

First Attempt Guaranteed Success in CKA Exam 2023 [Q13-Q32]



First Attempt Guaranteed Success in CKA Exam 2023 Real CKA Exam Questions are the Best Preparation Material

How much CNCF CKA Certification Exam Cost and Details - No. of Questions: 17 Questions- Examination Fees: \$375 USD- Types of questions: Multiple Choice Questions- Retake Exam: Free- Examination Name: CNCF CKA Certification

NO.13 List all the pods showing name and namespace with a json path expression
kubectl get pods -o=jsonpath={.items[*].metadata.name,

{.items[*].metadata.namespace}};

NO.14 Ensure a single instance of podnginx is running on each node of the Kubernetes cluster where nginx also represents the Image name which has to be used. Do not override any taints currently in place.

Use DaemonSet to complete this task and use ds-kusc00201 as DaemonSet name.
See the solution below.

Explanation

solution

```
Readme Web Terminal THE LINUX FOUNDATION
root@node-1:~# vim ds.yaml
i
```

```
Readme Web Terminal THE LINUX FOUNDATION
apiVersion: apps/v1
kind: DaemonSet
metadata:
  name: fluentd-elasticsearch
  namespace: kube-system
  labels:
    k8s-app: fluentd-logging
spec:
  selector:
    matchLabels:
      name: fluentd-elasticsearch
  template:
    metadata:
      labels:
        name: fluentd-elasticsearch
    spec:
      tolerations:
        # this toleration is to have the daemonset runnable on master nodes
        # remove it if your masters can't run pods
        - key: node-role.kubernetes.io/master
          effect: NoSchedule
      containers:
        - name: nginx
          image: nginx
-- INSERT -- 17,19 All
```

```
Readme Web Terminal THE LINUX FOUNDATION

apiVersion: apps/v1
kind: DaemonSet
metadata:
  name: ds-kusc00201
spec:
  selector:
    matchLabels:
      name: fluentd-elasticsearch
  template:
    metadata:
      labels:
        name: fluentd-elasticsearch
    spec:
      containers:
      - name: nginx
        image: nginx
~
~
~
~
~
~
~
~
~
~
~
: wq
```

```
Readme Web Terminal THE LINUX FOUNDATION

root@node-1:~# vim ds.yaml
iroot@node-1:~# k create -f ds.yaml
daemonset.apps/ds-kusc00201 created
root@node-1:~# k get ds
NAME             DESIRED   CURRENT   READY   UP-TO-DATE   AVAILABLE   NO. OF   SELECTOR   AGE
ds-kusc00201    2         2         2       2             2           <non>    <non>     4s
root@node-1:~#
```


NO.15 A Kubernetes worker node, named wk8s-node-0 is in state NotReady. Investigate why this is the case, and perform any appropriate steps to bring the node to a Ready state, ensuring that any changes are made permanent.

You can ssh to the failed node using:

```
[student@node-1] $ | ssh Wk8s-node-0
```

