:
    matchLabels:
      app: nginx
  strategy:
    rollingUpdate:
      maxSurge: 25%
      maxUnavailable: 25%
    type: RollingUpdate
  template:
    metadata:
      creationTimestamp: null
    labels:
      app: nginx
    spec:
      containers:
      - image: nginx:latest
        imagePullPolicy: Always
        name: nginx
        ports:
        - containerPort: 80
          protocol: TCP
        resources: {}
        terminationMessagePath: /dev/termination-log
        terminationMessagePolicy: File
      dnsPolicy: ClusterFirst

```

-- INSERT --



46,14

39%

```

backend-deployment-59d449b99d-h2zjq 0/1 Running 0 9s
backend-deployment-78976f74f5-b8c85 1/1 Running 0 6h40m
backend-deployment-78976f74f5-flfsj 1/1 Running 0 6h40m
candidate@node-1:~$ kubectl get deploy -n staging
NAME READY UP-TO-DATE AVAILABLE AGE
backend-deployment 3/3 3 3 6h40m
candidate@node-1:~$ kubectl get deploy -n staging
NAME READY UP-TO-DATE AVAILABLE AGE
backend-deployment 3/3 3 3 6h41m
candidate@node-1:~$ vim ~/spicy-pikachu/backend-deployment.yaml
candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ kubectl set serviceaccount deploy app-1 app-1 fronte
deployment.apps/app-1 serviceaccount updated
candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ vim ~/prompt-escargot/buffalo-deployment.yaml
candidate@node-1:~$ vim ~/prompt-escargot/buffalo-deployment.yaml
candidate@node-1:~$ kubectl apply -f ~/prompt-escargot/buffalo-deployment.yaml
deployment.apps/buffalo-deployment configured
candidate@node-1:~$ kubectl get pods -n buffalo
NAME READY STATUS RESTARTS AGE
buffalo-deployment-776844df7f-r5f3n 1/1 Running 0 6h38m
buffalo-deployment-859898c5-25gqj 0/1 ContainerCreating 0 8s
candidate@node-1:~$ kubectl get deploy -n gorilla
NAME READY UP-TO-DATE AVAILABLE AGE
buffalo-deployment 1/1 1 1 6h38m
candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ kubectl edit deploy ckad00017-deployment -n ckad00017
deployment.apps/ckad00017-deployment edited
candidate@node-1:~$

```



1. CRD □ □ □ □ □.

- 'database.crd.yaml' □ □ □ YAML □ □ □ □ □ "□ □ □ □ □ □" □ □ □ □ □ □ □ □.

```
apiVersion: apiextensions.k8s.io/v1
kind: CustomResourceDefinition
metadata:
  name: databases.example.com
spec:
  group: example.com
  versions:
    - name: v1
      served: true
      storage: true
      scope: Namespaced
  names:
    plural: databases
    singular: database
    kind: Database
    subresources:
      status: {}
  validation:
    openAPIV3Schema:
      properties:
        spec:
          properties:
            databaseName:
              type: string
            username:
              type: string
            password:
              type: string
            host:
              type: string
          required:
            - databaseName
            - username
            - password
            - host
          type: object
```

2. CRD: - 'kubectl "ply -f database.crd.ya'mr □ □ □ □ 'database.cre.yaml' □ □ □ □ □. 3. □ □ □ □ □ □ □ □ □ □ □ □ □ □. - 'yml □ □ 'd:tabaseyaml' □ □ □ □ □ □ □ □ □ □ □ □ □ □

```
apiVersion: example.com/v1
kind: Database
metadata:
  name: my-database
spec:
  databaseName: my-database
  username: my-user
  password: my-password
  host: my-database-service
```

4. □ □ □ □ □ □ □ □ □ □ □ □: - 'kubectl apply -f database.yamr' □ □ □ □ 'database.yaml' □ □ □ □ □. 5. □ □ □ □ □ □ - '□ □ □ □ □ □' □ □ □ □ □ □ □ □ Amy-app-deployment.yaml' □ □ □ □ □ □ □ □.



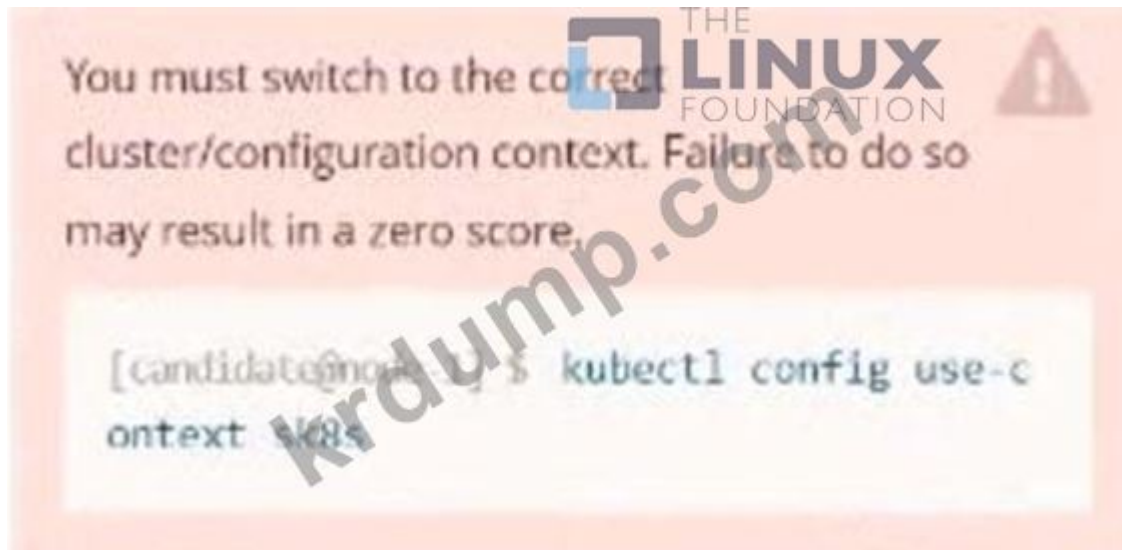
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CKAD         DumpTop     CKAD ! DumpTop
  **CKAD**        
                      .
                      .
<https://www.dumptop.com/Linux-Foundation/CKAD-dump.html> (193 Q&As Dumps, **30%OFF**)

Special Discount: **KrDump**)

NEW QUESTION: 47

□□



□:

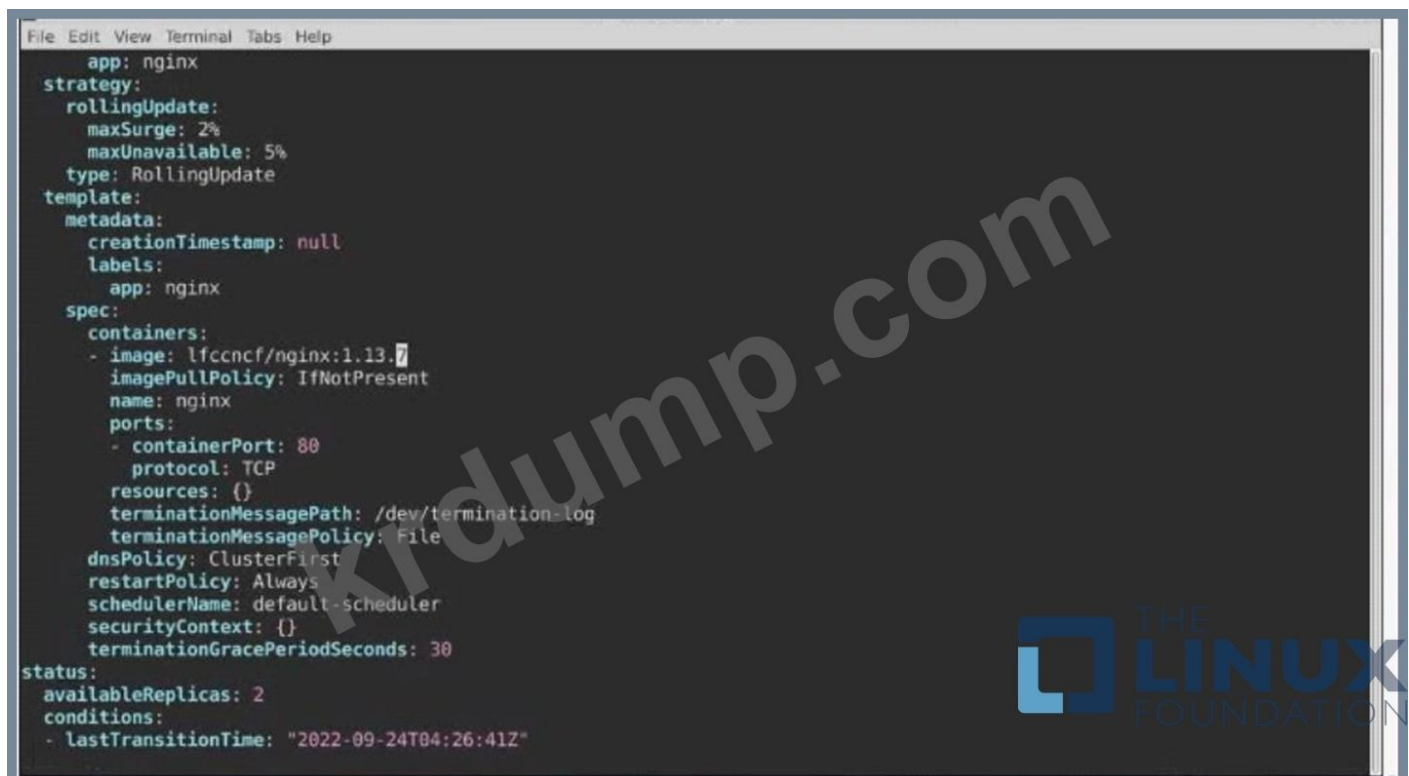
1- ckad00015 □□□□□□ □□□□ Deployment web1□ Propertunel □□ □□□ □□□□□□ maxSurge□ 2□, maxUnavailable□ 59□ □□□□□.

2- Ifcnf/nginx □□□□ □□□□ □□ □□ 1.13.7□ □□□□□□ web1 □□□ □□□□□□□□.

3- web1 □□□ □□ □□□□ □□□□□□.

Answer:

□□□:



```

File Edit View Terminal Tabs Help
Switched to context "k8s".
candidate@node-1:~$ kubectl create secret generic app-secret -n default --from-literal=key3=value1
secret/app-secret created
candidate@node-1:~$ kubectl get secrets
NAME          TYPE      DATA      AGE
app-secret    Opaque    1           4s
candidate@node-1:~$ kubectl run nginx-secret -n default --image=nginx:stable --dry-run=client -o yaml > sec.yaml
candidate@node-1:~$ vim sec.yaml
candidate@node-1:~$ kubectl create -f sec.yaml
pod/nginx-secret created
candidate@node-1:~$ kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
nginx-secret  1/1     Running   0           7s
candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ kubectl edit deploy web1 -n ckad00015
deployment.apps/web1 edited
candidate@node-1:~$ kubectl rollout status deploy web1 -n ckad00015
deployment "web1" successfully rolled out
candidate@node-1:~$ kubectl rollout undo deploy web1 -n ckad00015
deployment.apps/web1 rolled back
candidate@node-1:~$ kubectl rollout history deploy web1 -n ckad00015
deployment.apps/web1
REVISION  CHANGE-CAUSE
2         <none>
3         <none>
candidate@node-1:~$ kubectl get rs -n ckad00015
NAME                                DESIRED   CURRENT   READY   AGE
web1-56f98bcb79                     0         0         0       63s
web1-85775b6b79                     2         2         2       6h53m
candidate@node-1:~$

```

NEW QUESTION: 48

You are working on a Kubernetes cluster. You have a deployment named `web1` in the namespace `ckad00015`. The deployment is currently in the `RollingUpdate` state. You want to roll back the deployment to the previous version. Which command should you use to roll back the deployment?

Answer:

The correct command to roll back the deployment is:

`kubectl rollout undo`

`kubectl rollout undo deploy web1 -n ckad00015`

1. Init `init` command.

- `kubectl rollout undo` Pod `web1` `init` command.

- `kubectl rollout undo` `web1` `init` command.

- `kubectl rollout undo` `web1` `init` command.

- `kubectl rollout undo`

```

apiVersion: v1
kind: Pod
metadata:
  name: database-pod
spec:
  containers:
    - name: database
      image: postgres:latest
      ports:
        - containerPort: 5432
      env:
        - name: POSTGRES_USER
          value: "user"
        - name: POSTGRES_PASSWORD
          value: "password"
        - name: POSTGRES_DB
          value: "mydatabase"
      initContainers:
        - name: database-init
          image: busybox:1.31.1
          command: ["sh", "-c", "until pg_isready -h localhost -p 5432 -U user; do echo 'Waiting for database...'; sleep 2; done; psql -h localhost -U user -d mydatabase -c 'CREATE TABLE IF NOT EXISTS mytable (id SERIAL PRIMARY KEY, name TEXT);'"]

```

2. `kubectl rollout undo` - `kubectl rollout undo` `web1` `init` command. - `kubectl rollout undo` `web1` `init` command.

'dependson' `web1` `init` command. `web1` `init` command.

`kubectl rollout undo` `web1` `init` command. - `kubectl rollout undo`



```

apiVersion: apps/v1
kind: Deployment
metadata:
  name: my-app-deployment
spec:
  replicas: 2
  selector:
    matchLabels:
      app: my-app
  template:
    metadata:
      labels:
        app: my-app
    spec:
      containers:
        - name: my-app
          image: my-app:latest
          ports:
            - containerPort: 5000

```

2. 'kustomization.yaml' ☐ ☐ ☐ ☐ ☐.

```

resources:
- deployment.yaml
patchesStrategicMerge:
- patches/liveness-probe.yaml
- patches/readiness-probe.yaml

```

3. 'patches/liveness-probe.yaml' ☐ ☐ ☐ ☐ ☐.



```

spec:
  template:
    spec:
      containers:
        - name: my-app
          livenessProbe:
            tcpSocket:
              port: 5000
            initialDelaySeconds: 15
            periodSeconds: 20
            failureThreshold: 3

```

4. 'patches/readiness-probe.yaml' ☐ ☐ ☐ ☐ ☐.

```
spec:
  template:
    spec:
      containers:
      - name: my-app
        readinessProbe:
          tcpSocket:
            port: 5000
          initialDelaySeconds: 5
          periodSeconds: 10
          failureThreshold: 2
```

5. Kustomize `bash kustomize . | kubectl apply -t` - Liveness probe: `tcpSocket` `port: 5000` `initialDelaySeconds: 5` `periodSeconds: 10` `failureThreshold: 2`. TCP `port: 5000` `initialDelaySeconds: 5` `periodSeconds: 10` `failureThreshold: 2` (check) `initialDelaySeconds: 5` `periodSeconds: 10` `failureThreshold: 2`. 20 `initialDelaySeconds: 5` `periodSeconds: 10` `failureThreshold: 2`, 3 `initialDelaySeconds: 5` `periodSeconds: 10` `failureThreshold: 2` Pod `initialDelaySeconds: 5` `periodSeconds: 10` `failureThreshold: 2`. - Readiness probe: `tcpSocket` `port: 5000` `initialDelaySeconds: 5` `periodSeconds: 10` `failureThreshold: 2` `initialDelaySeconds: 5` `periodSeconds: 10` `failureThreshold: 2`. TCP `port: 5000` `initialDelaySeconds: 5` `periodSeconds: 10` `failureThreshold: 2` (check) `initialDelaySeconds: 5` `periodSeconds: 10` `failureThreshold: 2`. 2 `initialDelaySeconds: 5` `periodSeconds: 10` `failureThreshold: 2` Pod `initialDelaySeconds: 5` `periodSeconds: 10` `failureThreshold: 2` `initialDelaySeconds: 5` `periodSeconds: 10` `failureThreshold: 2`. `Flask` `port: 5000` `initialDelaySeconds: 5` `periodSeconds: 10` `failureThreshold: 2` `initialDelaySeconds: 5` `periodSeconds: 10` `failureThreshold: 2`.

NEW QUESTION: 51

5 `initialDelaySeconds: 5` `periodSeconds: 10` `failureThreshold: 2` `initialDelaySeconds: 5` `periodSeconds: 10` `failureThreshold: 2`. `initialDelaySeconds: 5` `periodSeconds: 10` `failureThreshold: 2` `initialDelaySeconds: 5` `periodSeconds: 10` `failureThreshold: 2`, `initialDelaySeconds: 5` `periodSeconds: 10` `failureThreshold: 2` `initialDelaySeconds: 5` `periodSeconds: 10` `failureThreshold: 2` `initialDelaySeconds: 5` `periodSeconds: 10` `failureThreshold: 2`. `initialDelaySeconds: 5` `periodSeconds: 10` `failureThreshold: 2` `initialDelaySeconds: 5` `periodSeconds: 10` `failureThreshold: 2`. 'rollingUpdate' `initialDelaySeconds: 5` `periodSeconds: 10` `failureThreshold: 2` `initialDelaySeconds: 5` `periodSeconds: 10` `failureThreshold: 2`?

Answer:

`initialDelaySeconds: 5` `periodSeconds: 10` `failureThreshold: 2`.

`initialDelaySeconds: 5`:

`initialDelaySeconds: 5`(`initialDelaySeconds: 5`):

1. `initialDelaySeconds: 5` YAMLI `initialDelaySeconds: 5`

- 'strategy.type' 'RollingUpdate' `initialDelaySeconds: 5`.

- `initialDelaySeconds: 5` `initialDelaySeconds: 5` `initialDelaySeconds: 5` `initialDelaySeconds: 5` `initialDelaySeconds: 5` 'strategy.rollingupdate.maxUnavailable' `initialDelaySeconds: 5` `initialDelaySeconds: 5`.

- `initialDelaySeconds: 5` `initialDelaySeconds: 5` `initialDelaySeconds: 5` `initialDelaySeconds: 5` `initialDelaySeconds: 5` 'strategy-rollingUpdate.maxSurge' `initialDelaySeconds: 5` `initialDelaySeconds: 5`.

```

apiVersion: apps/v1
kind: Deployment
metadata:
  name: my-critical-service
spec:
  replicas: 5
  selector:
    matchLabels:
      app: my-critical-service
  template:
    metadata:
      labels:
        app: my-critical-service
    spec:
      containers:
        - name: my-critical-service
          image: my-critical-service:latest
  strategy:
    type: RollingUpdate
    rollingUpdate:
      maxUnavailable: 1
      maxSurge: 1

```

2. `kubectl rollout restart deployment my-critical-service`: - `kubectl rollout restart deployment my-critical-service` will trigger a rolling update of the deployment. The rolling update will update the deployment to the latest version of the image. The rolling update will update the deployment to the latest version of the image. The rolling update will update the deployment to the latest version of the image. The rolling update will update the deployment to the latest version of the image.

