

Exam : CKA

Title : Certified Kubernetes

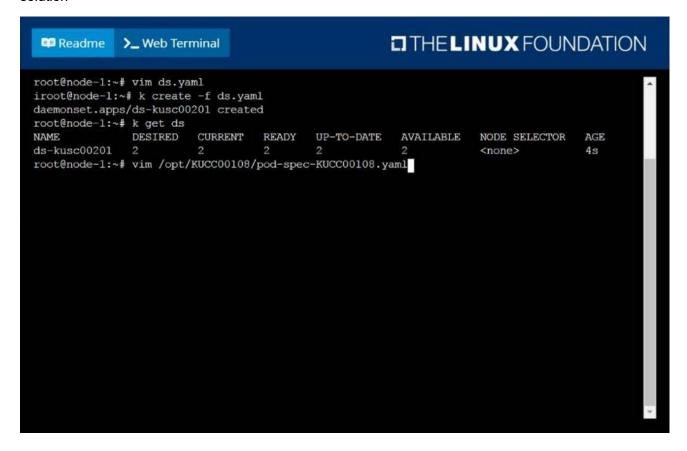
Administrator

Version: DEMO

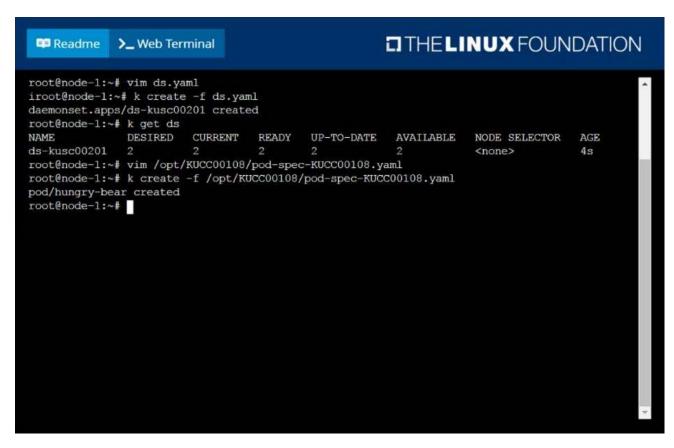
Perform the following tasks:

- ⇒ Add an init container to hungry-bear (which has been defined in spec file /opt/KUCC00108/pod-spec-KUCC00108.yaml)
- → The init container should create an empty file named/workdir/calm.txt
- → If /workdir/calm.txt is not detected, the pod should exit
- Once the spec file has been updated with the init container definition, the pod should be created

Answer:



```
THE LINUX FOUNDATION
 Readme
              >_ Web Terminal
apiVersion: vl
kind: Pod
 name: hungry-bear
    - name: workdir
  name: checker
   image: alpine
    command: ["/bin/sh", "-c", "if [ -f /workdir/calm.txt ];
then sleep 100000; else exit 1; fi"]
    - name: workdir
     mountPath: /workdir
    name: create
    image: alpine
   command: ["/bin/sh", "-c", "touch /workdir/calm.txt"]
volumeMounts:
    - name: workdir
      mountPath: /workdir
```



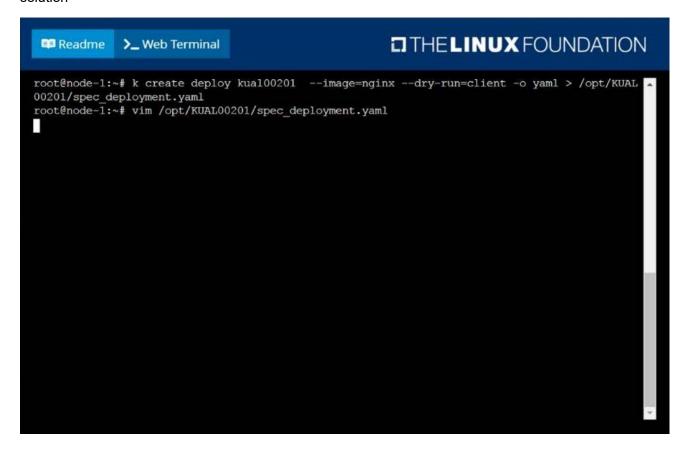
Create a deployment spec file that will:

- ⇒ Launch 7 replicas of the nginx Image with the labelapp_runtime_stage=dev
- ⇒ deployment name: kual00201

Save a copy of this spec file to /opt/KUAL00201/spec_deployment.yaml (or /opt/KUAL00201/spec_deployment.json).

When you are done, clean up (delete) any new Kubernetes API object that you produced during this task.