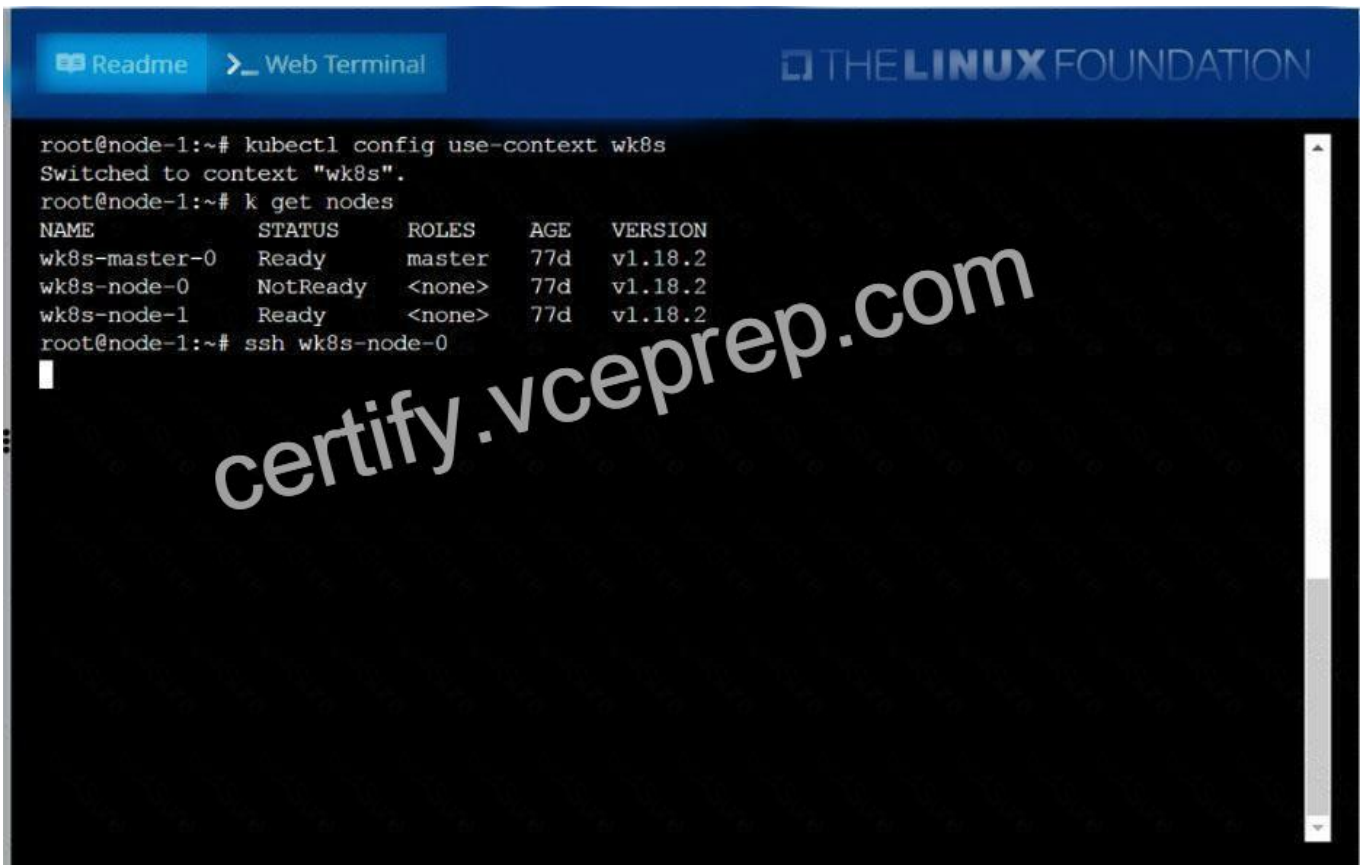
You can assume elevated privileges on the node with the following command:

```
[student@w8ks-node-0] $ | sudo -i
```

See the solution below.

Explanation

solution



The screenshot shows a web terminal interface with a dark blue header. On the left, there are buttons for 'Readme' and 'Web Terminal'. On the right, the 'THE LINUX FOUNDATION' logo is visible. The terminal content shows the following commands and output:

```
root@node-1:~# kubectl config use-context wk8s
Switched to context "wk8s".
root@node-1:~# k get nodes
NAME           STATUS    ROLES    AGE   VERSION
wk8s-master-0 Ready     master   77d   v1.18.2
wk8s-node-0    NotReady <none>   77d   v1.18.2
wk8s-node-1    Ready     <none>   77d   v1.18.2
root@node-1:~# ssh wk8s-node-0
```