```

strategy:
  type: RollingUpdate
  rollingUpdate:
    maxUnavailable: 1
    maxSurge: 1
    partition: 2

```

3. `kubectl apply -f my-critical-service-deployment.yaml`: - `kubectl apply -f my-critical-service-deployment.yaml` will apply the deployment configuration to the cluster. 4. `kubectl rollout restart deployment my-critical-service`: - `kubectl rollout restart deployment my-critical-service` will trigger a rolling update of the deployment. 5. `kubectl get pods -l app=my-critical-service`: - `kubectl get pods -l app=my-critical-service` will list the pods for the deployment. 6. `kubectl describe deployment my-critical-service`: - `kubectl describe deployment my-critical-service` will describe the deployment.

NEW QUESTION: 52

```

Set configuration context:
[student@node-1] $ kubectl config use-context k8s

```

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kdsn00101 □□□□□□□ □□ □□□ kdsn00101-deployment□□ □□□ □□□□□. □□□
□□ □□□□□.

* □□□ □□□ □□ Pod□ □□□□ □□ Pod □□□ □□□□□□ func=webFrontEnd □/□ □
□□□ □□□□□.

* □□□ 4□ □□

□□□□, kdsn00101 □□□□□□□ □□□ □□□□ □□□□ □□□□□.

* TCP □□ 8080□□ □□□□ □□□□□.

*□ kdsn00101-deployment □□□ □□ □□□ □□□ □□□□□.

* NodePort □□□□□.

* □□□□ □□□ □□□ □□□□□

Answer:

□□□ □□□□ □□□□□□.

□□

□□□:

```
student@node-1:~$ kubectl edit deployment kdsn00101-deployment -n kdsn00101
```

Readme Web Terminal THE LINUX FOUNDATION

```
Please edit the object below. Lines beginning with a '#' will be ignored,
# and an empty file will abort the edit. If an error occurs while saving this file will be
# reopened with the relevant failures.
#
apiVersion: apps/v1
kind: Deployment
metadata:
  annotations:
    deployment.kubernetes.io/revision: "1"
    creationTimestamp: "2020-10-09T08:50:39Z"
    generation: 1
  labels:
    app: nginx
  name: kdsn00101-deployment
  namespace: kdsn00101
  resourceVersion: "786"
  selfLink: /apis/apps/v1/namespaces/kdsn00101/deployments/kdsn00101-deployment
  uid: 8d3ace00-7761-4189-ba10-fbc676c311bf
spec:
  progressDeadlineSeconds: 600
  replicas: 1
  revisionHistoryLimit: 10
  selector:
    matchLabels:
      app: nginx
  strategy:
    type: RollingUpdate
  template:
    metadata:
      labels:
        app: nginx
    spec:
      containers:
      - image: nginx
        name: nginx
        ports:
        - containerPort: 80
        resources: {}
      restartPolicy: Always
```

1,1 Top

```
uid: 8d3ace00-7761-4189-ba10-fbc676c311bf
spec:
  progressDeadlineSeconds: 600
  replicas: 4
  revisionHistoryLimit: 10
  selector:
    matchLabels:
      app: nginx
  strategy:
    rollingUpdate:
      maxSurge: 25%
      maxUnavailable: 25%
    type: RollingUpdate
  template:
    metadata:
      creationTimestamp: null
    labels:
      app: nginx
      func: webFrontEnd
  spec:
    containers:
      - image: nginx:latest
        imagePullPolicy: Always
        name: nginx
        ports:
          - containerPort: 80
```

```
student@node-1:~$ kubectl edit deployment kdsn00101-deployment -n kdsn00101
deployment.apps/kdsn00101-deployment edited
student@node-1:~$ kubectl get deployment kdsn00101-deployment -n kdsn00101
NAME                    READY    UP-TO-DATE    AVAILABLE    AGE
kdsn00101-deployment    4/4      4             4            7h17m
student@node-1:~$ kubectl expose deployment kdsn00101-deployment -n kdsn00101 --type NodePort --
port 8080 --name cherry
service/cherry exposed
```

NEW QUESTION: 53

PostgreSQL □□□□□□ □□□ □□□ Spring Boot □□□□□□□□ □□□□. □□□□ Pod □□
PostgreSQL □□□□□□ □□□□ □□□□ □□□□ □□□□ □□□□□□□□ □□□□
□□ □□ □□□ □□□□□. □□□□□□□□ PostgreSQL □□□□□□ □□□□ □□□ □□ □□
□□□□□□ □□□□ □□□□ □□□□□□□□.

Answer:

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐.

□ □ :

□ □ □ (□ □ □) :

1. PostgreSQL ☐☐☐☐ ☐☐.

```
- PostgreSQL □□□□□ □□□□□ □□□□ □□ YAML □□(□: 'postgresql-sidecar.yaml')□
□□□□.
```

- PostgreSQL □□□□□ □□ □□□, □□□ □□ □ □□□ □□□□□.

- □□□□□□ □□, □□□ □□, □□□□□□ □□□ □□□□□□ □□ □□□ □□□□□□.

- □□□□□□ □□□□ □□ □□ □□ □□□(PVC)□ □□□□ □□ □□ □□□□ □□□□
□

```

apiVersion: v1
kind: Pod
metadata:
  name: spring-boot-app-with-sidecar
spec:
  containers:
  - name: spring-boot-app
    image: your-spring-boot-application-image:latest
    ports:
    - containerPort: 8080
    env:
    - name: DB_HOST
      value: postgresql-sidecar
    - name: DB_PORT
      value: "5432"
    - name: DB_USER
      value: "postgres"
    - name: DB_PASSWORD
      value: "your-password"
    volumeMounts:
    - name: postgresql-data
      mountPath: /var/lib/postgresql/data
  - name: postgresql-sidecar
    image: postgres:latest
    ports:
    - containerPort: 5432
    env:
    - name: POSTGRES_USER
      value: "postgres"
    - name: POSTGRES_PASSWORD
      value: "your-password"
    - name: POSTGRES_DB
      value: "your-database-name"
    volumeMounts:
    - name: postgresql-data
      mountPath: /var/lib/postgresql/data
  volumes:
  - name: postgresql-data
    persistentVolumeClaim:
      claimName: your-pvc-name

```

2. Create PVC (PVC) for PostgreSQL data. PVC (name: 'postgresql-pvc.yaml')
 Create PVC for PostgreSQL data, which is used by the PostgreSQL sidecar container.

```

persistentVolumeClaim
:
your-pvc-name

Modes:
WriteOnce

```



```
3. Spring Boot 部署 - 部署 Spring Boot 应用
部署 PostgreSQL 应用
部署 'postgresql-sidecar' 应用
4. Pod 部署: - 'kubectl apply -f spring-boot-app-with-sidecar_yaml' 部署 YAML 文件
5. 部署: - 'kubectl get pods' 查看 Pod
部署 PostgreSQL 应用
部署 'your-spring-boot-application-image:latest', 'your-password', 'your-database-name', 'your-pvc-name' 部署 'your-storage-class-name' 部署 PostgreSQL 应用
```

NEW QUESTION: 54

1. 在 pod 中，我们使用 `StatefulSet` 来部署应用，并设置 `Pod` 的 `restartPolicy` 为 `Always`。

Answer:

[illegible]

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□ □ □ (□ □ □) :

1. □□□ □□ □□ □□:

- □□□□□□□ □□□ □□□□ □□□□□. Pod□ □□ □□□ □□□□ □□ □□□ □□□
□ □□□□□.

- Kubernetes ☐☐☐☐ ☐☐ ☐☐☐ ☐☐☐☐☐

- □□□□□□□ □□ □□□ □□ □□□ □□ □□□□ □□ □□□□ □□□ □□□ □□□□

□.

2. StatefulSet

[illegible]

- □□: □□□ □□□ □□ □□□ □□ □□□□□.

- limits: Pod□ □□□ □ □□ □□□□ □□□□ □□□□.

```

apiVersion: apps/v1
kind: StatefulSet
metadata:
  name: my-critical-app
spec:
  serviceName: "my-critical-app"
  replicas: 3
  selector:
    matchLabels:
      app: my-critical-app
  template:
    metadata:
      labels:
        app: my-critical-app
    spec:
      containers:
        - name: my-critical-app
          image: my-app-image:latest
          resources:
            requests:
              memory: "2Gi"
              cpu: "1" # 1 CPU core
            limits:
              memory: "4Gi"
              cpu: "2" # 2 CPU cores

```

3. StatefulSet □□ □□: - □□□□□ StatefulSet □□□ Kubernetes □□□□□ □□□□□:

bash kubectl apply -f my-critical-app-statefulset.yaml 4. □□□ □□□ □□□□: - 'kubectl

describe pod'□ □□□□ □□□ □□□ □□□□ □□□□□□□□. - □□□ □□□ □□□□ □□□ □□ □□□ □□□□ □□□ □□□□□.

NEW QUESTION: 55

□□ □□□ □□□ □□ □□□□□ □□□□ □□□ □□□ □□□ Kubernetes □□□□□□□□ □□□□ □□□□. □□□□□ □□□□ □ □ 30□□ □□□, □□ □□□□ □□□□ □□ □□ □□□ □□ □□□ □□□□□. □□□ □□ □□□ □□□□ □□ □□□□ □□□ □□ □□□□□□?

Answer:

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□□:

□□□(□□□):

1). □□ □□ □□□ □□:

- □□□ □□ □□□ □□□□ □□ □□ □□ □□□(PVC)□ □□□□□.

- □□□□ □□□ □□ □□□ □□□ □□□□ □□□□ □□□□□.

```

apiVersion: v1
kind: PersistentVolumeClaim
metadata:
  name: data-processing-pvc
spec:
  accessModes:
    - ReadWriteOnce
  resources:
    requests:
      storage: 1Gi
  storageClassName: "standard"

```

2. □□ □□□ □□: - 'cronJob' □□□ □□□□ □□ □□□ □□□ □□□□□ □□ □□□□

□□□□. - □□ □ □□□ □□□ □□□□ □□ 'backoffLimit'□ □□□□□□. - □□□ □□ □□

□□□ □□□□ □□□□□ □□ 'spec-template.spec.containers' □□□ □□□□□. -

'volumeMounts' PVC PVC PVC PVC.

```
apiVersion: batch/v1
kind: Job
metadata:
  name: data-processing-job
spec:
  template:
    spec:
      restartPolicy: Never
      containers:
      - name: data-processing
        image: your-image-name:latest
        command: ["/bin/sh", "-c", "your-data-processing-script.sh"]
        volumeMounts:
        - name: data-volume
          mountPath: /data
      volumes:
      - name: data-volume
        persistentVolumeClaim:
          claimName: data-processing-pvc
      schedule: "0 0 * * * # Run at midnight daily"
      backoffLimit: 3
```

3. `kubectl apply -f data-processing-job.yaml` PVC PVC PVC YAML PVC
PVC. 4. `kubectl get jobS` PVC PVC PVC PVC PVC PVC. -
'status.completionTime' PVC PVC PVC PVC PVC PVC PVC. - PVC
PVC PVC PVC PVC PVC PVC PVC PVC. 5. PVC PVC - PVC PVC
PVC "data" PVC PVC PVC PVC PVC 'your-data-processing-script.sh' PVC
PVC PVC. 6. `kubectl logs` PVC PVC PVC PVC PVC PVC
PVC PVC PVC PVC PVC PVC PVC PVC. PVC: 'your-image-name:latest'
'your-data-processing-scriptsh' PVC PVC PVC PVC PVC PVC PVC.

NEW QUESTION: 56

'my-app' PVC PVC PVC PVC PVC PVC, PVC PVC PVC PVC PVC
PVC PVC PVC. PVC PVC PVC PVC PVC APL PVC PVC PVC PVC PVC
PVC PVC PVC PVC. "PVC" PVC PVC 'my-app' PVC PVC PVC PVC
PVC PVC PVC PVC PVC PVC (RBAC) PVC PVC PVC.

Answer:

PVC PVC PVC PVC PVC PVC.

PVC:

PVC(PVC):

1. PVC PVC: 'my-app' PVC PVC PVC PVC PVC PVC PVC.

```

apiVersion: rbac.authorization.k8s.io/v1
kind: Role
metadata:
  name: my-app-pod-reader
  namespace: default # Replace 'default' with your namespace
rules:
- apiGroups: ["apps"]
  resources: ["deployments/pods"]
  verbs: ["get", "list", "watch"]

```

2. RoleBinding. Create 'my-app' namespace.

```

apiVersion: rbac.authorization.k8s.io/v1
kind: RoleBinding
metadata:
  name: my-app-pod-reader-binding
  namespace: default # Replace 'default' with your namespace
roleRef:
  apiGroup: rbac.authorization.k8s.io
  kind: Role
  name: my-app-pod-reader
subjects:
- kind: Group
  name: developers

```

3. Create namespace: 'kubectl apply -f my-app-pod-readen.yaml' or 'kubectl apply -f my-app-pod-reader-binding.yaml' 4. Create 'developers' group in 'my-app' namespace. 'kubectl apply -f my-app-pod-readen.yaml' or 'kubectl apply -f my-app-pod-reader-binding.yaml'.

NEW QUESTION: 57

1)

~/human-stork/build/Dockerfile Dockerfile

1) Create Dockerfile in ~/human-stork/build directory. lag 3.0 tarball. Create Dockerfile in ~/human-stork/build directory.

Multiple image builders and tools have been provided for the Linux system, including: docker, skopeo, buildah, img, and podman. Please do not push the built image to a registry, run a container, or otherwise consume it.

2) Create Dockerfile in ~/human-stork/build directory. OC image in ~/human-stork/build directory. lag 3.0 tarball. Create Dockerfile in ~/human-stork/build directory.

Answer:

1)

2)

```

candidate@node-1:~$ cd humane-stork/build/
candidate@node-1:~/humane-stork/build$ ls -l
total 16
-rw-r--r-- 1 candidate candidate 201 Sep 24 04:21 Dockerfile
-rw-r--r-- 1 candidate candidate 644 Sep 24 04:21 text1.html
-rw-r--r-- 1 candidate candidate 813 Sep 24 04:21 text2.html
-rw-r--r-- 1 candidate candidate 383 Sep 24 04:21 text3.html
candidate@node-1:~/humane-stork/build$ sudo docker build -t macaque:3.0 .
Sending build context to Docker daemon 6.144kB
Step 1/5 : FROM docker.io/lfcccncf/nginx:mainline
--> ea335eeal7ab
Step 2/5 : ADD text1.html /usr/share/nginx/html/
--> 8967ee9ee5d0
Step 3/5 : ADD text2.html /usr/share/nginx/html/
--> cb0554422f26
Step 4/5 : ADD text3.html /usr/share/nginx/html/
--> 62e879ab821e
Step 5/5 : COPY text2.html /usr/share/nginx/html/index.html
--> 331c8a94372c
Successfully built 331c8a94372c
Successfully tagged macaque:3.0
candidate@node-1:~/humane-stork/build$ sudo docker save macaque:3.0 > ~/humane-stork/macaque-3.0.tar
candidate@node-1:~/humane-stork/build$ cd ..
candidate@node-1:~/humane-stork$ ls -l
total 142532
drwxr-xr-x 2 candidate candidate 4096 Sep 24 04:21 build
-rw-rw-r-- 1 candidate candidate 145948672 Sep 24 11:39 macaque-3.0.tar
candidate@node-1:~/humane-stork$

```

```

File Edit View Terminal Tabs Help
candidate@node-1:~$ vim ~/chief-cardinal/nosql.yaml
candidate@node-1:~$ kubectl apply -f ~/chief-cardinal/nosql.yaml
deployment.apps/nosql configured
candidate@node-1:~$ kubectl get pods -n crayfish
NAME                READY   STATUS    RESTARTS   AGE
nosql-74ccc7d64-lkqlg 1/1     Running   0           3m2s
candidate@node-1:~$ kubectl get deploy -n crayfish
NAME    READY   UP-TO-DATE   AVAILABLE   AGE
nosql   1/1     1             1           7h16m
candidate@node-1:~$ cd humane-stork/build/
candidate@node-1:~/humane-stork/build$ ls -l
total 16
-rw-r--r-- 1 candidate candidate 201 Sep 24 04:21 Dockerfile
-rw-r--r-- 1 candidate candidate 644 Sep 24 04:21 text1.html
-rw-r--r-- 1 candidate candidate 813 Sep 24 04:21 text2.html
-rw-r--r-- 1 candidate candidate 383 Sep 24 04:21 text3.html
candidate@node-1:~/humane-stork/build$ sudo docker build -t macaque:3.0 .
Sending build context to Docker daemon 6.144kB
Step 1/5 : FROM docker.io/lfcccncf/nginx:mainline
--> ea335eeal7ab
Step 2/5 : ADD text1.html /usr/share/nginx/html/
--> 8967ee9ee5d0
Step 3/5 : ADD text2.html /usr/share/nginx/html/
--> cb0554422f26
Step 4/5 : ADD text3.html /usr/share/nginx/html/
--> 62e879ab821e
Step 5/5 : COPY text2.html /usr/share/nginx/html/index.html
--> 331c8a94372c
Successfully built 331c8a94372c
Successfully tagged macaque:3.0
candidate@node-1:~/humane-stork/build$ sudo docker save macaque:3.0 > ~/humane-stork/macaque-3.0.tar

```

NEW QUESTION: 58

□□ □□□ Maven □ □□□□ Java □□□□□□□□ □□□□ □□□□ □□□□□ □□□□. □
 □□ □□□□ □□□ □□□ □□□□ □□ □□□□ □□ □□□ □□□□ □□
 □ □□□.

Answer:

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□□:

□□□(□□□):

1. □□ □□□ □□:

- □□□□ Java □□□ □□(OpenJDK □)□ □□□ □□ □□(□: Debian, Ubuntu)□ □□□□ □

□ □□□□ □□□□□.

- □:

□□□

openjdk□□: 11 -jre-slim-buster

2. Maven □□(□□ □□):

- 'wget'□ □□□□ □□□□ □□□ Maven □□□ □□□□□□ □□□□□.

- □:

□□□

wget -nv https://apache.org/dyn/closer.lua/maven/maven-3/3.8.6/binaries/apache-maven-3.8.6-bin.tar.gz□ □□□□□.

&& tar -xzf apache-maven-3.8.6-bin.tar.gz -C /usr/local \

&& ln -s /usr/local/apache-maven-3.8.6/bin/mvn /usr/bin/mvn \

&& rm apache-maven-3.8.6-bin.tar.gz

3. □□□□□□ □□ □□:

- Java □□□□□□ □□□ 'pom.xml'□□ Docker □□□□ □□□□□.

- □:

□□□□

□□

4. Java □□□□□□ □□:

- 'mvn' □□□ □□□□ 'RUN' □□□□ □□□□ Java □□□□□□□ □□□□□.

- □:

□□□□

RUN mvn clean □□□

5. □□□ □□(□□ □□):

- □□□□□□□□ □□ □□□□ □□□ □□□ □□ Docker □□□□ □□ □□□□ □□□□□.

- □:

□□□

□□□ ["java", "-jar", "target/your-app.jar"]

6. □□ □ □□:

- 'docker build'□ □□□□ Docker □□□□ □□□□□.

- □□□□ Kubernetes□ □□□□□.

- □□□□ □□ □□□□□□□□ □□□ □ □□ Maven □□□ □□□□□□.

NEW QUESTION: 59

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Answer:

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□□:

□□□(□□□) :

1. Create a YAML file

- 'database-deployment.yaml' file.

- 'strategy-rollingupdate' section 'maxUnavailable: 1' 'maxSurge: 0' to ensure zero downtime during updates.

- Add labels to the selector and template to identify the pods.

- Set 'strategy-type' to 'RollingUpdate'.

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: database-deployment
spec:
  replicas: 3
  selector:
    matchLabels:
      app: database
  template:
    metadata:
      labels:
        app: database
    spec:
      containers:
        - name: database
          image: database-image:latest
          imagePullPolicy: Always
          readinessProbe:
            tcpSocket:
              port: 5432
            initialDelaySeconds: 15
            periodSeconds: 5
      strategy:
        type: RollingUpdate
        rollingUpdate:
          maxUnavailable: 1
          maxSurge: 0
```

2. Apply the deployment: - 'kubectl apply -f database-deployment.yaml'

3. Check the deployment: 'kubectl get deployments database-deployment'

4. Check the pods: - Docker Hub

5. Check the pods: 'kubectl get pods -l app=database'

6. Describe the deployment: 'kubectl describe deployment database-deployment'

7. Check the updated replicas: 'kubectl get deployment database-deployment -o jsonpath='{.spec.replicas}''

8. Check the replicas: 'kubectl get pods -l app=database'

9. Check the deployment status: 'kubectl get deployment database-deployment'

10. Check the pods status: 'kubectl get pods -l app=database'

NEW QUESTION: 60

A company wants to deploy a Python application to a Kubernetes cluster. The application is a simple web server that listens on port 80. The company has a Dockerfile for the application and a Kubernetes deployment manifest. The company wants to ensure that the application is always available and that updates are rolled out without downtime.