Answer:



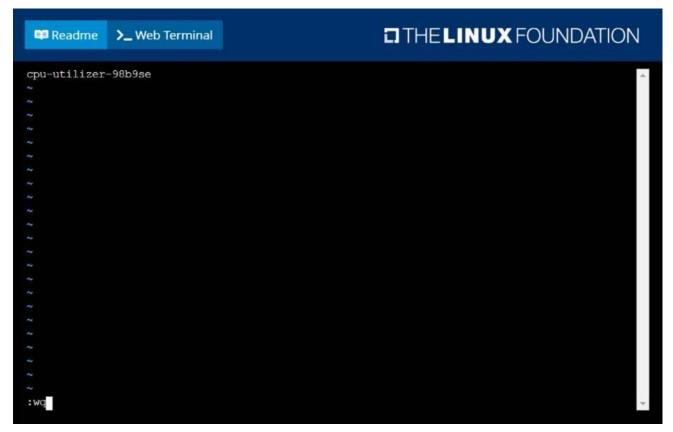
```
apiversion: apps/v1
kind: Deployment
metadata:
labels:
app_runtime stage: dev
name: kua100201
spec:
replicas: 7
selector:
matchLabels:
app_runtime_stage: dev
template:
metadata:
labels:
app_runtime_stage: dev
template:
metadata:
labels:
app_runtime_stage: dev
spec:
containers:
- image: nginx
name: nginx

"/opt/KUAL00201/spec_deployment.yaml" 19L, 320C written
```

From the pod label name=cpu-utilizer, find pods running high CPU workloads and write the name of the pod consuming most CPU to the file /opt/KUTR00102/KUTR00102.txt (which already exists).

Answer:

```
root@node-1:~# k top po -1 name=cpu-utilizer
NAME CPU(cores) MEMORY(bytes)
cpu-utilizer-98b9se 60m 7Mi
cpu-utilizer-ab2d3s 14m 7Mi
cpu-utilizer-kipb9a 45m 7Mi
root@node-1:~# vim /opt/KUTR00102/KUTR00102.txt
```



Create a Kubernetes secret as follows:

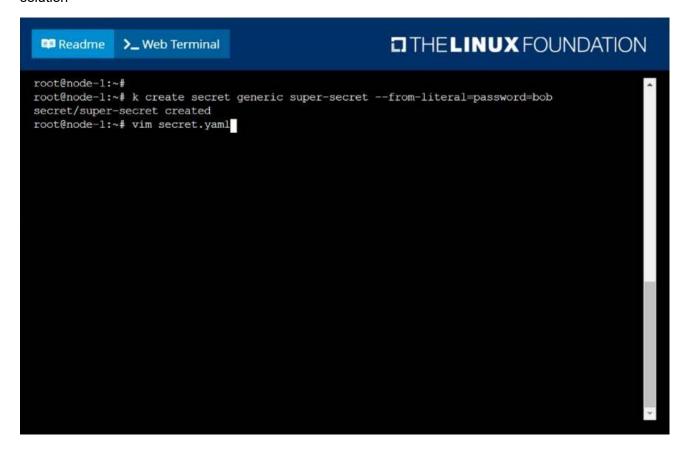
→ Name: super-secret

⇒ password: bob

Create a pod named pod-secrets-via-file, using the redis Image, which mounts a secret named supersecret at /secrets.

Create a second pod named pod-secrets-via-env, using the redis Image, which exports password as CONFIDENTIAL

Answer:



```
apiversion: v1
kind: Pod
metadata:
name: pod-secrets-via-file
spec:
containers:
- name: redis
image: redis
volumeMounts:
- name: foo
mountPath: "/secrets"
volumes:
- name: foo
secret:
secretName: super-secret
```

Readme >_ Web Termina	al			ITHE LINUX FOUNDATION
root@node-1:~# k create -f secret.yaml pod/pod-secrets-via-file created root@node-1:~# vim secret1.yaml root@node-1:~# k create -f secret1.yaml pod/pod-secrets-via-env created root@node-1:~# k get po				
NAME	READY	STATUS	RESTARTS	AGE
cpu-utilizer-98b9se	1/1	Running	0	6h25m
cpu-utilizer-ab2d3s	1/1	Running	0	6h25m
cpu-utilizer-kipb9a	1/1	Running	0	6h25m
ds-kusc00201-2r2k9	1/1	Running	0	40m
ds-kusc00201-hzm9q	1/1	Running	0	40m
foo	1/1	Running	0	6h28m
front-end	1/1	Running	0	6h27m
hungry-bear	1/1	Running	0	36m
kucc8	3/3	Running	0	34m
nginx-app-848cfcf495-9prjh	1/1	Running	0	19m
nginx-app-848cfcf495-g12kh	1/1	Running	0	19m
nginx-app-848cfcf495-pg2c8	1/1	Running	0	19m
nginx-kusc00101	1/1	Running	0	26m
pod-secrets-via-env	1/1	Running	0	4s
pod-secrets-via-file	1/1	Running	0	106s
webserver-84c55967f4-qzjcv	1/1	Running	0	6h43m
webserver-84c55967f4-t4791 root@node-1:~#	1/1	Running	0	6h43m

Score: 7%



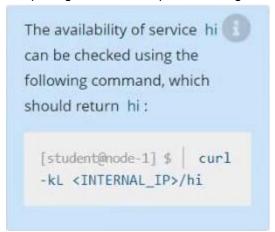
Task

Create a new nginx Ingress resource as follows:

· Name: ping

• Namespace: ing-internal

• Exposing service hi on path /hi using service port 5678



Answer:

Solution:

vi ingress.yaml

#

apiVersion: networking.k8s.io/v1 kind: Ingress metadata: name: ping

namespace: ing-internal

spec: rules: - http: paths:

- path: /hi pathType: Prefix backend: service: name: hi

port:

number: 5678

#

kubectl create -f ingress.yaml