A large watermark 'certify.vceprep.com' is overlaid diagonally across the terminal output. A vertical scrollbar is visible on the right side of the terminal window.

```
Readme Web Terminal THE LINUX FOUNDATION

wk8s-node-0    NotReady    <none>     77d    v1.18.2
wk8s-node-1    Ready       <none>     77d    v1.18.2
root@node-1:~# ssh wk8s-node-0
Welcome to Ubuntu 16.04.6 LTS (GNU/Linux 4.4.0-1109-aws x86_64)

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

 * Are you ready for Kubernetes 1.19? It's ready here! Try RC3 with
   sudo snap install microk8s --channel=1.19/candidate --classic
   https://microk8s.io/ has docs and details.

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

New release '18.04.5 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

student@wk8s-node-0:~$ sudo -i
root@wk8s-node-0:~# systemctl restart kubelet
root@wk8s-node-0:~# systemctl enable kubelet
```

```
Readme Web Terminal THE LINUX FOUNDATION

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

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

New release '18.04.5 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

student@wk8s-node-0:~$ sudo -i
root@wk8s-node-0:~# systemctl restart kubelet
root@wk8s-node-0:~# systemctl enable kubelet
Created symlink from /etc/systemd/system/multi-user.target.wants/kubelet.service to /lib/systemd/system/kubelet.service.
root@wk8s-node-0:~# exit
logout
student@wk8s-node-0:~$ exit
logout
Connection to 10.250.5.34 closed.
root@node-1:~# k get nodes
NAME           STATUS    ROLES    AGE   VERSION
wk8s-master-0 Ready     master   77d   v1.18.2
wk8s-node-0    Ready     <none>   77d   v1.18.2
wk8s-node-1    Ready     <none>   77d   v1.18.2
root@node-1:~#
```

NO.16 Create a redis pod named `test-redis`; and exec into that pod and create a file named `test-file.txt`; with the text `This is called the test file`; in the path `/data/redis` and open another tab and exec again with the same pod and verifies file exist in the same path.

```
* vim test-redis.yaml
```

```
apiVersion: v1
```

```
kind: Pod
```

```
metadata:
```

```
name: test-redis
```

```
spec:
```

```
containers:
```

```
  - name: redis
```

```
    image: redis
```

```
    ports:
```

```
      - containerPort: 6379
```

```
    volumeMounts:
```

```
      - mountPath: /data/redis
```

```
        name: redis-storage
```

```
    volumes:
```

```
      - name: redis-storage
```

```
        emptyDir: {}
```

```
kubectl apply -f redis-pod-vol.yaml
```

```
// first terminal
```

```
kubectl exec -it test-redis /bin/sh
```

```
cd /data/redis
```

```
echo 'This is called the test file' > file.txt
```

```
//open another tab
```

```
kubectl exec -it test-redis /bin/sh
```

```
cat /data/redis/file.txt
```

```
* vim test-redis.yaml
```

```
apiVersion: v1
```

```
kind: Pod
```

```
metadata:
```

```
name: test-redis
```

```
spec:
```

```
containers:
```

```
&#8211; name: redis
```

```
image: redis
```

```
ports:
```

```
&#8211; containerPort: 6379
```

```
volumeMounts:
```

```
&#8211; mountPath: /data/redis
```

```
name: redis-storage
```

```
volumes:
```

```
kubectl exec -it test-redis /bin/sh
```

```
cd /data/redis
```

```
echo &#8216;This is called the test file&#8217; > file.txt
```

```
//open another tab
```

```
kubectl exec -it test-redis /bin/sh
```

```
cat /data/redis/file.txt
```

NO.17 Create a pod that echo “hello world” and then exists. Have the pod deleted automatically when it’s completed

```
kubectl run busybox &#8211;image=busybox -it &#8211;rm &#8211;restart=Never &#8212; /bin/sh -c &#8216;echo hello world&#8217; kubectl get po # You shouldn&#8217;t see pod with the name &#8220;busybox&#8221;
```

NO.18 List `nginx-dev`; and `nginx-prod`; pod and delete those pods
See the solution below.

Explanation

```
kubectl get pods -o wide
```

```
kubectl delete po nginx-dev;kubectl delete po nginx-prod;
```

NO.19 List all the pods sorted by name
See the solution below.

Explanation

```
kubectl get pods --sort-by=.metadata.name
```

NO.20 Score: 5%



Task

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/KUTR00401/KUTR00401.txt` (which already exists).