Answer:

1. The Dockerfile should be updated to ensure that the application is always available.

2. The Kubernetes deployment manifest should be updated to ensure that updates are rolled out without downtime.

3. The Kubernetes deployment manifest should be updated to ensure that the application is always available.

4. The Kubernetes deployment manifest should be updated to ensure that updates are rolled out without downtime.



THE
LINUX
FOUNDATION

```
app
requirements.txt
install -r requirements.txt
python "app.py"]
```

```
WORKDIR /app
```

COPY requirements.txt .

```
RUN pip install -r requirements.txt
```

COPY . .

```
CMD ["python", "app.py"]
```

```
- pip install Python requirements.txt - 'requirements.txt' pip install requests, pip
'requests' pip install requests pip install . - 'COPY' pip install requests pip
pip install requests pip install . 2. Python requests 'requests' pip install
pip install . - Python requests pip (requests Capp.py) pip 'requests' pip
pip install . - pip install requests pip install requests pip install
HTTP pip install.
```

```
import requests
```

```
def main():
```

```
response = requests.get("https://example.com")
print(response.status_code)
```

```
if __name__ == "__main__":
    main()
```



3. Docker □□□ □□: - □□□□□ 'docker build' □□□ □□□□ Dockerfile □□□ □□□ □□ □ □□□□□. docker build -t my-python-app . 4. □□□□ □□: - 'docker run' □□□ □□□□ □□□ □□□ □□□□ □□□□□ □□□□□. docker run -it my-python-app - □□□□□ Python □□□□□□□ □□□□ 'requests' □□□□□□ □□□□ □□ □□□ □□□ □ □□□ □.

NEW QUESTION: 61

11

No configuration context change is required for this task.

□ :

```

-/human-stork/build/Dockerfile Dockerfile

```

1) Dockerfile macque lag 3.0

Dockerfile macque lag 3.0

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2. □□□ □□□ □□:

- 'kubectl top pods -l app=wordpress-statefulset' □ □□□□ □□□□□□□ Pod□ CPU □ □□□ □□□□ □□□□□. □□□ □□□□ □□□ □□□ □□ □□□ □□ □ □□□□.

3. Pod □□□ □□:

- 'kubectl describe pod' □□□ □□□□ □□□□□□□ Pod □□ □□□□ □□□□□. "Back-Off" □□ "Failed"□ □□ □□□□ □□□ □□□□□. □□ □□□ □□ □□ □□ □□ □□□ □□□ □ □□□□.

4. □□ □□ □□□ □□:

- 'kubectl describe pvc' □□□ □□□□ □□□□□□□ Pod□□ □□□□ □□ □□ □□□□ □ □□□ □□□□□. □□□□ □□ □□□ □□, □□□ □□□ □□□ □ □□□□.

5. □□ □□ □□:

- 'kubectl describe node' □□□□ □□□□ □□□□□□□ □□□ □□ □□ □□□ □□□ □□□ □□□. □□□ □□□ □□□□□ □□□ □□□ □□ □□□□ □□□ □□ □ □□□□.

6. □□□□ □□ □□:

- □□□□□□□ □□□ StatefulSet□ □□ □□ □□ □□□□ □□□ □□□□□. 'ping'□□ 'nc'□ □□ □□□ □□□□ □□□ □□□□□□□.

7. □□□□□□□ □□ □□:

- □□□□□□□ □□□ MySQL□□ PostgreSQL□ □□ □□□□□□□□ □□□□ □□, □□□□ □□□ □□□ □ □□ □□□□ □□□ □□□ □□□ □□□□□□ □□ □□□ □□□□□.

8. □□ □□ □□:

- StatefulSet□ □□ □□□ □□□□□□□ □□□□ □□□□□. □□□□ □ □□□□□ □□ □□□ □□ 'maxunavailable' □□□ □□□ □□ □□□□ □□□ □□□□ □□ □□□□.

9. □□□ □□□□ □□□:

- 'kubectl exec' □□ 'kubectl port-forward'□ □□ □□□ □□□□ □□□□□□ □□□ □□□□ □□□□ □□ □□□ □□□ □□□ □□□□□. □□ □□ □□□ □□ □□□□□ □ □□ □ □□□□.

10. □□□□□□□ □□□ □□□□□.

- □□□□□□□ □□□ □□□ □□□□ □□ Pod □□□ □□□□□□ □□□ □□□□□ □□□ □□ □□□ □□ □□□ □□□ □□ □ □□□□.

NEW QUESTION: 63

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Answer:

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□□:

□□□(□□□):

1. Prometheus □□: Prometheus□ □□□□ □□□□ □□□□ □□□□ □□□□ □□□□□

□. □□□ □□□□ Kubernetes □□□□□ Prometheus□ □□□ □ □□□□.

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: prometheus
spec:
  replicas: 1
  selector:
    matchLabels:
      app: prometheus
  template:
    metadata:
      labels:
        app: prometheus
    spec:
      containers:
        - name: prometheus
          image: prom/prometheus:v2.37.1
          ports:
            - containerPort: 9090
          volumeMounts:
            - name: prometheus-config
              mountPath: /etc/prometheus
      volumes:
        - name: prometheus-config
          configMap:
            name: prometheus-config
```

2 Prometheus□ □□ ConfigMap□ □□□□. □□□ □□□□ □□ □ □□ □□□□
Prometheus□ □□□□ □□ ConfigMap□ □□□□□.


```

apiVersion: apps/v1
kind: Deployment
metadata:
  name: grafana
spec:
  replicas: 1
  selector:
    matchLabels:
      app: grafana
  template:
    metadata:
      labels:
        app: grafana
    spec:
      containers:
        - name: grafana
          image: grafana/grafana:latest
          ports:
            - containerPort: 3000
          volumeMounts:
            - name: grafana-config
              mountPath: /etc/grafana
      volumes:
        - name: grafana-config
          configMap:
            name: grafana-config

```

5. Grafana ConfigMap: Prometheus Grafana ConfigMap.

```

apiVersion: v1
kind: ConfigMap
metadata:
  name: grafana-config
data:
  dashboard.yaml: |-
    {
      "annotations": {
        "list": [
          {
            "builtIn": 1,
            "datasource": "-- Grafana --",
            "enable": true,
            "iconColor": "rgb(0, 211, 255, 1)",
            "name": "Annotations & Alerts",
            "type": "grafana"
          }
        ]
      },
      "editable": true,
      "gnetId": null,
      "graphTooltip": 0,
      "id": 1,
      "iteration": 1692859525986,
      "links": [],
      "panels": [
        {
          "datasource": "Prometheus",
          "fieldConfig": {
            "defaults": {
              "color": {
                "mode": "palette-classic"
              },
              "custom": {
                "axisLabel": "",
                "axisPlacement": "auto",
                "barAlignment": 0,
                "drawStyle": "line",
                "fill": 0,
                "fillColor": "rgb(215, 216, 216, 0.2)",
                "fillOpacity": 0.2,
                "gradientMode": "none",
                "hideFrom": {

```

```

        "legend": false,
        "tooltip": false,
        "vis": false
    },
    "lineInterpolation": "linear",
    "lineWidth": 2,
    "nullValueMode": "null",
    "percentage": false,
    "pointSize": 5,
    "showPoints": "auto",
    "spanNulls": false,
    "stack": false,
    "thresholds": [],
    "yaxis": {
        "format": "short",
        "label": null,
        "logBase": 1,
        "max": null,
        "min": null,
        "show": true,
        "ticks": [],
        "tickValues": []
    }
},
"mappings": [],
"override": {},
"thresholds": []
}
},
"series": [
    {
        "id": 0,
        "options": {
            "legend": {
                "avg": false,
                "current": true,
                "max": false,
                "min": false,
                "show": true,
                "total": false,
                "values": false
            },
            "tooltip": {
                "shared": true,
                "sort": 0,
                "value type": "individual"
            }
        },
        "pluginVersion": "0.2.1",
        "targets": [
            {
                "expr": "sum(rate(container_cpu_usage_seconds_total{pod=~\"$pod\", container=~\"$container\", instance=~\"$instance\"}[1m]))",
                "format": "time_series",
                "refId": "A",
                "step": 10,
                "type": "query"
            }
        ],
        "title": "CPU Usage",
        "type": "graph"
    }
],
"refresh": "5s",
"schemaVersion": 27,
"style": "dark",
"tags": [],
"templating": {
    "list": [
        {
            "allValue": "",
            "current": {
                "selected": false,
                "text": "All",
                "value": ""
            },
            "datasource": "Prometheus",
            "definition": "label_values(container_cpu_usage_seconds_total, pod)",
            "description": "",
            "error": null,
            "hide": 0,
            "includeAll": true,
            "label": null,
            "multi": false,
            "name": "pod",
            "options": [],
            "query": "",
            "queryType": "label_values",
            "refresh": 1,
            "regex": "",
            "sort": 0,
            "tags": [],
            "type": "query",
            "useTags": false,
            "value": ""
        },
        {
            "allValue": "",
            "current": {
                "selected": false,
                "text": "All",
                "value": ""
            },
            "datasource": "Prometheus",
            "definition": "label_values(container_cpu_usage_seconds_total, container)",
            "description": "",
            "error": null,
            "hide": 0,
            "includeAll": true,
            "label": null,
            "multi": false,
            "name": "container",
            "options": [],
            "query": "",
            "queryType": "label_values",
            "refresh": 1,
            "regex": "",
            "sort": 0,
            "tags": [],
            "type": "query",
            "useTags": false,
            "value": ""
        }
    ]
}

```




```
name: grafana
ec:
ports:
- port: 3000
  targetPort: 3000
```

9. **Monitoring:** Prometheus and Grafana are used for monitoring system metrics. Prometheus scrapes metrics from various sources, and Grafana provides a visual interface for these metrics.

NEW QUESTION: 64

□ □ □ :

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livenessProbe aopticaun

[illegible]

```

0000 00 00 00 00000000 00 0000 /opt/KDOB00401/broken.txt 0
0000.

```

<namespace>/<pod>

☐ ☐☐☐☐ ☐☐ ☐☐☐☐☐☐

```
* cat /opt/KDOB00401/error.txt cat . cat cat
cat. cat -o wide cat cat cat.
* cat.
```



A. cat:

cat cat:

```
kubectl create -f http://k8s.io/docs/tasks/configure-pod-container/exec-liveness.yaml
```

```
30 cat Pod cat cat.
```

```
kubectl describe pod liveness-exec
```

```
cat cat cat cat cat cat cat.
```

```
SubobjectPath cat cat cat cat FirstSeen LastSeen Count cat cat.
```

```
-----
```

```
24 24 1 {cat cat} cat cat liveness-exec worker0 cat cat
```

```
23 23 1 {kubelet worker0} spec.containers{liveness} cat cat cat
```

```
"gcr.io/google_containers/busybox" cat
```

```
kubectl describe pod liveness-exec
```

```
cat cat cat cat cat cat cat cat cat cat cat cat cat cat
cat cat.
```

```
SubobjectPath cat cat cat cat FirstSeen LastSeen Count cat cat.
```

```
-----
```

```
37 37 1 {cat cat} cat cat liveness-exec worker0 cat cat
```

```
36 36 1 {kubelet worker0} spec.containers{liveness} cat cat cat
```

```
"gcr.io/google_containers/busybox" cat
```

```
36 36 1 {kubelet worker0} spec.containers{liveness} cat cat cat cat
```



```
seccompProfile: {type: 'Unconfined'}
```

```
36 36 1 {kubelet worker0} spec.containers{liveness} docker id 86849c15382e
```

```
2 2 1 {kubelet worker0} spec.containers{liveness} Liveness
```

```
30 cat: '/tmp/healthy': No such file or directory.
```

```
kubectl get pod liveness-exec
```

```
RESTARTS
```

```
liveness-exec 1/1
```

```
liveness-exec 1/1 1m
```

Answer: ([SHOW ANSWER](#))

NEW QUESTION: 65

StatefulSet

Answer:

StatefulSet

1. StatefulSet

1. StatefulSet

1. StatefulSet

```
apiVersion: apps/v1
kind: StatefulSet
metadata:
  name: my-database
spec:
  serviceName: "my-database"
  replicas: 3
  selector:
    matchLabels:
      app: my-database
  template:
    metadata:
      labels:
        app: my-database
    spec:
      containers:
        - name: database
          image: postgres:14.2
          ports:
            - containerPort: 5432
          volumeMounts:
            - name: data
              mountPath: /var/lib/postgresql/data
      volumes:
        - name: data
          persistentVolumeClaim:
            claimName: my-database-pvc
```

2. PersistentVolumeClaim(PVC)

YAML □□□ □□□□.

```
apiVersion: v1
kind: Secret
metadata:
  name: database-api-key
  namespace: your-application-namespace
type: Opaque
data:
  api_key:
```

3. □□ □ □□ □□ □□□: - □□ □□□ □□□□ 'database-role.yaml'□□□ □□ YAML □□ □□□□.

```
apiVersion: rbac.authorization.k8s.io/v1
kind: Role
metadata:
  name: database-role
  namespace: your-application-namespace
rules:
- apiGroups: [""]
  resources: ["secrets"]
  verbs: ["get", "list", "watch"]
```

4. RoleBinding YAML□ □□□□. - □□ □□□ □□□□ 'database-rolebinding.yaml'□□□ □ □□ RoleBinding YAML □□□ □□□□.

```
apiVersion: rbac.authorization.k8s.io/v1
kind: RoleBinding
metadata:
  name: database-rolebinding
  namespace: your-application-namespace
roleRef:
  apiGroup: rbac.authorization.k8s.io
  kind: Role
  name: database-role
subjects:
- kind: ServiceAccount
  name: database-service-account
  namespace: your-application-namespace
```

5. YAML □□ □□: - 'kubectl apply -f database-service-account.yaml', 'kubectl apply -f database-api-key.yaml', 'kubectl apply -f database-role.yaml', 'kubectl apply -f database-rolebinding.yaml'□ □□□ □□□ YAML □□□ □□□□□. 6. □□ □□□□: - 'database-service-account'□ □□ □□ API □□ □□□ □□□ □□□□□□ □□□□□□ □□□ □□□□□□□□.

```

apiVersion: apps/v1
kind: Deployment
metadata:
  name: your-application-deployment
  namespace: your-application-namespace
spec:
  template:
    spec:
      serviceAccountName: database-service-account
      containers:
      - name: your-application
        image: your-application-image
        env:
        - name: DATABASE_API_KEY
          valueFrom:
            secretKeyRef:
              name: database-api-key
              key: api_key

```

7. □□ □□□□□□□□ □□□: - □□ □□□□□□ □□□□□ □□□ □□□ API □□ □□□ □□ □□□□□□□□ □□□□ □□□□ □□□.

NEW QUESTION: 67

'wordpress-deployment'□□ □□□ Kubernetes □□□ □□□, WordPress □□□□□□□□ □□ □□□□□ □□□□□. 'maxSurge'□ 1□ □□□□□ 'maxUnavailable'□ 0□□ □□□□ □□ □□□□ □□□□□ □□□. □□ Docker Hub □□□ 'wordpress-image:latest'□ □□ □□ □□□ □□□□□ □□□□□ □□□□□ □□□□□ □□□□□. □□ □□ □□□ □□ □□□□□.

Answer:

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□□:

□□□(□□□):

1. □□□ □□□□□ 'kustomization.yamr' □□□ □□□□.

```

resources:
- deployment.yaml
patchesStrategicMerge:
- patch.yaml

```

2. □□ □□□ 'deployment-yamr □□'□ □□□□(□□ □□ □□□ □□□□□).

```

apiVersion: apps/v1
kind: Deployment
metadata:
  name: wordpress-deployment
spec:
  replicas: 3
  selector:
    matchLabels:
      app: wordpress
  template:
    metadata:
      labels:
        app: wordpress
    spec:
      containers:
        - name: wordpress
          image: wordpress-image:latest
          imagePullPolicy: Always

```

3. Create a patch file named 'patch.yaml' with the following content:

```

---
apiVersion: apps/v1
kind: Deployment
metadata:
  name: wordpress-deployment
spec:
  strategy:
    type: RollingUpdate
    rollingUpdate:
      maxSurge: 1
      maxUnavailable: 0

```

4. Kustomization: bash kubectl apply -k - 'kustomization.yaml' (or 'deployment.yaml') to create the deployment. Then, apply the patch file 'patch.yaml' to update the deployment with the following changes: 'maxSurge' to 1, 'maxUnavailable' to 0, and 'imagePullPolicy' to 'Always'. The 'imagePullPolicy' is set to 'Always' to ensure that the latest version of the image is pulled from Docker Hub.

NEW QUESTION: 68

You are a DevOps engineer and you need to create a Kubernetes deployment for a web application. The application is built using Docker and is available on Docker Hub. You want to create a deployment with 3 replicas and use a rolling update strategy. You also want to ensure that the deployment is updated only when necessary (i.e., when the image is updated). How can you achieve this?

Answer:

1. Create a deployment manifest file named 'deployment.yaml' with the following content:

2. Apply the deployment manifest file to the cluster:

3. Create a patch file named 'patch.yaml' with the following content:

4. Apply the patch file to the deployment:

- GitHub, GitLab, Bitbucket, or any other Git provider.

Set configuration context:



```
[student@node-1] $ kubectl config  
use-context k8s
```



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□□□□□□.

□

kdsn00101 □□□□□□□ □□ □□□ kdsn00101-deployment□□ □□□ □□□□□. □□□
□□ □□□□□.

* □□□ □□□ □□ Pod□ □□□□ □□ Pod □□□ □□□□□□ func=webFrontEnd □/□ □
□□□ □□□□□.

* □□□ 4□ □□

□□□□, kdsn00101 □□□□□□□ □□□ □□□□ □□□□ □□□□□.

* TCP □□ 8080□□ □□□□ □□□□□.

*□ kdsn00101-deployment □□□ □□ □□□ □□□ □□□□□.

* NodePort □□□□□.

* □□□□ □□□ □□□ □□□□

Answer:

□□□:

```
student@node-1:~$ kubectl edit deployment kdsn00101-deployment -n kdsn00101
```



```
Readme Web Terminal THE LINUX FOUNDATION

Please edit the object below. Lines beginning with a '#' will be ignored,
and an empty file will abort the edit. If an error occurs while editing this file will be
reopened with the relevant failures.
#
apiVersion: apps/v1
kind: Deployment
metadata:
  annotations:
    deployment.kubernetes.io/revision: "1"
    creationTimestamp: "2020-10-09T08:30:39Z"
    generation: 1
  labels:
    app: nginx
  name: kdsn00101-deployment
  namespace: kdsn00101
  resourceVersion: "4786"
  selfLink: /apis/apps/v1/namespaces/kdsn00101/deployments/kdsn00101-deployment
  uid: 8d3ace00-7761-4189-ba10-fbc676c311bf
spec:
  progressDeadlineSeconds: 600
  replicas: 4
  revisionHistoryLimit: 10
  selector:
    matchLabels:
      app: nginx
  strategy:
    type: RollingUpdate
  template:
    metadata:
      creationTimestamp: null
      labels:
        app: nginx
        func: webFrontEnd
    spec:
      containers:
      - image: nginx:latest
        imagePullPolicy: Always
        name: nginx
        ports:
        - containerPort: 80
```

```
Readme Web Terminal THE LINUX FOUNDATION

uid: 8d3ace00-7761-4189-ba10-fbc676c311bf
spec:
  progressDeadlineSeconds: 600
  replicas: 4
  revisionHistoryLimit: 10
  selector:
    matchLabels:
      app: nginx
  strategy:
    rollingUpdate:
      maxSurge: 25%
      maxUnavailable: 25%
    type: RollingUpdate
  template:
    metadata:
      creationTimestamp: null
      labels:
        app: nginx
        func: webFrontEnd
    spec:
      containers:
      - image: nginx:latest
        imagePullPolicy: Always
        name: nginx
        ports:
        - containerPort: 80

student@node-1:~$ kubectl edit deployment kdsn00101-deployment -n kdsn00101
deployment.apps/kdsn00101-deployment edited
student@node-1:~$ kubectl get deployment kdsn00101-deployment -n kdsn00101
NAME                                READY    UP-TO-DATE    AVAILABLE    AGE
kdsn00101-deployment                4/4      4              4            7h17m
student@node-1:~$ kubectl expose deployment kdsn00101-deployment -n kdsn00101 --type NodePort --
port 8080 --name cherry
service/cherry exposed
```

NEW QUESTION: 70

□□□□□□□□ □□□□□□□□ □□□□□□□□ □□ □□□, □□□ □ □□□ □□ □□□ □□
□□ □□□. □□ □□, '□□□□□' □□□□ 8080 □□□ □□□□ '□□□' □□□□ □□□ □
□□□□ □□□. □□□□□□□ NetworkPolicy □ □□□□ □□ □□□ □□□□ □□□□ □□□□?

Answer:

□□□ □□□ □□ □□□ □□□□ □□□□□.

□□:

□□□(□□□):

1. NetworkPolicy□ □□□□□.

- □□□□ □□□ □□□□ □□ □□□ YAML □□(□: 'frontend-network-policy.yaml')□ □□□ □.

- NetworkPolicy□ □□□ □□□ □□□□□□□ □□□□□.

- '□□' □□□ □□ □□□ □□□□□.

- '□□□□□' □□□ □□□□ □□ 'podSelector'.

- 'ingress' □□□ □□□□ □□□ □□□ □□□□□.

- 'egress' □□□ □□□□□ □□□ □□□ □□□□□.

```
apiVersion: networking.k8s.io/v1
kind: NetworkPolicy
metadata:
  name: frontend-network-policy
  namespace: your-namespace
spec:
  podSelector:
    matchLabels:
      app: frontend
  ingress:
    - from:
        - podSelector:
            matchLabels:
              app: backend
      ports:
        - protocol: TCP
          port: 8080
  egress:
    - to:
        - ipBlock:
            cidr: 0.0.0.0/0
      ports:
        - protocol: TCP
          port: 8080
```

2. NetworkPolicy □□: - □□ □□□ □□□□ □□□□□ NetworkPolicy□ □□□□□. bash

kubectl apply -f frontend-network-policy.yaml 3. NetworkPolicy □□: - 'kubectl get networkpolicy'

□□□ □□□□ □□□ NetworkPolicy□ □□□□ □□□ □□□□□. 4. □□ □□ □□□: -

'frontend' □□□□ □□ 8080□□ 'backend' □□□□ □□□ □□□□□. - □□□ □□ □□ □

□□□□ □□ □□□□ □□□ □□□ □□□□□. - NetworkPolicy□ □□□ □□ □□ □□□

□□□□ □□□□□ □□□□□.

NEW QUESTION: 71

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□□ □□ □□□□ □□ □□□ □□□□ □ □□□ □□□ □□□ □□□.

Answer:

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□□□(□□□):

1. Blue □□ □□□:

- □□□□□□□□ □□□□□ □□□□ □□□ □□□ □□□□.

- □ □□□ □ □□□(□: 'app=my-service-blue')□ □□□□□.

- 'app=my-service-blue' □□□ □□□□ '□□□□'□ □□ '□□□□□ □□□□ tramc□ tne blue □
□□ □□□□□□.

2. □□□ □□□ □□□□.

- □□ □□□ □□□□□□□□□□ □□□□ □ □□ □□□ □□□□.

- □ □□□ □□ □□□(□: 'app=my-service-green')□ □□□□□.

3. □□□ □□:

- □□□□ □□ □□ Capp=my-service-greeru)_□□ □□□□ □□ '□□□□'□ □□□□□.

4. □□ □□(□□ □□):

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□□ □□ □□□□ □□□□ □□□□□ □□ □ □□□□.

5. □□□□ □□□□□ □□:

- □□□ □□□ □□ □□□ □□□ '□□□□'□ □□□□□□ □□□ □□(Capp=my-service-blue)
□ □□□□ □□ □□ □□□ □□□□□.

6. □□:

- □ □□ □□□□ □□ □□ □□□ □□□□ □□□.

7. □□□ □□/□□□ □□(CI/CD):

- CI/CD □□□ □□ □□□□□ □□□□ □□ □□□□ □□ □□-□□ □□□ □□□□□□.

NEW QUESTION: 72

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□□ □□□□ □□:

[student@node-1] \$ | kubectl

k8s 00 0000 00

00

000 000 000 0000, 00 000 00 00 000 000 0000 000.

0

000 000 000.

* 000 YAMLspec 00 /opt/KDOB00201/counter.yaml 0000 00000 000 000
00000.

* 00 00 0000 00 00 000 00 0000000 000 00000 00 00

0 /opt/KDOB00201/log_Output.txt 000 000000.

Answer:

000:

000 YAML 00 000 0000 000000 000 000 00000 kubectl apply 000
000 0 0000. apply 000 000000 0000 0000 00000000.

kubectl 00 -f /opt/KDOB00201/counter.yaml

0 000 00000 Pod 0 00000. kubectl get pods 000 00000 Pod 0 000 000
0 00 000 000 0 00000.

kubectl 00 00 00000

00 00 Pod 00 00 000 00 0000000 000 000

0 /opt/KDOB00201/log_Output.txt 000 000000 kubectl logs 000 000 0 00000.

logs 000 Pod 0 0000000 000 000000.

kubectl logs -f <00 00> > /opt/KDOB00201/log_Output.txt

<pod-name> 0 000 00000 00000.

-f 000 00000 000 000000 00 00000.

kubectl logs -f <pod-name> > /opt/KDOB00201/log_Output.txt &

0 000 00000 000 00000 /opt/KDOB00201/log_Output.txt 000 000000.

0 000 00 000 00000 Pod 00 000 000000. 00 00 0 000 0 000 0

0000 kubectl logs 000 --since 0000 00000 000 00000 000. 00 00, 00
2400 00 000 000 00 --since=24h 0 000000.

00, 000 00 00 000000 00 00 -c 000 00000 00000 000 00000 00
0.

kubectl logs -f <pod-name> -c <container-name> > /opt/KDOB00201/log_Output.txt 0 000 0
00 000000 000 000 00000000.

```
student@node-1:~$ kubectl create -f /opt/KDOB00201/counter.yaml
pod/counter created
student@node-1:~$ kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
counter       1/1     Running   0           10s
liveness-http 1/1     Running   0           6h45m
nginx-101     1/1     Running   0           6h46m
nginx-configmap 1/1     Running   0           107s
nginx-secret  1/1     Running   0           7m21s
poller        1/1     Running   0           6h46m
student@node-1:~$ kubectl logs counter
1: 2b305101817ae25ca60ae46510fb6d11
2: 3648cf2eae95ab680dba8f195f891af4
3: 65c8bbd4dbf70bf81f2a0984a3a44ede
4: 40d3a9c8e46f5533bb4828fbc5c8d038
5: 390442d2530a90c3602901e3fe999ac8
6: b71d95187417e139effb33af77681040
7: 66a8e55a6491e756d2d0549ad6ab90a7
8: ff2b3d583b64125d2f9129c443bb37ff
9: b6c6a12b6e77944ed8baaaf6c242dae4
10: bfcc9a894a0604fc4b814b37d0a200a4
student@node-1:~$ kubectl logs counter > /opt/KDOB00201/log_output.txt
student@node-1:~$
```

```
student@node-1:~$ kubectl logs counter > /opt/KDOB00201/log_output.txt
student@node-1:~$ kubectl logs counter > /opt/KDOB00201/log_output.txt
student@node-1:~$ cat /opt/KDOB00201/log_output.txt
```

[Readme](#) [Web Terminal](#) 

```
student@node-1:~$ kubectl logs counter > /opt/KDOB00201/log_output.txt
student@node-1:~$ cat /opt/KDOB00201/log_output.txt
1: 2b305101817ae25ca60ae46510fb6d11
2: 3648cf2eae95ab680dba8f195f891af4
3: 65c8bbd4dbf70bf81f2a0984a3a44ede
4: 40d3a9c8e46f5533bb4828fbc5c8d038
5: 390442d2530a90c3602901e3fe999ac8
6: b71d95187417e139effb33af77681040
7: 66a8e55a6491e756d2d0549ad6ab90a7
8: ff2b3d583b64125d2f9129c443bb37ff
9: b6c6a12b6e77944ed8baaaf6c242dae4
10: bfcc9a894a0604fc4b814b37d0a200a4
11: 5493cd16a1790a5fb9512b0c9d4c5dd1
12: 03f169e93e6143438e6dfe4ecb3cc9ed
13: 764b37fe611373c42d0b47154041f6eb
14: 1a56fbc1896b0ee6394136166281839e
15: ecc492eb17715de090c47345a98d98d3
16: 7974a6bec0fb44b6b8bbfc71aa3fbc74
17: 9ae01bef01748b12cc9f97a5f9f72cd6
18: 23fb22ee34d4272e4c9e005f1774515f
19: ec7e1a5d314da9a0ad45d53be5a7acae
20: 0bccdd8ee02cd42029e8162cd1c1197c
21: d6851ea43546216b95bcb81ced997102
22: 7ed9a38ea8bf0d86206569481442af44
23: 29b8416ddc63dbfcb987ab3c8198e9fe
24: 1f2062001df51a108ab25010f506716f
student@node-1:~$
```

NEW QUESTION: 73

□□□ □□□□□.

You must switch to the correct cluster/configuration context. Failure to do so may result in a zero score.

```
[candidate@node-1] $ kubectl config use-context sk8s
```

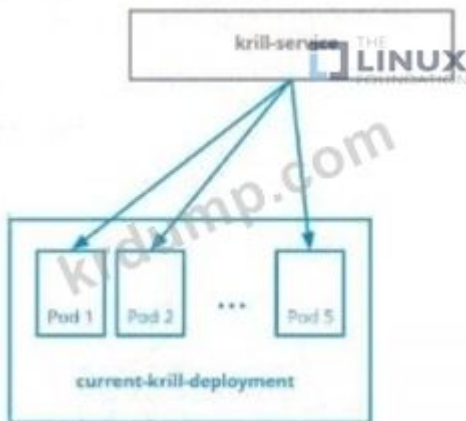


□□

□□□ □□□□□□ □□□□ □□□□□ □□ Canary □□□ □□□□□ □□□ □□□□□□.

□:

goshark □□□□□□□ krill-Service□□ □□□□ current-krill-deployment□□ □□□□ □□□
5□□ □□□ □□□□□□.

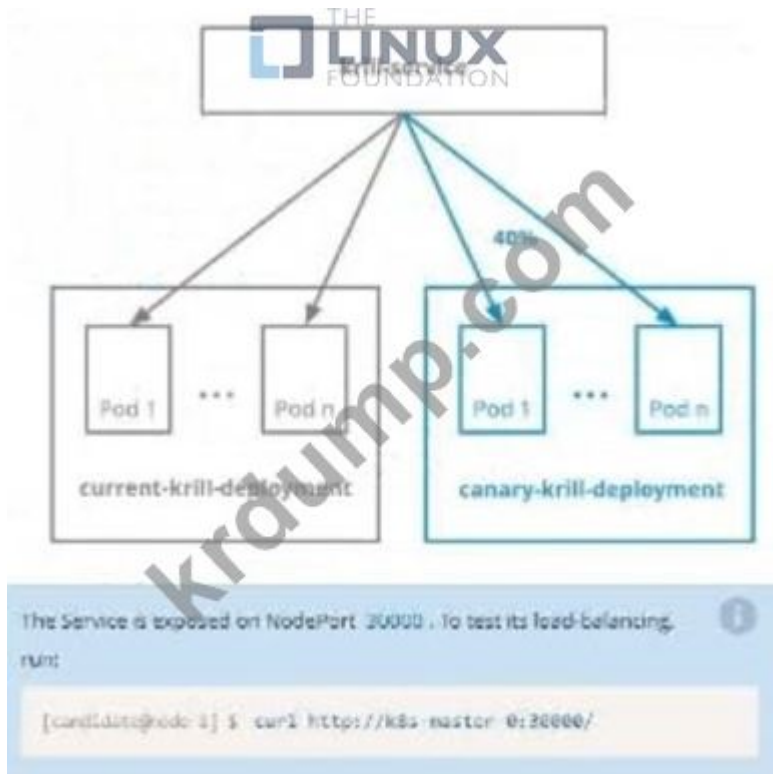


1) □□□ □□□□□□□□ canary-kill-deployment□□ □□□ □□□ □□□ □□□□□.

2) □□□ □□□ □□ □□□□□□.

- goshawk □□□□□□□□ □□□□□ Pod□ □□ □□ 10□□□□□.

-□□ □□□ □□□□□ 40%□ □□□□□ □□ □□ □□□ □□□□□□.



Answer:

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```
candidate@node-1:~/humane-storks$ kubectl scale deployment canary-krill-deployment --replicas 4 -n goshawk
deployment.apps/canary-krill-deployment scaled
candidate@node-1:~/humane-storks$ kubectl get deploy -n goshawk
NAME                READY   UP-TO-DATE   AVAILABLE   AGE
canary-krill-deployment  4/4     4            4           46s
current-krill-deployment  5/5     5            5           7h22m
candidate@node-1:~/humane-storks$ wget https://k8s.io/examples/
2022-09-24 11:43:51-- https://k8s.io/examples/admin/resource/quota-pod.yaml
solving k8s.io (k8s.io)... 34.107.204.206, 2600:1901:0:26f3::
connecting to k8s.io (k8s.io)[34.107.204.206]:443... connected.
HTTP request sent, awaiting response... 301 Moved Permanently
Location: https://kubernetes.io/examples/admin/resource/quota-pod.yaml [following]
2022-09-24 11:43:52-- https://kubernetes.io/examples/admin/resource/quota-pod.yaml
solving kubernetes.io (kubernetes.io)... 147.75.40.148
connecting to kubernetes.io (kubernetes.io)[147.75.40.148]:443... connected.
HTTP request sent, awaiting response... 200 OK
Content-Length: 90 [application/x-yaml]
Saving to: 'quota-pod.yaml'

quota-pod.yaml           100%[=====] 90 --.-KB/s   in 0s
2022-09-24 11:43:52 (15.0 MB/s) 'quota-pod.yaml' saved [90/90]
candidate@node-1:~/humane-storks$ vim quota-pod.yaml
```

```

File Edit View Terminal Tabs Help
2022-09-24 11:43:52 (15.0 MB/s) - 'quota-pod.yaml' saved [90/90]

candidate@node-1:~/humane-storks$ vim quota-pod.yaml
candidate@node-1:~/humane-storks$ kubectl create -f quota-pod.yaml
resourcequota/pod-demo created
candidate@node-1:~/humane-storks$ kubectl get quota -n go
No resources found in go namespace.
candidate@node-1:~/humane-storks$ kubectl get quota -n goshawk
NAME      AGE  REQUEST  LIMIT
pod-demo  19s  pods: 9/10
candidate@node-1:~/humane-storks$ curl http://k8s-master-0:30000/
current-krill-deployment-fb7c7995c-kvtjr
app.kubernetes.io/name=current
app.kubernetes.io/part-of=krill
pod-template-hash=fb7c7995c
candidate@node-1:~/humane-storks$ curl http://k8s-master-0:30000/
current-krill-deployment-fb7c7995c-4whfm
app.kubernetes.io/name=current
app.kubernetes.io/part-of=krill
pod-template-hash=fb7c7995c
candidate@node-1:~/humane-storks$ curl http://k8s-master-0:30000/
canary-krill-deployment-5f78fd4786-dfk7l
app.kubernetes.io/name=canary
app.kubernetes.io/part-of=krill
pod-template-hash=5f78fd4786
candidate@node-1:~/humane-storks$ curl http://k8s-master-0:30000/
canary-krill-deployment-5f78fd4786-z5zrt
app.kubernetes.io/name=canary
app.kubernetes.io/part-of=krill
pod-template-hash=5f78fd4786
candidate@node-1:~/humane-storks$ curl http://k8s-master-0:30000/
canary-krill-deployment-5f78fd4786-2774b
app.kubernetes.io/name=canary
app.kubernetes.io/part-of=krill
pod-template-hash=5f78fd4786
candidate@node-1:~/humane-storks$

```

NEW QUESTION: 74

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□□ □□□□ □□□□ ConfigMap□ □□□□ Pod□□ ConfigMap□ □□□□ □□□ □□□□

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□□□ □□□ □□□.

* □/□ □□ □□□□ another-config□□ ConfigMap□ □□□□: key4/value3

* nginx □□□□ □□□□ □□ □□□□□□ □□□□ nginx-configmap□□□ □□□ □□□ □□

□□ □□ □□□ □□ /also/a/path □□□□ □□□ □□□ □□□□□□.

Answer:

□□□:

```

student@node-1:~$ kubectl create configmap another-config --from-literal=key4=value3
configmap/another-config created
student@node-1:~$ kubectl get configmap
NAME          DATA      AGE
another-config 1          5s
student@node-1:~$ kubectl run nginx-configmap --image=nginx --dry-run=client -o yaml > nginx_conf
igmap.yml
student@node-1:~$ vim nginx_configmap.yml ^G
student@node-1:~$ mv nginx_configmap.yml nginx_configmap.yml
student@node-1:~$ vim nginx_co

```



Readme > Web Terminal

THE LINUX FOUNDATION

```

apiVersion: v1
kind: Pod
metadata:
  creationTimestamp: null
  labels:
    run: nginx-configmap
  name: nginx-configmap
spec:
  containers:
  - image: nginx
    name: nginx-configmap
    resources: {}
  dnsPolicy: ClusterFirst
  restartPolicy: Always
status: {}

```

"nginx_configmap.yml" 15L, 262C

1,1

All

Readme > Web Terminal

THE LINUX FOUNDATION

```

apiVersion: v1
kind: Pod
metadata:
  labels:
    run: nginx-configmap
  name: nginx-configmap
spec:
  containers:
  - image: nginx
    name: nginx-configmap
    volumeMounts:
    - name: myvol
      mountPath: /also/a/path
  volumes:
  - name: myvol
    configMap:
      name: another-config

```

13,6

All



```
~$ kubectl run nginx-configmap --image=nginx --dry-run=client
~$ vim nginx_configmap.yaml ^C
~$ mv nginx_configmap.yaml nginx_configmap.yaml
~$ vim nginx_configmap.yaml
~$ kubectl create f nginx_configmap.yaml
cify one of -f and -k
```


THE **LINUX** FOUNDATION

```
kubectl create -f nginx_configmap.yml
y one of -f and -k

mand "f nginx_configmap.yml"
e -h' for help and examples
kubectl create -f nginx_configmap.yml
ating "nginx_configmap.yml": error validating data: Vali
nown field "mountPath" in io.k8s.api.core.v1.Container;
rn validation off with --validate=false
vim nginx_configmap.yml
kubectl create -f nginx_configmap.yml
p created
```

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□□□(□□□):

1. □□ YAML□ □□□□□□□.

- '□□□□' □□□ '□□□□'□ □□□□ CPU□ □□□ □□ □□ '□□'□ '□□'□ □□□□□.
- '□□'□ □□□ □□ □□□□ □□□□ □□, '□□'□ □□□□ □□ □□□□ □□□□ □□□.

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: wordpress-deployment
spec:
  replicas: 3
  selector:
    matchLabels:
      app: wordpress
  template:
    metadata:
      labels:
        app: wordpress
    spec:
      containers:
        - name: wordpress
          image: wordpress:latest
          resources:
            requests:
              cpu: 250m
              memory: 512Mi
            limits:
              cpu: 500m
              memory: 1Gi
```

2. □□ □□□: - 'kubectl apply -f wordpress-deployment-yaml'□ □□□□ □□□□□ YAML □
□□ □□□□□. 3. □□□ □□□ □□□: - □□ □□□ □□□□ 'wordpress-quota.yaml'□□□
ResourceQuota YAML □□□ □□□□.