Solution:

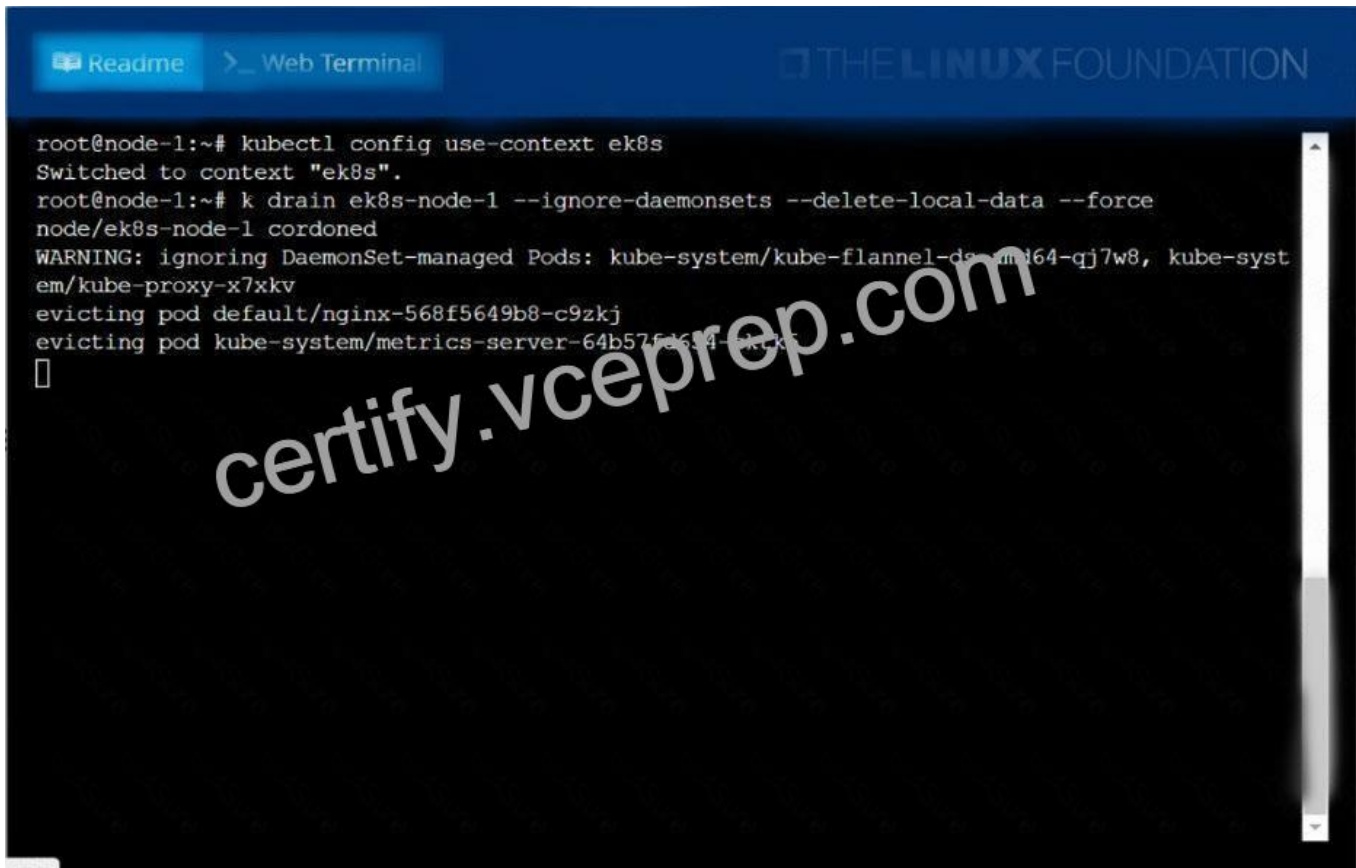
```
kubectl top -l name=cpu-user -A
```

```
echo $(kubectl top -l name=cpu-user -A) >> /opt/KUTR00401/KUTR00401.txt
```

NO.21 Set the node named `dek8s-node-1` unavailable and reschedule all the pods running on it.
See the solution below.