```
apiVersion: v1
kind: ResourceQuota
metadata:
  name: wordpress-quota
  namespace: wordpress
spec:
  limits:
    cpu: "2"
    memory: "4Gi"
```

4. □□□ □□□ □□: - 'kubectl apply -f wordpress-quota.yaml' □□□ □□□□ ResourceQuota
YAML □□□ □□□□□. 5. □□ □ □□□ □□: - 'kubectl get deployments wordpress-
deployment' □□□ □□□□ □□ □□□ □□□□ □□□□ □□□ □□ □□□ □□□□
□. - 'kubectl get resourcequotas -n wordpress' □□□ □□□□ □□□ □□□ □□□□ □□ □
□□ □□□□□. 6. □□□ □□ □□□: - 'wordpress' □□□□□□□□ □□□ □□□ □□□ □□
□□ □ □□ □□ Pod□ □□□ □□□. □□□ □□□□ □□□□ □□□□□.

NEW QUESTION: 76

MySQL □□□□□□□ □□□□ 'mysql-statefulset'□□□ □□ □□ □□□ □□□□. □□□□

□□ □□□□ 'mysql-pvc'□□ PersistentVolumeClaim(PVC)□ □□□□□. Pod □□□□□ □
□ □□□ PVC□ □□ □□□ Pod□ □□□□□□ □□□ □□□. □□, PVC□ □□□ □□□□
□□ □□ □□□□ □□□□ □□□□□ □□□□□ □□□.

Answer:

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□□□(□□□):

1. □□□□ □□□ □□:

- 'accessModes', 'reclaimPolicy', 'provisioner'□ □□ □□□ □□□ □□□ □□□□□
□□□□ □□□□ □□□ YAML □□□ □□□□.

```
apiVersion: storage.k8s.io/v1
kind: StorageClass
metadata:
  name: mysql-storage
provisioner: kubernetes.io/aws-ebs
parameters:
  type: gp2
  encrypted: "true"
```

- 'kubectl apply -f mysql-storage.yaml'□ □□□□ YAML □□□ □□□□□. 2.

PersistentVolumeClaim□ □□□□. - □□□□ □□□□ □□□□ PVC□ □□□□ □□□ □□
□ □□□ □□□□ PVC YAML □□□ □□□□.

```
apiVersion: v1
kind: PersistentVolumeClaim
metadata:
  name: mysql-pvc
spec:
  accessModes:
    - ReadWriteOnce
  resources:
    requests:
      storage: 1Gi
  storageClassName: mysql-storage
```

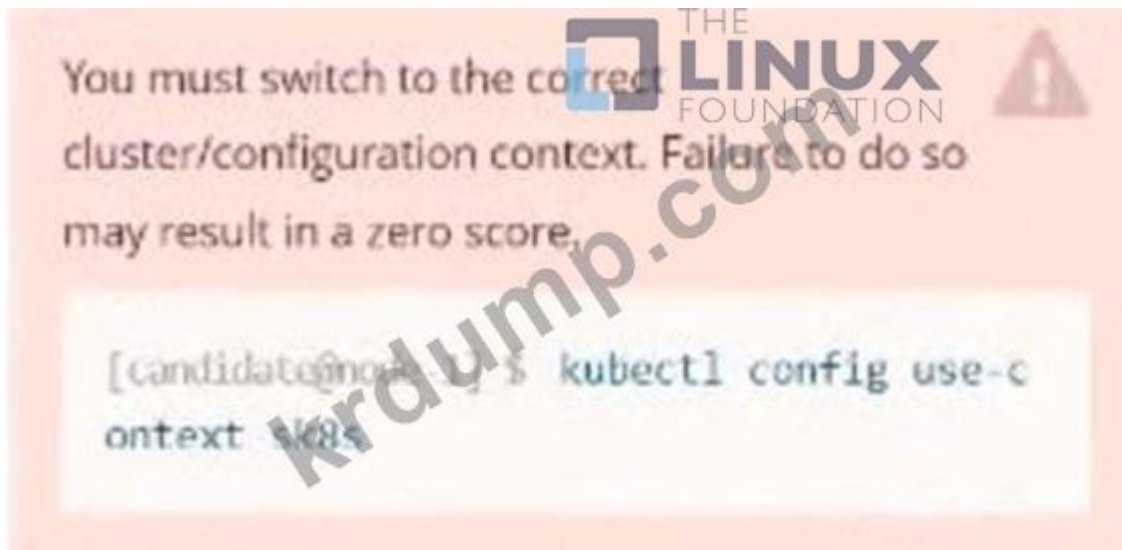
- 'kubectl apply -f mysql-pvc.yaml'□ □□□□ YAML □□□ □□□□□. 3. StatefulSet□ □□□

□□. - 'mysql-statefulset' YAML □□□ □□□□□□□. - 'spec-template-spec-containers-
volumeMounts'□ □□□□ 'mysql-pvc' □□□ □□□□□ □□□□□□. - 'spec-
volumeClaimTemplates' □□□ □□□□ StatefulSet□ □□□ □□ □□□□ □□□□□.

Special Discount: **KrDump**)

NEW QUESTION: 77

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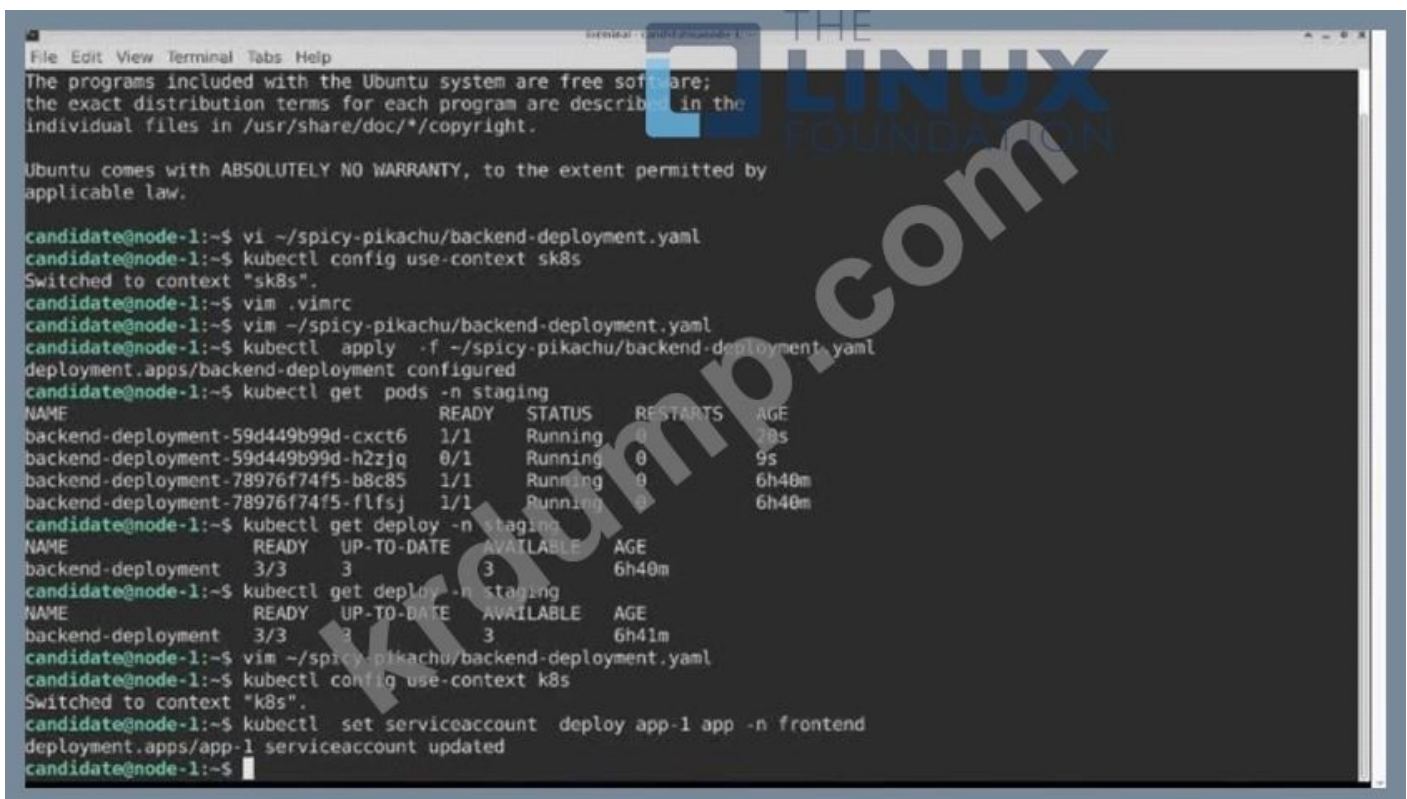


□:

□□□□□ □□□□□□□ □□ □-□ □□□□□□ □□ ServiceAccount □□ □□□□□.

Answer:

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NEW QUESTION: 78

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□□ □□(CRD)□ □□ □□□ □□□□ □□ □□□ □□□□□□□□?

Answer:

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□□□(□□□):

1. □□ □□□ □□ CRD□ □□□□.

- □□□ □□□ □□□ □□□□ □□ 'SecretValidator'□□ □□□ □□ □□□ □□(CRD)□ □
□□□□.

- □ CRD□□ □□ □□□ □□□ '□□' □□□ □□□□.

```
apiVersion: apiextensions.k8s.io/v1
```

```
kind: CustomResourceDefinition
```

```
metadata:
```

```
  name: secretvalidators.example.com
```

```
spec:
```

```
  group: example.com
```

```
  versions:
```

```
    - name: v1
```

```
      served: true
```

```
      storage: true
```

```
  scope: Namespaced
```

```
  names:
```

```
    plural: secretvalidators
```

```
    singular: secretvalidator
```

```
  kind: SecretValidator
```

```
  subresources:
```

```
    status: {}
```

```
spec:
```

```
  secretName: string
```

2. □□□ □□ □□ □□□ □□□□. - ValidatingWebhookConfiguration □□□□ □□□□. -

'SecretValidatoo CRD□ □□□□□ '□□'□ □□□□ CRD□ □□ □□□ □□ □□□ □□□□
□□ □□□□□. - □□□ □□□ □□□ □□ □□ □□□ □□□□□ 'failurePolicy'□ 'Fail'□ □

□□□□. - □□□□ API □□□ □□□□□ 'admissionReviewVersions'□ □□□□□. - □□□
□□□ □□□ □□□□ □□□ □□□□ □□□□ 'sideEffects'□ '□□'□□ □□□□□.


```

func(w http.ResponseWriter, r http.Request) { // 00 00 00 00 00 body, err :=
ioutil.ReadAll(r.Body) if err != nil { http.Error(w, fmt.Sprintf("00 00 00: %v" err),
http.StatusInternalServerError) return } // 00 00 00 0000 var admissionReview
metavl .AdmissionReview , err = deserializer.Decode(body, nil, &admissionReview) if err != nil
{ http.Error(w, fmt.Sprintf("00 00 000 00: %v", err), http.StatusInternalServerError)
return } // 00 00 00 0000 00 00 00 var admissionReview
metavl .AdmissionReview , err = deserializer.Decode(body, nil, &admissionReview) if err != nil
{ http.Error(w, fmt.Sprintf("00 00 000 00: %v", err), http.StatusInternalServerError)
return } // 000 000 00 , err = clientset.CoreV1
().Secrets(admissionReview.Request.Namespace).Get(context.TODO(),
secretValidator.Spec.SecretName, metavl .GetOptions{ }) if err nil { // 000 000 000 00
000 admissionReview.Response = &metavl .AdmissionResponse{ IJID:
admissionReview.Request.UID, Allowed: false, Result: &metavl .Status{ Status:
metavl .StatusFailure, Message: fmt.Sprintf("00 %s 000000 %s00 00 0 0000",
secretValidator.Spec.SecretName, admissionReview.Request.Namespace), } } } else { // 000
00000. 000 00000. admissionReview.Response =
&metavl .AdmissionResponse{ UID: admissionReview.Request.UID, Allowed: true, Result:
&metavl .Status{ Status: metavl .StatusSuccess, // 00 00 000 000000. response,
err := json.Marshal(admissionReview) if err nil { http.Error(w, fmt.Sprintf("00 00 000 00:
%v", err), http.StatusInternalServerError) return } // 000000 00 00
w.WriteHeader(http.StatusOK) w.Write(response) } // 00 844300 HTTP 00 00
http.ListenAndServeTLS(":8443", "/path/to/cert.pem", "/path/to/key.pem", nil) } // SecretValidator
CRD 00 00 SecretValidator struct { metav1 .TypeMeta metav1 .ObjectMeta Spec
SecretValidatorSpec } type SecretValidatorSpec struct {
SecretName string `json:"secretName"`
} 5. SecretValidator 000 00: - 000 000 0000000 'SecretValidator' 0000 00
0000. - 'spec.secretName' 0 000 000 0000 000000.

```

```

apiVersion: example.com/v1
kind: SecretValidator
metadata:
  name: secret-validator
spec:
  secretName: my-secret

```



6. 000 00 000000 00: - 000000 000 'SecretValidator' 0000 000 00
00000 000 00000. - 000 00 000 00000 00 0000 'SecretValidator'
0000 0000 000.

```

apiVersion: apps/v1
kind: Deployment
metadata:
  name: my-app-deployment
  annotations:
    example.com/secret-validator: secret-validator
spec:
  replicas: 3
  selector:
    matchLabels:
      app: my-app
  template:
    metadata:
      labels:
        app: my-app
    spec:
      containers:
        - name: my-app
          image: your-image-name:latest
      # ... (other deployment spec)

```



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'ValidatingWebhookConfiguration'□ '□□'□ □□□□□□ □□□. □ □□□□ □□□□ □□ □ □□□ □□□□ □□ □□□□ □□ □□□□ □□ □□ □□ □□ □□ □□ □□ □□□□.]

NEW QUESTION: 79

□□□ □□□ □□□□ Nginx □□□ □□□ □□□□ Kustomization □□□ □□□□. □ □□□ □□ □□□ □□□□ □□□□□ □□ CPLJ □□□ 500m□ □□□□□. □□□ □ □□□ □ □ □□□□ □□□□ □□□□ □□ □□ □□□□□. □□ □□□ □ □□ □□□□ □□ □□ □□□□ □□ □□ □□□□ □□ □□ □□□□ □□□□ □□□□ □□□□ □□□□ □□□□□ Kustomization □□□ □□□□□□ □□□ □□□ □□□.

Answer:

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□□□(□□□):

1. □□□ □□ □□ □□: □□ Kubernetes API □□□□ □□□□ □□□ □□□ □□ □□□□ □ □□ □□□ □□□□□. □□□ □□□ □□ □□ □□ □ □□□□□ □□□ □□□ □□□ □ □□ □□□□ □□□□.

2. Kustomization □□ □□□□: Kustomization □□□ □□□ □□□ □□□□ □□□□□ □□ □□□ □□□□□. □□ □□ □□□ 'spec-template-spec-containers[l.resources.requests.cpu'□ □□, □□□ □□ □□ □□□□□□□□. □□ □□□ □□□□□ □□□ □□ □□□ □□ □□ □ □□□ □□□ □ □□□□.

□ □□□ □□□ □□□□ □□□□. □□ □□□ ConfigMap□□ □□□□ □□□□□□ □□□
□□ □□□ □□□□□ □ □□□ □□□ □□□. □□□ □□□ □□ □□□ □□□□
ConfigMap□ □□□□ □□□ □□□□□□□.

Answer:

□□□ □□□ □□ □□□ □□□□ □□□□□.

□□:

□□□(□□□):

1. ConfigMap□ □□□□.

- 'kubectl create configmap' □□□□ □□□□ □□ □□□ □□□ ConfigMap□ □□□□□. □:
kubectl create configmap webapp-config -from-literal=config.json='{ "port": 8080, "database_url":
"mongodb://localhost:27017"}'

- 'config_json'□ □□ □□ □□□□ □□□ JSON □□□ □□ □□ □□□ □□□□.

2. □□ □□:

- □□ YAML □□□ □□□□ ConfigMap□ □□□□ □□□□□□□. □□□ □□□ □□□□.

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: my-webapp
spec:
  replicas: 3
  selector:
    matchLabels:
      app: my-webapp
  template:
    metadata:
      labels:
        app: my-webapp
    spec:
      containers:
        - name: my-webapp
          image: my-webapp-image:latest
          ports:
            - containerPort: 8080
          volumeMounts:
            - name: config-volume
              mountPath: /etc/webapp/config
      volumes:
        - name: config-volume
          configMap:
            name: webapp-config
      restartPolicy: Always
```

- '/etc/webapp/config'□□ □□ □□□ □□□ □□□□□□ □□□ □□□□□□. 3. □□ □□ □

□: - 'kubectl apply -f deployment_yamr'□ □□□□ □□□□□ □□□ □□□□□. 4. □□□□

□□: - 'kubectl logs -f'□ □□□□ □□ □□□ □□□□□. □□□□□□□ ConfigMap□□ □□

□□ □□□□ □□ □ □ □□□□. 5. □□ □□□□: - □□ □□□□ □□ □□□□ □□□

kubectl patch configmap webapp-config --patch '{"data": {"config.json": "{ \"port\": 8081, \"database_url\": \"mongodb://newhost:27017\"}"}}'

- □□□ □□ ConfigMap□ □□□□□□ □□□ □□ □□□□□ □□□□□ □□□□ □□ □□
□□ □□□ □□□□□□ □□□ □□□□□ □□□□□□□.

NEW QUESTION: 81

'nginx-deployment' 是一个部署 Nginx 的 Deployment。3 个副本的 Nginx 部署。3 个副本的 ConfigMap 用于配置 Nginx。每个副本的 ConfigMap 用于配置 Nginx。每个副本的 ConfigMap 用于配置 Nginx。

Answer:

1. 创建 ConfigMap。

2. 应用 ConfigMap。

3. 部署 Nginx。

1. ConfigMap 用于配置 Nginx。

```
apiVersion: v1
kind: ConfigMap
metadata:
  name: nginx-config
data:
  nginx_conf: |
    worker_processes 1;
    events {
      worker_connections 1024;
    }
    http {
      server {
        listen 80;
        location / {
          root /usr/share/nginx/html;
          index index.html index.htm;
        }
      }
    }
  }
```

2. ConfigMap 用于配置 Nginx。bash kubectl apply -f nginx-config.yaml 3. ConfigMap 用于配置 Nginx。每个副本的 ConfigMap 用于配置 Nginx。

```

apiVersion: apps/v1
kind: Deployment
metadata:
  name: nginx-deployment
spec:
  replicas: 3
  selector:
    matchLabels:
      app: nginx
  template:
    metadata:
      labels:
        app: nginx
    spec:
      containers:
      - name: nginx
        image: nginx:latest
        volumeMounts:
        - name: nginx-config-volume
          mountPath: /etc/nginx/conf.d
      volumes:
      - name: nginx-config-volume
        configMap:
          name: nginx-config

```



4. `bash kubectl apply -f nginx-deployment.yaml` 5. `bash kubectl get deployments nginx-deployment` `bash kubectl get configmaps 'nginx-config'` 6. `bash kubectl edit configmap nginx-config` `bash kubectl exec -it -- bash -c 'cat /etc/nginx/conf.d/nginx_conf'`

NEW QUESTION: 82

Kubernetes Liveness probes are used to check if a pod is running and healthy. If a pod fails a liveness probe, Kubernetes will restart the pod. Which of the following is a valid liveness probe configuration?

Answer:

1. `livenessProbe: httpGet: path: /healthz port: 8080`

```
apiVersion: apps/v1
kind: Deployment
metadata:
```

```
name: my-service-deployment
spec:
  replicas: 3
  selector:
    matchLabels:
      app: my-service
  template:
    metadata:
      labels:
        app: my-service
    spec:
      containers:
        - name: my-service
          image: my-service-image:latest
          livenessProbe:
            tcpSocket:
              port: 8080 # Port your service listens on
            initialDelaySeconds: 15
            periodSeconds: 20
            failureThreshold: 3
            successThreshold: 1
```

```
- 'my-service-image:latest' □ □□ □□□ □□□□. - '8080' □ □□□ □□□□ □□□ □  
□□□□. - □□□ □□ □□□ □□□ □□□□□. 2. □□ □□ □□□□ □□□□ □□□□□.
```

```
apiVersion: v1
```

kind: Service

```
metadata:
```

```
name: my-service
```

spec:

selector:

```
app: my-service
```

```
ports:
```

```
- protocol: TCP
```

```
port: 80
```

```
targetPort: 8080 # Same port as the liveness probe
```

type: ☒ LoadBalancer ☐ Node

```
healthCheckNodePort: 30001 # Optional: for external health checks
```

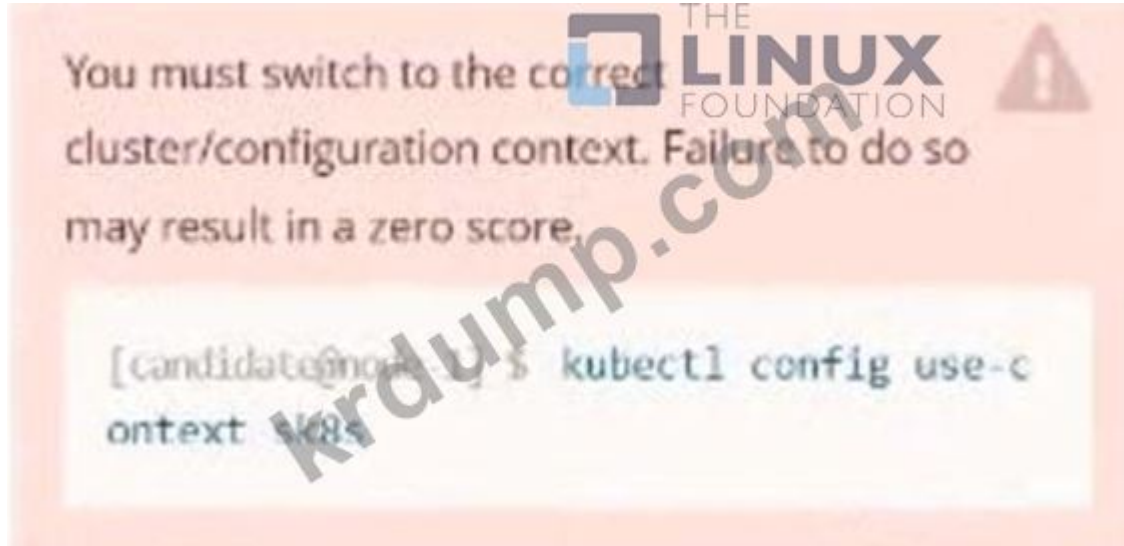
```
- 'healthCheckNodePort' □ □ □ □ □ □ □ , □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ .
```

3. YAML □□ □□: - 'kubectl apply -f deployment_yamr' □ 'kubectl apply -f service.yaml' □ □□
 □□ □□ □ □□□□ □□□□□. 4. □□ □□ □□: - □□□ □□□□ □□ □□□ □□□ □□
 □□□. - □□□ □□□ □□□ □□ □□ □□□□ □□ □□□□□ □□□. - 'kubectl get pods -
 app=my-service' □ □□□□ □□ □□□ □□□ □□ □□□□□. 5. □□ □□: - □ □□□ □□ □

□ □□ □□□□ 'exec' □□ 'httpGet' □□□□ □□□□□. - 'failureThreshold' □
'successThreshold'□ □□□□ □□□□ □□□□ □□□□□. - □□□ □□□□ □□□ □□□
□□□□ □□□□ □□ □□□ □□ □□□ 'readinessProbe'□ □□□□□.

NEW QUESTION: 83

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□:

1) □□ □□□□□□□□ □□ □□ □□ □□□□ app-secret□□□ □□□ □□□ □□□□.

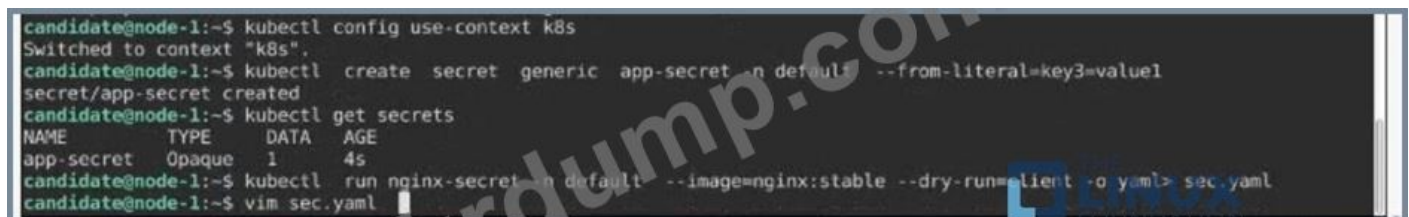
□3: □1

2) □□ □□□□□□□□ nginx secret□□□ □□□ Pod□ □□□□. nginx:stable □□□□ □□□
□ □□ □□□□□ □□□□□.

□□ □3□ □□ □□□□ BEST_VARIABLE□□□ □□ □□□ □□□□□.

Answer:

□□□:



```

File Edit View Terminal Tabs Help
apiVersion: v1
kind: Pod
metadata:
  creationTimestamp: null
  labels:
    run: nginx-secret
  name: nginx-secret
  namespace: default
spec:
  containers:
  - image: nginx:stable
    name: nginx-secret
    env:
    - name: BEST_VARIABLE
      valueFrom:
        secretKeyRef:
          name: app-secret
          key: key3

```

Switched to context "k8s".

```

candidate@node-1:~$ kubectl create secret generic app-secret -n default --from-literal=key3=value1
secret/app-secret created
candidate@node-1:~$ kubectl get secrets
NAME          TYPE      DATA   AGE
app-secret    Opaque    1       4s
candidate@node-1:~$ kubectl run nginx-secret -n default --image=nginx:stable --dry-run=client -o yaml > sec.yaml
candidate@node-1:~$ vim sec.yaml
candidate@node-1:~$ kubectl create -f sec.yaml
pod/nginx-secret created
candidate@node-1:~$ kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
nginx-secret  1/1     Running   0          7s
candidate@node-1:~$

```

NEW QUESTION: 84

'my-app' is a service account in the 'default' namespace. You want to create a pod that runs the 'my-app' container and uses the 'my-app' service account. Which of the following is the correct way to create the pod?

Answer:

- 1. `apiVersion: v1`
- 2. `kind: ServiceAccount`
- 3. `metadata:`
- 4. `name: my-app-sa`

```

apiVersion: v1
kind: ServiceAccount
metadata:
  name: my-app-sa

```

1. `'kubectl apply -f my-app-sa.yaml'` is the correct way to create the pod. 2. `apiVersion: v1` is the correct way to specify the API version.

□□□ □ □□□□.

```
apiVersion: rbac.authorization.k8s.io/v1
kind: Role
metadata:
  name: my-app-reader
  namespace: default
rules:
- apiGroups: ["apps"]
  resources: ["deployments"]
  verbs: ["get", "list", "watch"]
- apiGroups: ["core"]
  resources: ["secrets"]
  verbs: ["get"]
```

- 'kubectl apply -f my-app-reader.yaml' □ □□□ □ YAML □□□ □□□□□. 3. □□□ □□□ □□□ □□□□□□. - 'my-app-reader' □□□ 'my-app-sa' □□□ □□□ □□□□ RoleBinding □ □□□□.

```
apiVersion: rbac.authorization.k8s.io/v1
kind: RoleBinding
metadata:
  name: my-app-sa-binding
  namespace: default
roleRef:
  apiGroup: rbac.authorization.k8s.io
  kind: Role
  name: my-app-reader
subjects:
- kind: ServiceAccount
  name: my-app-sa
  namespace: default
```

- 'kubectl apply -f my-app-sa-binding.yaml' □ □□□ □ YAML □□□ □□□□□. 4. □□□ □ □□□□□□. - □ □□□ □□□ □□□□□ 'my-app' □□□ □□□□□□□.

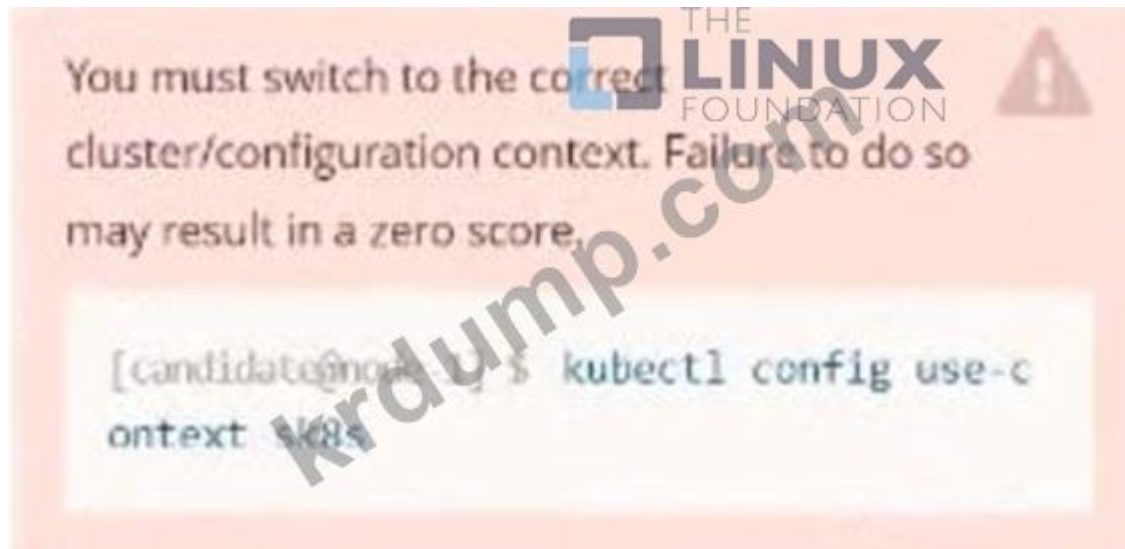
```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: my-app
spec:
  template:
    spec:
      serviceAccountName: my-app-sa
```

- 'kubectl apply -f my-app.yaml' □ □□□□ □□□□□ □□ □□□ □□□□□. 5. □□: - 'my-app' □□ □□ □□□ □□□ □□□ □□□□ □□ □□□□□. 'kubectl get pods -l app=my-app -o wide' □ □□□□ □□ □□ □□□ □□□ □ □□□□□. 6. □□ □□□□ □□ □□ □□: - □□ □ □□ □□□□ □□□□□□ □□□□ □□□□□ □□□ □□□□ □□□□. - □□ □□□ □□(□: □□ □□, □□ □) □ □□□□ □□ □□□□ □□□ □□□□□□□□. -

Kubernetes □□ □□□(□: OAuth2 □□ OpenID Connect)□ □□□□ □□□□ □□□□ □□ □□□□□. - □□□ □□□ ID□ □□□□ □□□ □□□ □□□□□. □□: □ □□□□□ □ □□ □□□ □□□ RBAC□ □□ □□□ □□□□□. □□ □□□□□□□ □□ □□ □□ □□ □□□ □□□ □□ □□□ □□□□ □□ □□ □□□ RBAC □□□ □□□□ □ □□□□□.]

NEW QUESTION: 85

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□□□□□□ quetzal□□ □□ □□ broker-deployment□□ □□ □□□ □□□□□ □□□□□ □□□.

1) □□□ ID 30000□□ □□□□

2) □□ □□□ □□□□ □□□□.

□□□ □□ □□□□□ □□□ □□ □□□□ □□ □ □□□□.

`~/daring-mock-siv/broker-deployment.yaml`

Answer:

□□□:

```
candidate@node-1:~$ kubect. config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ vim
```

```
File Edit View Terminal Tabs Help
containers:
  - name: broker
    image: redis:alpine
    ports:
      - containerPort: 6379
    securityContext:
      runAsUser: 30000
      privileged: false

candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ vim ~/daring-moccasin/broker-deployment.yaml
candidate@node-1:~$ kubectl apply -f ~/daring-moccasin/broker-deployment.yaml
deployment.apps/broker-deployment configured
candidate@node-1:~$ kubectl get pods -n quetzal
NAME                                READY   STATUS    RESTARTS   AGE
broker-deployment-65446d6d94-868p6  1/1     Running   0           30s
broker-deployment-65446d6d94-8dn7l  1/1     Running   0           32s
broker-deployment-65446d6d94-p4h4l  1/1     Running   0           31s
candidate@node-1:~$ kubectl get deploy -n quetzal
NAME                READY   UP-TO-DATE   AVAILABLE   AGE
broker-deployment  3/3     3             3           7h3m
candidate@node-1:~$
```

NEW QUESTION: 86

□□□□:

Set configuration context:

```
[student@node-1] $ kubectl config
use-context k8s
```

THE
LINUX
FOUNDATION

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□□□□□□.

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kdsn00101 □□□□□□□ □□ □□□ kdsn00101-deployment□□ □□□ □□□□□. □□□
□□ □□□□□.

* □□□ □□□ □□ Pod□ □□□□ □□ Pod □□□ □□□□□□ func=webFrontEnd □/□ □
□□□ □□□□□.

* □□□ 4□ □□

□□□□, kdsn00101 □□□□□□□ □□□ □□□□ □□□□ □□□□□.

* TCP □□ 8080□□ □□□□ □□□□□.

*□ kdsn00101-deployment □□□ □□ □□□ □□□ □□□□□.

* NodePort □□□□□.

* □□□□ □□□ □□□ □□□□□

A. □□□:

```
student@node-1:~$ kubectl edit deployment kdsn00101-deployment -n kdsn00101
```

Readme Web Terminal THE LINUX FOUNDATION

Please edit the object below. Lines beginning with a '#' will be ignored,
and an empty file will abort the edit. If an error occurs while editing this file will be
reopened with the relevant failures.

```
#
apiVersion: apps/v1
kind: Deployment
metadata:
  annotations:
    deployment.kubernetes.io/revision: "1"
    creationTimestamp: "2020-10-09T08:50:39Z"
    generation: 1
  labels:
    app: nginx
  name: kdsn00101-deployment
  namespace: kdsn00101
  resourceVersion: "4786"
  selfLink: /apis/apps/v1/namespaces/kdsn00101/deployments/kdsn00101-deployment
  uid: 8d3ace00-7761-4189-ba10-fbc7f6c3116f
spec:
  progressDeadlineSeconds: 600
  replicas: 1
  revisionHistoryLimit: 10
  selector:
    matchLabels:
      app: nginx
  strategy:
    type: RollingUpdate
  template:
    metadata:
      labels:
        app: nginx
    spec:
      containers:
      - image: nginx
        name: nginx
        ports:
        - containerPort: 80
        resources: {}
      restartPolicy: Always
```

1,1 Top

```
Readme Web Terminal THE LINUX FOUNDATION

uid: 8d3ace00-7761-4189-ba10-fbc676c311bf
spec:
  progressDeadlineSeconds: 600
  replicas: 4
  revisionHistoryLimit: 10
  selector:
    matchLabels:
      app: nginx
  strategy:
    rollingUpdate:
      maxSurge: 25%
      maxUnavailable: 25%
    type: RollingUpdate
  template:
    metadata:
      creationTimestamp: null
      labels:
        app: nginx
        func: webFrontEnd
    spec:
      containers:
      - image: nginx:latest
        imagePullPolicy: Always
        name: nginx
        ports:
        - containerPort: 80

student@node-1:~$ kubectl edit deployment kdsn00101-deployment -n kdsn00101
deployment.apps/kdsn00101-deployment edited
student@node-1:~$ kubectl get deployment kdsn00101-deployment -n kdsn00101
NAME                    READY   UP-TO-DATE   AVAILABLE   AGE
kdsn00101-deployment    4/4     4            4           7h17m
student@node-1:~$ kubectl expose deployment kdsn00101-deployment -n kdsn00101 --type NodePort --
port 8080 --name cherry
service/cherry exposed
```

B. □□□:

```
student@node-1:~$ kubectl edit deployment kdsn00101-deployment -n kdsn00101

Readme Web Terminal THE LINUX FOUNDATION

Please edit the object below. Lines beginning with a '#' will be ignored,
and an empty file will abort the edit. If an error occurs while saving this file will be
# reopened with the relevant failures.
#
apiVersion: apps/v1
kind: Deployment
metadata:
  annotations:
    deployment.kubernetes.io/revision: "1"
    creationTimestamp: "2020-10-09T09:10:39Z"
    generation: 1
  labels:
    app: nginx
    name: kdsn00101-deployment
    namespace: kdsn00101
  resourceVersion: "4786"
  selfLink: /apis/apps/v1/namespaces/kdsn00101/deployments/kdsn00101-deployment
  uid: 8d3ace00-7761-4189-ba10-fbc676c311bf
spec:
  progressDeadlineSeconds: 600
  replicas: 4
  revisionHistoryLimit: 10
  selector:
    matchLabels:
      app: nginx
  strategy:
    rollingUpdate:
      maxSurge: 25%
      maxUnavailable: 25%
    type: RollingUpdate
  template:
    metadata:
      creationTimestamp: null
      labels:
        app: nginx
        func: webFrontEnd
    spec:
      containers:
      - image: nginx:latest
        imagePullPolicy: Always
        name: nginx
        ports:
        - containerPort: 80

"/tmp/kubectl-edit-d4y5r.yaml" 70L, 1957C 1,1 Top
```

Readme
Web Terminal


THE **LINUX** FOUNDATION

```

uid: 8d3ace00-7761-4189-ba10-fbc676c311bf
spec:
  progressDeadlineSeconds: 600
  replicas: 4
  revisionHistoryLimit: 10
  selector:
    matchLabels:
      app: nginx
  strategy:
    rollingUpdate:
      maxSurge: 25%
      maxUnavailable: 25%
    type: RollingUpdate
  template:
    metadata:
      creationTimestamp: null
      labels:
        app: nginx
        func: webFrontEnd
    spec:
      containers:
      - image: nginx:latest
        imagePullPolicy: Always
        name: nginx
        ports:
        - containerPort: 80

```

Answer: A ([LEAVE A REPLY](#))

NEW QUESTION: 87

'web-app'□□□ □□□ □□ □□ SecurityContext□ □□□ □□□□□□□ □□□□ □□□. □
 □□□□□□ 'data'□ □□□□ □□ hostPath □□□ □□□□ □ □□□ □□, □□ UID□ □□
 □□□ □□ □□□□ □□□ □ □□□ □□□. □□□□□□□ □□□ □□□ □□□ □□□□
 □□□□□ □□ □□□□ Securitycontext□ □□□□ □□□□.

Answer:

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□□:

□□□(□□□):

1. □□ YAML□□ Securitycontext□ □□□□□.

- □□□□□□ □□□□□ □□ 'spec-template.spec.containers' □□ □□ 'securityContext' □
 □□ □□□□.

- 'runAsUser' □□□ □□□ □□□ □□ IJID(□: 1000)□ □□□□□.

- □□□□□ □□□ CUID□ □□ □□□ □□□□ □□ □□□□□ 'allowPrivilegeEscalation
 false'□ □□□□□.

- 'readOnly: false'□ 'hostPath' □□ □□□'□ □□□□ □□□□□□□ □□□□ □□□□□ □
 □ □ □ □□□ □□□□□.

- 'hostPath' □□□□ '□□'□ □□□□ □□ □□(□: './data')□ □□□□□ □□ □□□□ □□ □
 □□ □□□□□.