Explanation

solution



```
root@node-1:~# kubectl config use-context ek8s
Switched to context "ek8s".
root@node-1:~# k drain ek8s-node-1 --ignore-daemonsets --delete-local-data --force
node/ek8s-node-1 cordoned
WARNING: ignoring DaemonSet-managed Pods: kube-system/kube-flannel-ds-amd64-qj7w8, kube-syst
em/kube-proxy-x7xkv
evicting pod default/nginx-568f5649b8-c9zkj
evicting pod kube-system/metrics-server-64b57f6634-ktkx
[]
```

NO.22 List all the pods sorted by created timestamp

See the solution below.

Explanation

```
kubectl get pods --sort-by=.metadata.creationTimestamp
```

NO.23 Create a configmap called cfgvolume with values var1=val1,

var2=val2 and create an nginx pod with volume nginx-volume which

reads data from this configmap cfgvolume and put it on the path

```
/etc/cfg
```

```
* // first create a configmap cfgvolume
```

```
kubectl create cm cfgvolume --from-literal=var1=val1 --from-literal=var2=val2
```

```
// verify the configmap
```

```
kubectl describe cm cfgvolume
```

```
// create the config map
```

```
kubectl create -f nginx-volume.yml
```

```
vim nginx-configmap-pod.yaml
```

```
apiVersion: v1
```

```
kind: Pod
```

```
&#8211; name: nginx-volume
```

```
configMap:
```

```
name: cfgvolume
```

```
containers:
```

```
&#8211; image: nginx
```

```
name: nginx
```

```
volumeMounts:
```

```
&#8211; name: nginx-volume
```

```
mountPath: /etc/cfg
```

```
restartPolicy: Always
```

```
k kubectl apply -f nginx-configmap-pod.yaml
```

```
// Verify
```

```
// exec into the pod
```

```
kubectl exec -it nginx &#8212; /bin/sh
```

```
// check the path
```

```
cd /etc/cfg
```

```
* // first create a configmap cfgvolume
```

```
kubectl create cm cfgvolume &#8211;from-literal=var1=val1 &#8211;fromliteral=var2=val2
```

```
// verify the configmap
```

```
kubectl describe cm cfgvolume
```

```
// create the config map
```

```
kubectl create -f nginx-volume.yml
```

```
vim nginx-configmap-pod.yaml
```

```
apiVersion: v1
```

```
kind: Pod
```

```
metadata:
```

```
labels:
```

```
run: nginx
```

```
name: nginx
```

```
spec:
```

```
volumes:
```

```
&#8211; name: nginx-volume
```

```
configMap:
```

```
name: cfgvolume
```

```
containers:
```

```
&#8211; image: nginx
```

```
name: nginx
```

```
volumeMounts:
```

```
&#8211; name: nginx-volume
```

```
mountPath: /etc/cfg
```

```
restartPolicy: Always
```

```
k kubectl apply -f nginx-configmap-pod.yaml
```

```
// Verify
```