[illegible]

Answer:

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```
student@node-1:~$ kubectl run appl --image=lfcncf/arg-output --dry-run=client -o yaml > /opt/KD
PD00101/pod1.yml
student@node-1:~$ vim /opt/KDPD00101/pod1.yml
```



```

apiVersion: v1
kind: Pod
metadata:
  labels:
    run: appl
    name: appl
spec:
  containers:
  - image: lfcncf/arg-output
    name: appl
    args: ["--lines", "56", "--f"]

```

11,30

All

pod/appl created

student@node-1:~\$ kubectl get pods

NAME	READY	STATUS	RESTARTS	AGE
appl	0/1	ContainerCreating	0	5s
counter	1/1	Running	0	4m44s
liveness-http	1/1	Running	0	6h50m
nginx-101	1/1	Running	0	6h51m
nginx-configmap	1/1	Running	0	6m21s
nginx-secret	1/1	Running	0	11m
poller	1/1	Running	0	6h51m

student@node-1:~\$ kubectl get pods

NAME	READY	STATUS	RESTARTS	AGE
appl	1/1	Running	0	26s
counter	1/1	Running	0	5m5s
liveness-http	1/1	Running	0	6h50m
nginx-101	1/1	Running	0	6h51m
nginx-configmap	1/1	Running	0	6m42s
nginx-secret	1/1	Running	0	12m
poller	1/1	Running	0	6h51m

student@node-1:~\$ kubectl delete pod appl

pod "appl" deleted

student@node-1:~\$ vim /opt/KDPD00101/pod1.yml

```
Readme Web Terminal L

nginx-configmap 1/1 Running 0 6m
nginx-secret 1/1 Running 0 11s
poller 1/1 Running 0 6h
student@node-1:~$ kubectl get pods
NAME READY STATUS RESTARTS AGE
app1 1/1 Running 0 26s
counter 1/1 Running 0 5m5s
liveness-http 1/1 Running 0 6h50m
nginx-101 1/1 Running 0 6h51m
nginx-configmap 1/1 Running 0 6m42s
nginx-secret 1/1 Running 0 12m
poller 1/1 Running 0 6h51m
student@node-1:~$ kubectl delete pod app1
pod "app1" deleted
student@node-1:~$ vim /opt/KDPD00101/pod1.yml
student@node-1:~$ kubectl create -f /opt/KDPD00101/pod1.yml
pod/app1 created
student@node-1:~$ kubectl get pods
NAME READY STATUS RESTARTS AGE
app1 1/1 Running 0 20s
counter 1/1 Running 0 6m57s
liveness-http 1/1 Running 0 6h52m
nginx-101 1/1 Running 0 6h53m
nginx-configmap 1/1 Running 0 8m34s
nginx-secret 1/1 Running 0 14m
poller 1/1 Running 0 6h53m
student@node-1:~$ kubectl get pod app1 -o json >
```

```
Readme Web Terminal THE LINUX FOUNDATION

poller 1/1 Running 0 6h51m
student@node-1:~$ kubectl get pods
NAME READY STATUS RESTARTS AGE
app1 1/1 Running 0 26s
counter 1/1 Running 0 5m5s
liveness-http 1/1 Running 0 6h50m
nginx-101 1/1 Running 0 6h51m
nginx-configmap 1/1 Running 0 6m42s
nginx-secret 1/1 Running 0 12m
poller 1/1 Running 0 6h51m
student@node-1:~$ kubectl delete pod app1
pod "app1" deleted
student@node-1:~$ vim /opt/KDPD00101/pod1.yml
student@node-1:~$ kubectl create -f /opt/KDPD00101/pod1.yml
pod/app1 created
student@node-1:~$ kubectl get pods
NAME READY STATUS RESTARTS AGE
app1 1/1 Running 0 20s
counter 1/1 Running 0 6m57s
liveness-http 1/1 Running 0 6h52m
nginx-101 1/1 Running 0 6h53m
nginx-configmap 1/1 Running 0 8m34s
nginx-secret 1/1 Running 0 14m
poller 1/1 Running 0 6h53m
student@node-1:~$ kubectl get pod app1 -o json > /opt/KDPD00101/out1.json
student@node-1:~$
student@node-1:~$
```

NEW QUESTION: 89

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 □□ □□□□ □□□□ ConfigMap□ □□□□ Pod□□ ConfigMap□ □□□□ □□□ □□□□
 □.
 □
 □□□ □□□ □□□.
 * □/□ □□ □□□□ another-config□□ ConfigMap□ □□□□: key4/value3
 * nginx □□□□ □□□□ □□ □□□□□ □□□□ nginx-configmap□□□ □□□ □□□ □□
 □□ □□ □□□ □□ /also/a/path □□□□ □□□ □□□ □□□□□□.

Answer:

□□□:

```

student@node-1:~$ kubectl create configmap another-config --from-literal=key4=value3
configmap/another-config created
student@node-1:~$ kubectl get configmap
NAME          DATA   AGE
another-config  1       5s
student@node-1:~$ kubectl run nginx-configmap --image=nginx --dry-run=client -o yaml > nginx_conf
igmap.yml
student@node-1:~$ vim nginx_configmap.yml ^C
student@node-1:~$ mv nginx_configmap.yml nginx_configmap.yml
student@node-1:~$ vim nginx_co
  
```

```

apiVersion: v1
kind: Pod
metadata:
  creationTimestamp: null
  labels:
    run: nginx-configmap
  name: nginx-configmap
spec:
  containers:
  - image: nginx
    name: nginx-configmap
    resources: {}
  dnsPolicy: ClusterFirst
  restartPolicy: Always
status: {}

```

"nginx_configmap.yml" 15L, 262C

1,1

All

```

apiVersion: v1
kind: Pod
metadata:
  labels:
    run: nginx-configmap
  name: nginx-configmap
spec:
  containers:
  - image: nginx
    name: nginx-configmap
    volumeMounts:
    - name: myvol
      mountPath: /also/a/path
  volumes:
  - name: myvol
    configMap:
      name: another-config

```

13,6

All

```

student@node-1:~$ kubectl create configmap another-config --from-literal=key4=value3
configmap/another-config created
student@node-1:~$ kubectl get configmap
NAME          DATA   AGE
another-config 1       5s
student@node-1:~$ kubectl run nginx-configmap --image=nginx --dry-run=client -o yaml > nginx_conf
igmap.yml
student@node-1:~$ vim nginx_configmap.yml ^C
student@node-1:~$ mv nginx_configmap.yml nginx_configmap.yml
student@node-1:~$ vim nginx_configmap.yml
student@node-1:~$

```

```

student@node-1:~$ kubectl run nginx-configmap --image=nginx --dry-run=client -o yaml > nginx_conf
igmap.yml
student@node-1:~$ vim nginx_configmap.yml ^C
student@node-1:~$ mv nginx_configmap.yml nginx_configmap.yaml
student@node-1:~$ vim nginx_configmap.yaml
student@node-1:~$ kubectl create f nginx_configmap.yaml
Error: must specify one of -f and -k

error: unknown command "f nginx_configmap.yaml"
See 'kubectl create -h' for help and examples
student@node-1:~$ kubectl create -f nginx_configmap.yaml
error: error validating "nginx_configmap.yaml": error validating data: ValidationError(Pod.spec.c
ontainers[1]): unknown field "mountPath" in io.k8s.api.core.v1.Container; if you choose to ignor
e these errors, turn validation off with --validate=false
student@node-1:~$ vim nginx_configmap.yaml

```

Readme Web Terminal THE LINUX FOUNDATION

```

student@node-1:~$ kubectl create f nginx_configmap.yaml
Error: must specify one of -f and -k

error: unknown command "f nginx_configmap.yaml"
See 'kubectl create -h' for help and examples
student@node-1:~$ kubectl create -f nginx_configmap.yaml
error: error validating "nginx_configmap.yaml": error validating data: ValidationError(Pod.spec.c
ontainers[1]): unknown field "mountPath" in io.k8s.api.core.v1.Container; if you choose to ignor
e these errors, turn validation off with --validate=false
student@node-1:~$ vim nginx_configmap.yaml
student@node-1:~$ kubectl create -f nginx_configmap.yaml
pod/nginx-configmap created
student@node-1:~$ kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
liveness-http  1/1     Running   0           6h44m
nginx-101     1/1     Running   0           6h45m
nginx-configmap 0/1     ContainerCreating 0           5s
nginx-secret   1/1     Running   0           5m39s
poller        1/1     Running   0           6h44m
student@node-1:~$ kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
liveness-http  1/1     Running   0           6h44m
nginx-101     1/1     Running   0           6h45m
nginx-configmap 1/1     Running   0           8s
nginx-secret   1/1     Running   0           5m42s
poller        1/1     Running   0           6h45m
student@node-1:~$

```

NEW QUESTION: 90

THE LINUX FOUNDATION

You must switch to the correct cluster/configuration context. Failure to do so may result in a zero score.

[candidate@node-1] \$ kubectl config use-c
ontext sk8s

□:

1) □□ □□□□□□□□ □□ □□ □-□ □□ □□□□ app-secret□□□ □□□ □□□□ □□□□.

3: 1

2) Create a Pod using nginx:stable image. The Pod should have an environment variable named BEST_VARIABLE with a value from the secret key3.

The Pod should be named nginx-secret.

Answer:

1. Create a secret named app-secret.

2. Create a Pod named nginx-secret.

3. Verify the Pod is running.

```
candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ kubectl create secret generic app-secret -n default --from-literal=key3=value1
secret/app-secret created
candidate@node-1:~$ kubectl get secrets
NAME      TYPE      DATA      AGE
app-secret  Opaque    1          4s
candidate@node-1:~$ kubectl run nginx-secret -n default --image=nginx:stable --dry-run=client -o yaml > sec.yaml
candidate@node-1:~$ vim sec.yaml
```

4. Verify the Pod is running.

```
File Edit View Terminal Tabs Help
piVersion: v1
kind: Pod
metadata:
  creationTimestamp: null
  labels:
    run: nginx-secret
  name: nginx-secret
  namespace: default
spec:
  containers:
  - image: nginx:stable
    name: nginx-secret
    env:
    - name: BEST_VARIABLE
      valueFrom:
        secretKeyRef:
          name: app-secret
          key: key3
```

5. Verify the Pod is running.

```
candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ kubectl create secret generic app-secret -n default --from-literal=key3=value1
secret/app-secret created
candidate@node-1:~$ kubectl get secrets
NAME      TYPE      DATA      AGE
app-secret  Opaque    1          4s
candidate@node-1:~$ kubectl run nginx-secret -n default --image=nginx:stable --dry-run=client -o yaml > sec.yaml
candidate@node-1:~$ vim sec.yaml
candidate@node-1:~$ kubectl create -f sec.yaml
pod/nginx-secret created
candidate@node-1:~$ kubectl get pods
NAME      READY   STATUS    RESTARTS   AGE
nginx-secret  1/1     Running   0          7s
candidate@node-1:~$
```

NEW QUESTION: 91

1. Create a Pod using nginx:stable image.

You must switch to the correct cluster/configuration context. Failure to do so may result in a zero score.

```
[candidate@node-1] $ kubectl config use-c
ontext k8s
```

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craytish □□□□□□□ □□ nosql□□□ □□□ □□□ □□□□ □□□□ □□□□ □□□□ □□□□.

Pod□ □□□ □□ □□□ nosql □□□ □□□□□□□.

1) □□□□□ 160M□ □□□□ □□□□□.

2) crayfah □□□□□□□ □□□ □□ □□□ □□ □□□ □□□□ □□□□ □□□□□.

• The nosql Deployment's manifest file can be found at
~/chief-cardinal/nosql.yaml.

Answer:

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```
candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ vim ~/chief-cardinal/nosql.yaml
```

```
File Edit View Terminal Tabs Help
---
apiVersion: apps/v1
kind: Deployment
metadata:
  name: nosql
  namespace: crayfish
  labels:
    app.kubernetes.io/name: nosql
    app.kubernetes.io/component: backend
spec:
  selector:
    matchLabels:
      app.kubernetes.io/name: nosql
      app.kubernetes.io/component: backend
  replicas: 1
  template:
    metadata:
      labels:
        app.kubernetes.io/name: nosql
        app.kubernetes.io/component: backend
    spec:
      containers:
        - name: mongo
          image: mongo:4.2
          args:
            - --bind ip
            - 0.0.0.0
          ports:
            - containerPort: 27017
```

-- INSERT --

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All

```
File Edit View Terminal Tabs Help
- name: mongo
  image: mongo:4.2
  args:
    - --bind ip
    - 0.0.0.0
  ports:
    - containerPort: 27017
  resources:
    requests:
      memory: "160Mi"
    limits:
      memory: "320Mi"

:WQ
File Edit View Terminal Tabs Help
To: <any> (traffic not restricted by destination)
Policy Types: Ingress, Egress

name: default-deny
namespace: ckad00018
created on: 2022-09-24 04:27:37 +0000 UTC
labels: <none>
annotations: <none>
spec:
  PodSelector: <none> (Allowing the specific traffic to all pods in this namespace)
  Allowing ingress traffic:
    <none> (Selected pods are isolated for ingress connectivity)
  Not affecting egress traffic
  Policy Types: Ingress
candidate@node-1:~$ kubectl label pod ckad00018-newpod -n ckad00018 web-access=true
pod/ckad00018-newpod labeled
candidate@node-1:~$ kubectl label pod ckad00018-newpod -n ckad00018 db-access=true
pod/ckad00018-newpod labeled
candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ vim ~/chief-cardinal/nosql.yaml
candidate@node-1:~$ vim ~/chief-cardinal/nosql.yaml
candidate@node-1:~$ kubectl apply -f ~/chief-cardinal/nosql.yaml
deployment.apps/nosql configured
candidate@node-1:~$ kubectl get pods -n crayfish
NAME                                READY   STATUS    RESTARTS   AGE
nosql-74ccc7d64-lkqlg               1/1     Running   0           3m2s
candidate@node-1:~$ kubectl get deploy -n crayfish
NAME    READY   UP-TO-DATE   AVAILABLE   AGE
nosql   1/1     1             1           7h16m
candidate@node-1:~$
```

CKAD ☐☐ ☐☐☐ ☐☐☐☐☐ ☐☐ DumpTop ☐☐ ☐☐☐☐ ☐☐☐ CKAD ☐☐! DumpTop
☐ ☐☐ CKAD ☐☐ ☐☐☐ ☐☐☐☐☐☐, DumpTop CKAD ☐☐ ☐☐☐ ☐☐☐☐☐☐☐☐ ☐
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<https://www.dumptop.com/Linux-Foundation/CKAD-dump.html> (193 Q&As Dumps, 30%OFF
Special Discount: **KrDump**)

NEW QUESTION: 92

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Answer:

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- □□□□ □□ □□□ □□ □□□ □□□□ □□□ □□□□□. □:

- 'book-service': 'order.type=books'

- '□□ □□□': 'order.type=□□ □□'

2. ConfigMap□ □□□□.

- □□ □□□ □□□ □□□ □□□ □□ □□□ □□□□ 'order-backend-mapping'□□□□

ConfigMap□ □□□□.

- ConfigMap□ □□□□ □□ □□□ □□ □□□ □□□□ □□□□ □□□□□.

```
apiVersion: v1
kind: ConfigMap
metadata:
  name: order-backend-mapping
data:
  books: "order.type=books"
  electronics: "order.type=electronics"
```

3. □□ □□□ □□ □□: - 'order-service-deployment'□□ ConfigMap□□ □□□ □□□ □□□ □□□□ init □□□□□ □□□□□. - □ □□□ □□□□ □ □□□ □□□ □□□ □□□□ □ □□□□. - init □□□□□ □□□ □□□□ □□ □□□ □□□□□ □□□ □□□ □□□ □ □□□□.

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: order-service-deployment
spec:
  replicas: 3
  selector:
    matchLabels:
      app: order-service
  template:
    metadata:
      labels:
        app: order-service
    spec:
      initContainers:
        - name: backend-mapping-init
          image: busybox:1.32.0
          command: ['sh', '-c', 'echo $(cat /var/run/secrets/kubernetes.io/serviceaccount/token) > /var/tmp/token && echo "order_backend=$(kubectl get configmap order-backend-mapping -o jsonpath="{.data['$(echo $ORDER_TYPE)']}")" >> /var/tmp/env.properties']
          volumeMounts:
            - name: token-volume
              mountPath: /var/run/secrets/kubernetes.io/serviceaccount
      containers:
        - name: order-service
          image: example/order-service:latest
          env:
            - name: ORDER_BACKEND
              valueFrom:
                configMapKeyRef:
                  name: order-backend-mapping
                  key: $(echo $ORDER_TYPE)
          volumeMounts:
            - name: token-volume
              mountPath: /var/run/secrets/kubernetes.io/serviceaccount
          volumes:
            - name: token-volume
              secret:
                secretName: default-token-XXX
```

4. □□ □□□ □□□□: - 'order-service' □□□□□ init □□□□□□□ □□□ □□ □□□ □□ □□ □□□ □□□ □□□□□ □□□□□ □□□□ □□□ □□□□□. 5. □□ □□ □□: -

policy' NetworkPolicy .

- 'ingress' nginx .

- nginx .

- .

```
apiVersion: networking.k8s.io/v1
```

```
kind: NetworkPolicy
```

```
metadata:
```

```
  name: nginx-policy
```

```
spec:
```

```
  podSelector:
```

```
    matchLabels:
```

```
      app: nginx
```

```
  ingress:
```

```
    - from:
```

```
      - podSelector:
```

```
        matchLabels:
```

```
          app: app
```

```
    ports:
```

```
      - protocol: TCP
```

```
        port: 80
```

```
  egress: []
```



2. App Service - 'app=app' Pod 'app=database' .

Pod 'app-policy' NetworkPolicy . -

'ingress' App Service . - App Service

'podSelector' . - .

```
apiVersion: networking.k8s.io/v1
kind: NetworkPolicy
metadata:
  name: app-policy
spec:
  podSelector:
    matchLabels:
      app: app
  ingress:
    - from:
      - podSelector:
          matchLabels:
            app: database
    ports:
      - protocol: TCP
        port: 5432
  egress: []
```

3. NetworkPolicy - 'kubectl apply' NetworkPolicy . bash

kubectl apply -f nginx-policy.yaml kubectl apply -f app-policy.yaml 4. . -

'default-policy' NetworkPolicy . -

.

```
apiVersion: networking.k8s.io/v1
kind: NetworkPolicy
metadata:
  name: default-policy
spec:
  podSelector: {}
  ingress:
  - {}
  egress:
  - {}
```

5. □□ □□□□ □□ □□: - 'kubectl apply' □□□ □□□□ NetworkPoliCY□ □□□□□. bash
kubectl apply -f default-policy_yaml □ □□□ □□ □□□ □□□□□□. - Nginx □□□: □□ 80□
□ '□' □□□□ □□□□ □ □□□ □□ □□□□ □□□□□ □□ □ □□□□. - □ □□□: □
□ 5432□□ '□□□□□□' □□□□ □□□□ □ □□□ □□ □□□□ □□□□□ □□ □ □□
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NEW QUESTION: 95

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□□, CronJob□ □□ YAML □□ □□□ □□□□□.

Answer:

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□□□(□□□):

1. □□□□ □□□ □□□:

- □□ □□□□□ □□□ □□ □□□□ □□□□ □□□□□ Dockerfile□ □□□□.

- □□□□ □□□□ □□□□ □□□□□(□: Docker Hub)□ □□□□□.

□□□

ubuntu:latest□□

□□□ □□□ □□

apt-get update && apt-get install -y zip□ □□□□□.

□□ □□□□□ □□□□□ □□□□□.

COPY backup.sh 'backup.sh

□□ □□□□□ □□□ □□

□□□ ["/backup.sh"]

2. CronJob YAML□ □□□□.

- YAML □□□ 'cronJob' □□□□ □□□□□. □□, □□□□ □□□, □□□ □□□ □□□□□.

ackup.sh]

LINUX
FOUNDATION

NEW QUESTION: 96

You must switch to the correct cluster/configuration context. Failure to do so may result in a zero score.

```
[candidate@node-1] $ kubectl config use-context sk8s
```

 THE
LINUX
FOUNDATION

The application was developed for Kubernetes v1.15 .
The cluster k8s runs Kubernetes v1.24 .

Answer:

□ □ □ :

```
candidate@node-1:~$ kubectl config use-context k8s
Switched to context "k8s".
candidate@node-1:~$ vim ~/credible-mite/www.yaml
```

```
File Edit View Terminal Tabs Help
apiVersion: apps/v1
kind: Deployment
metadata:
  name: www-deployment
  namespace: cobra
spec:
  replicas: 3
  selector:
    matchLabels:
      app: nginx
  template:
    metadata:
      labels:
        app: nginx
    spec:
      containers:
        - name: nginx
          image: "nginx:stable"
          ports:
            - containerPort: 80
          volumeMounts:
            - mountPath: /var/log/nginx
              name: logs
          env:
            - name: NGINX_ENTRYPOINT_QUIET_LOGS
              value: "1"
      volumes:
        - name: logs
          emptyDir: {}
```

```
File Edit View Terminal Tabs Help
```

```
deployment.apps/expose created
```

```
candidate@node-1:~$ kubectl get pods -n ckad00014
```

NAME	READY	STATUS	RESTARTS	AGE
expose-85dd99d4d9-25675	0/1	ContainerCreating	0	6s
expose-85dd99d4d9-4fhcc	0/1	ContainerCreating	0	6s
expose-85dd99d4d9-fl7j	0/1	ContainerCreating	0	6s
expose-85dd99d4d9-tt6rm	0/1	ContainerCreating	0	6s
expose-85dd99d4d9-vjd8b	0/1	ContainerCreating	0	6s
expose-85dd99d4d9-vtzpq	0/1	ContainerCreating	0	6s

```
candidate@node-1:~$ kubectl get deploy -n ckad00014
```

NAME	READY	UP-TO-DATE	AVAILABLE	AGE
expose	6/6	6	6	15s

```
candidate@node-1:~$ kubectl config use-context k8s
```

```
Switched to context "k8s".
```

```
candidate@node-1:~$ vim ~/credible-mite/www.yaml
```

```
candidate@node-1:~$ kubectl apply -f ~/credible-mite/www.yaml
```

```
deployment.apps/www-deployment created
```

```
candidate@node-1:~$ kubectl get pods -n cobra
```

NAME	READY	STATUS	RESTARTS	AGE
www-deployment-d899c6b49-d6ccg	1/1	Running	0	6s
www-deployment-d899c6b49-f796l	0/1	ContainerCreating	0	6s
www-deployment-d899c6b49-ztfcw	0/1	ContainerCreating	0	6s

```
candidate@node-1:~$ kubectl get deploy -n cobra
```

NAME	READY	UP-TO-DATE	AVAILABLE	AGE
www-deployment	3/3	3	3	11s

```
candidate@node-1:~$ kubectl get pods -n cobra
```

NAME	READY	STATUS	RESTARTS	AGE
www-deployment-d899c6b49-d6ccg	1/1	Running	0	14s
www-deployment-d899c6b49-f796l	1/1	Running	0	14s
www-deployment-d899c6b49-ztfcw	1/1	Running	0	14s

```
candidate@node-1:~$
```

NEW QUESTION: 97

□ □

Set configuration context.

```
[student@node-1] ~$ kubectl config  
use-context k8s
```

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Answer:

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```
Readme Web Terminal THE LINUX FOUNDATION

student@node-1:~$ kubectl get serviceaccount -n production
NAME          SECRETS  AGE
default       1        6h46m
restrictedservice 1        6h46m
student@node-1:~$ kubectl get deployment -n production
NAME    READY  UP-TO-DATE  AVAILABLE  AGE
app-a   3/3    3           3          6h46m
student@node-1:~$ kubectl set serviceaccount deployment app-a restrictedservice -n production
deployment.apps/app-a serviceaccount updated
student@node-1:~$
```

NEW QUESTION: 98

□□□ □□□□□.

Set configuration context:



```
[student@node-1] $ kubectl config  
use-context nk8s
```



□□ □□□□ □□:

[student@node-1] \$ | kubectl

k8s □□ □□□□ □□

□

□□□□ □ Pod□ □□□□□□□□ □□ □ □ □□□□ Pod□□ □□□ □ □□□ □□□□ □□

□. □□ □□ Pod□ kdsn00201 -newpod □□□ □□□□ □□□□ □□□ □□□□ □ □ □□

□□ Pod□□ □□□□ □□□□ □ □□□ □□□.

All work on this item should be
conducted in the kdsn00201
namespace.



All required NetworkPolicy resources
are already created and ready for use as
appropriate. You should not create, modify
or delete any network policies whilst
completing this item.



Answer:

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```

apiVersion: networking.k8s.io/v1
kind: NetworkPolicy
metadata:
  name: newpod-network-policy
  namespace: kdsn00201
spec:
  podSelector:
    matchLabels:
      app: kdsn00201-newpod
  policyTypes:
  - Ingress
  - Egress
  ingress:
  - from:
    - podSelector:
        matchLabels:
          app=web
    - podSelector:
        matchLabels:
          app=storage
    - podSelector:
        matchLabels:
          app=kdsn00201-newpod
  egress:
  - to:
    - podSelector:
        matchLabels:
          app=web
    - podSelector:
        matchLabels:
          app=storage
    - podSelector:
        matchLabels:
          app=kdsn00201-newpod
  - to:
    - ipBlock:
        cidr: 0.0.0.0/0

```

kubectl apply -f <filename>.yaml

To verify the NetworkPolicy is applied, run:

 kubectl get networkpolicy, Pod

To check the API versions supported by your Kubernetes cluster, run:

 kubectl api-versions | grep networking

To check the NetworkPolicy is applied to the Pod, run:

 kubectl exec Pod -- curl -s http://0.0.0.0:80

NEW QUESTION: 99

Set configuration context:

```
[student@node-1] ~$ kubectl config  
use-context k8s
```



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Answer:

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A screenshot of a web terminal window titled 'Readme' and 'Web Terminal'. The terminal shows a series of kubectl commands and their outputs. The commands are: 'kubectl get serviceaccount -n production', 'kubectl get deployment -n production', and 'kubectl set serviceaccount deployment app-a restrictedservice -n production'. The outputs show the details of the serviceaccounts and deployments. The terminal is watermarked with 'krdump.com' and 'THE LINUX FOUNDATION'.

```
student@node-1:~$ kubectl get serviceaccount -n production
NAME          SECRETS  AGE
default       1        6h46m
restrictedservice 1        6h46m
student@node-1:~$ kubectl get deployment -n production
NAME    READY  UP-TO-DATE  AVAILABLE  AGE
app-a   3/3    3           3          6h46m
student@node-1:~$ kubectl set serviceaccount deployment app-a restrictedservice -n production
deployment.apps/app-a serviceaccount updated
student@node-1:~$
```

NEW QUESTION: 100

□□□□:

Set configuration context:

```
[student@node-1] $ kubectl config  
use-context k8s
```

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Kubernetes □□□□□□ □□□□□□ □□ □□ □□□□□□□ □□□□□□ □□ □□□ □□
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* kdpd00202 □□□□□□□□ □ □□□ maxSurge□ 5%, maxUnavailable□ 2%□ □□□□□
□□.

* Ifccncf/ngmx □□□ □□□ 1.13□□ □□□□ web1 □□□ □□ □□□□□ □□□□□.

* □ □□□ □□ □□□□ □□□□□.

A. □□□:



```
uid: 1dfa2527-5c61-46a9-8dd3-e24643d3ce14
spec:
  progressDeadlineSeconds: 600
  replicas: 10
  revisionHistoryLimit: 10
  selector:
    matchLabels:
      app: nginx
  strategy:
    rollingUpdate:
      maxSurge: 5%
      maxUnavailable: 2
    type: RollingUpdate
  template:
    metadata:
      creationTimestamp: null
      labels:
        app: nginx
    spec:
      containers:
      - image: lfccncf/nginx:1.13
        imagePullPolicy: IfNotPresent
        name: nginx
        ports:
        - containerPort: 80
          protocol: TCP
:wg!
```



```
student@node-1:~$ kubectl edit deployment app -n kdpd00202
deployment.apps/app edited
student@node-1:~$ kubectl rollout status deployment app -n kdpd00202
Waiting for deployment "app" rollout to finish: 6 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 7 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 7 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 7 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 8 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 8 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 8 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 8 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 9 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 9 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 9 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 1 old replicas are pending termination...
Waiting for deployment "app" rollout to finish: 8 of 10 updated replicas are available...
Waiting for deployment "app" rollout to finish: 9 of 10 updated replicas are available...
deployment "app" successfully rolled out
student@node-1:~$ kubectl rollout undo deployment app -n kdpd00202
deployment.apps/app rolled back
student@node-1:~$ kubectl rollout status deployment app -n kdpd00202
student@node-1:~$ kubectl rollout status deployment app -n kdpd00202
Waiting for deployment "app" rollout to finish: 6 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 6 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 6 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 6 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 7 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 7 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 9 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 9 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 9 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 1 old replicas are pending termination...
Waiting for deployment "app" rollout to finish: 1 old replicas are pending termination...
Waiting for deployment "app" rollout to finish: 1 old replicas are pending termination...
Waiting for deployment "app" rollout to finish: 8 of 10 updated replicas are available...
Waiting for deployment "app" rollout to finish: 9 of 10 updated replicas are available...
deployment "app" successfully rolled out
student@node-1:~$
```

B. □□□:

```
Readme Web Terminal THE LINUX FOUNDATION
student@node-1:~$ kubectl edit deployment app -n kdpd00202
```

```
Readme Web Terminal THE LINUX FOUNDATION

uid: 1dfa2527-5c61-46a9-8dd3-e24643d3ce14
spec:
  progressDeadlineSeconds: 600
  replicas: 10
  revisionHistoryLimit: 10
  selector:
    matchLabels:
      app: nginx
  strategy:
    rollingUpdate:
      maxSurge: 5%
      maxUnavailable: 2
    type: RollingUpdate
  template:
    metadata:
      creationTimestamp: null
      labels:
        app: nginx
    spec:
      containers:
      - image: lfccncf/nginx:1.13
        imagePullPolicy: IfNotPresent
        name: nginx
        ports:
        - containerPort: 80
          protocol: TCP
:wq!
```

```
Readme Web Terminal THE LINUX FOUNDATION

student@node-1:~$ kubectl edit deployment app -n kdpd00202
deployment.apps/app edited
student@node-1:~$ kubectl rollout status deployment app -n kdpd00202
Waiting for deployment "app" rollout to finish: 6 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 7 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 7 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 7 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 8 out of 10 new replicas have been updated...
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Waiting for deployment "app" rollout to finish: 8 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 9 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 9 out of 10 new replicas have been updated...
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Waiting for deployment "app" rollout to finish: 8 of 10 updated replicas are available...
Waiting for deployment "app" rollout to finish: 9 of 10 updated replicas are available...
deployment "app" successfully rolled out
student@node-1:~$ kubectl rollout undo deployment app -n kdpd00202
deployment.apps/app rolled back
student@node-1:~$ kubectl rollout status deployment app -n kdpd00202
student@node-1:~$ kubectl rollout status deployment app -n kdpd00202
Waiting for deployment "app" rollout to finish: 6 out of 10 new replicas have been updated...
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Waiting for deployment "app" rollout to finish: 6 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 6 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 7 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 7 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 7 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 7 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 7 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 8 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 8 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 8 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 8 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 8 out of 10 new replicas have been updated...
Waiting for deployment "app" rollout to finish: 1 old replicas are pending termination...
deployment "app" successfully rolled out
student@node-1:~$
```

Answer: ([SHOW ANSWER](#))

NEW QUESTION: 101

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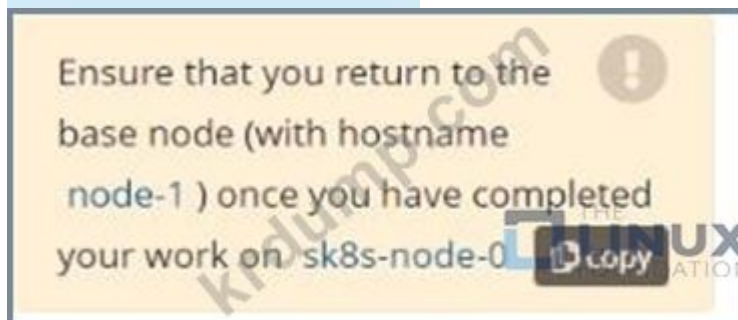
□□ □□□□ □□□ □□ □□□ □□□□□.

* /opt/KDSP00101/data/index.html □□ sk8s-node-0 □ Acct=Finance □□ □□□ □□□ □□ □□.

* hostPath □ □□□□ task-pv-volume □□□ □□□ PersistentVolume □ □□□□ 1Gi □ □□□ □, □□□ □□□□ □□□ /opt/KDSP00101/data □ □□□□ □□□□□. □□□□ □□□ □ □□ ReadWriteOnce □ □□□□ □□□. □□, PersistentVolumeClaim □□□ □ PersistentVolume □ □□□□ □ □□□ PersistentVolume □ StorageClass □□ exam □ □□ □□ □□□.

* □□ 100Mi □ □□□ □□□□ ReadWriteOnce □□□ □□□ □□□□ task-pv-claim □□□ □ □□ PefsissentVolumeClaim □ □□□□□.

* □□ app: my-storage-app □ □□□□ PersistentVolmeClaim □ □□□□ □□□□ □□□ □□ □□ □□□ mountPath /usr/share/nginx/html □□ □□□ □□□□□□.



Answer:

Readme Web Terminal

THE LINUX FOUNDATION

```
student@node-1:~$ kubectl config use-context sk8s
Switched to context "sk8s".
student@node-1:~$
```

Readme Web Terminal

THE LINUX FOUNDATION

- * Documentation: <https://help.ubuntu.com>
- * Management: <https://landscape.canonical.com>
- * Support: <https://ubuntu.com/advantage>

System information as of Fri Oct 9 08:52:09 UTC 2020

System load: 2.02	Users logged in: 0
Usage of /: 10.3% of 242.29GB	IP address for eth0: 10.250.3.115
Memory usage: 2%	IP address for docker0: 172.17.0.1
Swap usage: 0%	IP address for cn10: 10.244.1.1
Processes: 38	

* Kubernetes 1.19 is out! Get it in one command with:

```
sudo snap install microk8s --channel 1.19 --classic
```

<https://microk8s.io/> has docs and details.

7 packages can be updated.
1 update is a security update.

New release '20.04.1 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

```
student@sk8s-node-0:~$
```

Readme Web Terminal

THE LINUX FOUNDATION

```
student@sk8s-node-0:~$ echo 'Acct=Finance' > /opt/k8sP00101/data/index.html
student@sk8s-node-0:~$ vim pv.yml
```

-- INSERT --

0,1

All

```
apiVersion: v1
kind: PersistentVolume
metadata:
  name: task-pv-volume
spec:
  capacity:
    storage: 1Gi
  accessModes:
    - ReadWriteOnce
  storageClassName: storage
  hostPath:
    path: /opt/KDSP00101/data
    type: Directory
```

```
apiVersion: v1
kind: PersistentVolumeClaim
metadata:
  name: task-pv-claim
spec:
  accessModes:
    - ReadWriteOnce
  resources:
    requests:
      storage: 100Mi
  storageClassName: storage
```

```

student@sk8s-node-0:~$ kubectl create -f pv.yml
persistentvolume/task-pv-volume created
student@sk8s-node-0:~$ kubectl create -f pvc.yml
persistentvolumeclaim/task-pv-claim created
student@sk8s-node-0:~$ kubectl get pv
NAME                CAPACITY  ACCESS MODES  RECLAIM POLICY  STATUS  CLAIM                STORAGECLASS  AGE
task-pv-volume      1Gi       RWO           Retain          Bound   default/task-pv-claim  storageclass  11s
student@sk8s-node-0:~$ kubectl get pvc
NAME                STATUS  VOLUME              CAPACITY  ACCESS MODES  STORAGECLASS  AGE
task-pv-claim       Bound   task-pv-volume      1Gi       RWO           storageclass  9s
student@sk8s-node-0:~$ vim pod.yml

```

```

Readme  Web Terminal THE LINUX FOUNDATION
apiVersion: v1
kind: Pod
metadata:
  name: mypod
  labels:
    app: my-storage-app
spec:
  containers:
    - name: myfrontend
      image: nginx
      volumeMounts:
        - mountPath: "/usr/share/nginx/html"
          name: mypod
      volumes:
        - name: mypod
          persistentVolumeClaim:
            claimName: task-pv-claim

```

```

student@sk8s-node-0:~$ kubectl create -f pod.yml
pod/mypod created
student@sk8s-node-0:~$ kubectl get

```

```

Readme  Web Terminal THE LINUX FOUNDATION
student@sk8s-node-0:~$ kubectl get pods
NAME    READY   STATUS    RESTARTS   AGE
mypod   0/1     ContainerCreating   0          4s
student@sk8s-node-0:~$ kubectl get pods
NAME    READY   STATUS    RESTARTS   AGE
mypod   0/1     ContainerCreating   0          8s
student@sk8s-node-0:~$ kubectl get pods
NAME    READY   STATUS    RESTARTS   AGE
mypod   1/1     Running    0          10s
student@sk8s-node-0:~$ logout
Connection to 10.250.3.115 closed.
student@node-1:~$

```

NEW QUESTION: 102

You are working on a Kubernetes cluster and need to create a CronJob that runs a script to update a database. The script is located at /usr/local/bin/update-db.sh. The CronJob should run every 5 minutes. The script should update the database using the following environment variables: 'DATABASE_HOST', 'DATABASE_USER', 'DATABASE_PASSWORD'. The CronJob should be named 'database-update-v1'.

Answer:

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l). CronJob YAML □□□ □□□□.

- □□ □□□ 'database-update-cronjob.yaml'□□□ YAML □□□ □□□ Stan□ □□□□□.

apiVersion: batch/v1

kind: CronJob

metadata:

name: database-update

spec:

schedule: "0 1 * * *" # Run at 1:00 AM every day

jobTemplate:

spec:

template:

spec:

containers:

- name: database-update

image: database-update:v1

command: ["/bin/sh", "-c", "update_database.sh"]

env:

- name: DATABASE_HOST

valueFrom:

secretKeyRef:

name: database-credentials

key: DATABASE_HOST

- name: DATABASE_USER

valueFrom:

secretKeyRef:

name: database-credentials

key: DATABASE_USER

- name: DATABASE_PASSWORD

valueFrom:

secretKeyRef:

name: database-credentials

key: DATABASE_PASSWORD

backoffLimit: 4 # Retry up to 4 times if the job fails

2. □□□□□□ □□ □□□ □□ □□□□ □□□□□. - □□□ □□□□□□ □□ □□□ □□

□ 'database-credentials'□□ □□□ Kubernetes □□□□ □□□□□.] bash kubectl create

secret generic database-credentials \ --from-literal=DATABASE_HOST=your_database_host \ --

from-literal=DATABASE_USER=your_database_user --from-

literal=DATABASE_PASSWORD=your_database_password 3. CronJob□ □□□□□. - 'kubectl

apply -f database-update-cronjob.yaml'□ □□□□ CronJob YAML □□□ □□□□□. 4.

CronJob□ □□□□□. - "kubectl get cronjobs"□ □□□□ CronJob□ □□□ □□□□ □□□□

□ □□□□□□ □□□□□. - 'schedule': CronJob□ □□□ □□□□□. □ □□ "0 1"□ □□□

□ □□□ □□ □□ 1□□ □□□□□. - 'jobTemplate': CronJob□□ □□□ □□□ □□□□ □

□□□□. - 'containers': □□□□□□ □□□□ □□□□□ □□□ □□□□□ □□□□□. -

```
'images': [][][], 'database-update.vl'[] []. - 'command': [][][], []  
[] [], [][]. - [][][] [][] [][] [][] [].  
[], [][] [][] [][] [][] 'database-credentials'[] Kubernetes [][] [][]  
[][], -. 'backoffLimit': [] [] [] [] [] [].
```

NEW QUESTION: 103

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Answer:

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- □:

```
apiVersion: v1
kind: Service
metadata:
  name: myapp-service
spec:
  type: LoadBalancer
  selector:
    app: myapp
  ports:
    - port: 80
      targetPort: 8080
```

- [illegible]

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