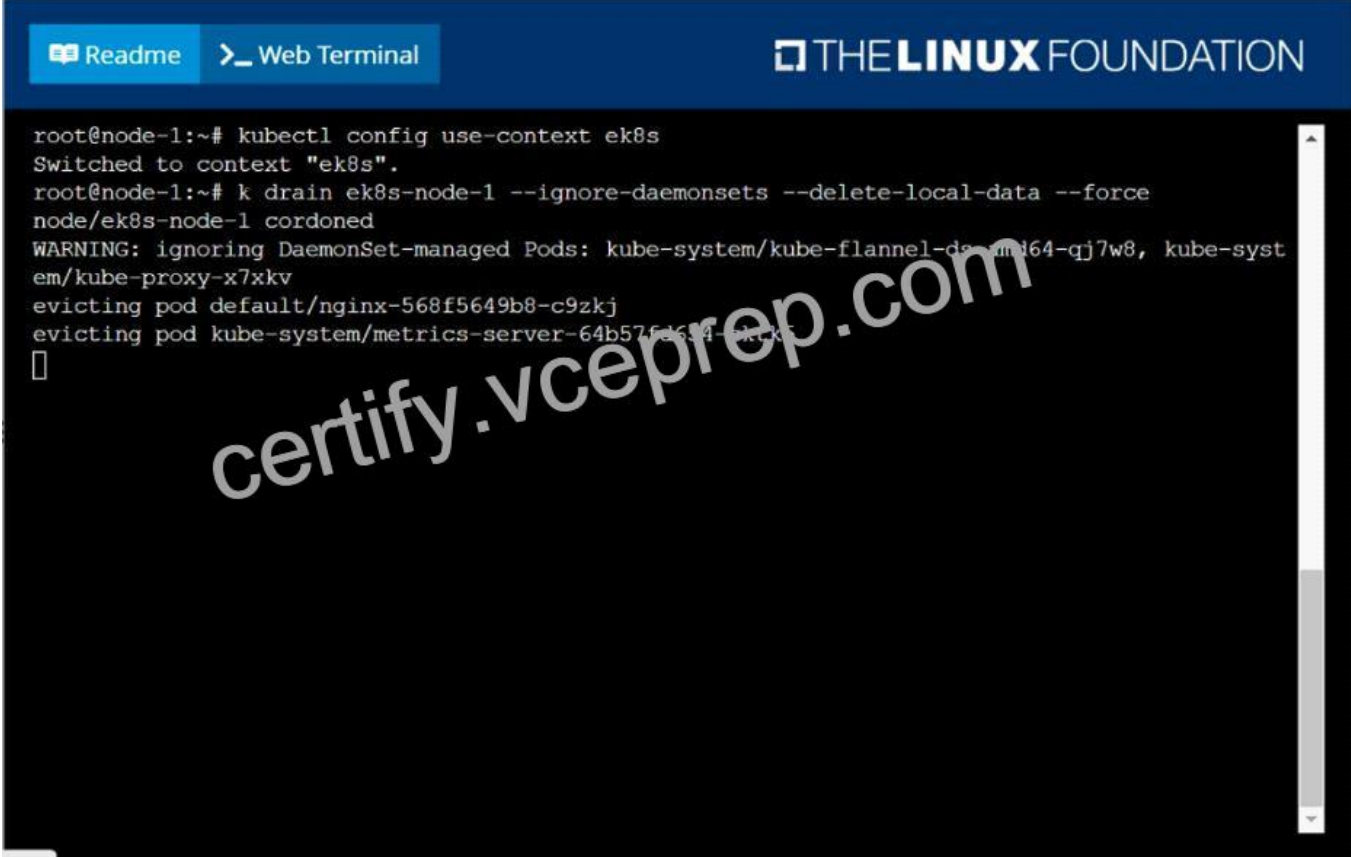
```
// exec into the pod
```

```
kubectl exec -it nginx &#8212; /bin/sh
```

```
// check the path
```

```
cd /etc/cfg
```

NO.24 Set the node named ek8s-node-1 as unavailable and reschedule all the pods running on it.
solution



The screenshot shows a web terminal window with a dark background. At the top, there are two buttons: 'Readme' and 'Web Terminal'. The title bar on the right says 'THE LINUX FOUNDATION'. The terminal output shows the following commands and results:

```
root@node-1:~# kubectl config use-context ek8s
Switched to context "ek8s".
root@node-1:~# k drain ek8s-node-1 --ignore-daemonsets --delete-local-data --force
node/ek8s-node-1 cordoned
WARNING: ignoring DaemonSet-managed Pods: kube-system/kube-flannel-ds-amd64-qj7w8, kube-system/kube-proxy-x7xkv
evicting pod default/nginx-568f5649b8-c9zkj
evicting pod kube-system/metrics-server-64b57f4614-4kxk
```

NO.25 Score: 4%



The screenshot shows a terminal window with a light background. The text reads:

```
Set configuration context:
[student@node-1] $ | kube
ctl config use-context e
k8s
```

Task

Set the node named ek8s-node-1 as unavailable and reschedule all the pods running on it.

SOLUTION:

```
[student@node-1] > ssh ek8s
```

```
kubectl cordon ek8s-node-1
```

```
kubectl drain ek8s-node-1 --delete-local-data --ignore-daemonsets --force
```

NO.26 Create a configmap called myconfigmap with literal value

```
appName=myapp
```

```
* kubectl create cm myconfigmap --from-literal=appName=myapp
```

```
// Verify
```

```
kubectl get cm -o yaml
```

(or)

```
kubectl describe cm
```

```
* kubectl create cm myconfigmap --from-literal=appName=myapp
```

```
// Verify
```

(or)

```
kubectl describe cm
```

NO.27 Create a redis pod, and have it use a non-persistent storage

Note: In exam, you will have access to kubernetes.io site,

Refer : <https://kubernetes.io/docs/tasks/configure-pod-container/configurevolume-storage/>

```
* apiVersion: v1
```

```
kind: Pod
```

```
metadata:
```

```
name: redis
```

```
spec:
```

```
containers:
```

```
-- name: redis
```

```
image: redis
```

```
volumeMounts:
```

```
-- name: redis-storage
```

```
mountPath: /data/redis
```


ports:

– containerPort: 6379

volumes:

– name: redis-storage

emptyDir: {}

* apiVersion: v1

kind: Pod

metadata:

name: redis

spec:

containers:

– name: redis

image: redis

volumeMounts:

– containerPort: 6379

volumes:

– name: redis-storage

emptyDir: {}

NO.28 Check the Image version of nginx-dev pod using jsonpath
See the solution below.

Explanation

```
kubect1 get po nginx-dev -o
```

```
jsonpath='{.spec.containers[].image}'&#8220;n&#8221;}&#8217;
```

NO.29 An Administrator is configuring Authentication Enforcement and they would like to create an exemption rule to exempt a specific group from authentication. Which authentication enforcement object should they select?

- * default-web-form
- * default-no-captive-port
- * default-browser-challenge

* default-authentication-bypass

NO.30 Create 2 nginx image pods in which one of them is labelled with env=prod and another one labelled with env=dev and verify the same.

* `kubectl run --generator=run-pod/v1 --image=nginx --labels=env=prod nginx-prod --dry-run -o yaml > nginx-prod-pod.yaml` Now, edit nginx-prod-pod.yaml file and remove entries like `creationTimestamp: null`; `dnsPolicy: ClusterFirst`; `vim nginx-prod-pod.yaml` `apiVersion: v1` kind: Pod metadata:

labels:

env: prod

name: nginx-prod

spec:

containers:

-- image: nginx

name: nginx-prod

restartPolicy: Always

`kubectl create -f nginx-prod-pod.yaml`

`kubectl run --generator=run-pod/v1 --image=nginx --`

`labels=env=dev nginx-dev --dry-run -o yaml > nginx-dev-pod.yaml`

`apiVersion: v1`

kind: Pod

metadata:

labels:

env: dev

name: nginx-dev

spec:

containers:

-- image: nginx

name: nginx-dev

restartPolicy: Always

```
# kubectl create -f nginx-prod-dev.yaml
```

Verify :

```
kubectl get po --show-labels
```

```
kubectl get po -l env=prod
```

```
kubectl get po -l env=dev
```

```
* kubectl run --generator=run-pod/v1 --image=nginx --labels=env=prod nginx-prod --dry-run -o yaml  
> nginx-prodpod.yaml Now, edit nginx-prod-pod.yaml file and remove entries like --creationTimestamp: null;  
--dnsPolicy: ClusterFirst; vim nginx-prod-pod.yaml apiVersion: v1 kind: Pod metadata:
```

labels:

env: prod

name: nginx-prod

spec:

containers:

-- image: nginx

name: nginx-prod

restartPolicy: Always

```
# kubectl create -f nginx-prod-pod.yaml
```

```
kubectl run --generator=run-pod/v1 --image=nginx --
```

```
labels=env=dev nginx-dev --dry-run -o yaml > nginx-dev-pod.yaml
```

```
apiVersion: v1
```

```
kind: Pod
```

```
metadata:
```

```
-- image: nginx
```

```
name: nginx-dev
```

```
restartPolicy: Always
```

```
# kubectl create -f nginx-prod-dev.yaml
```

Verify :

```
kubectl get po &#8211;show-labels
```

```
kubectl get po -l env=dev
```

NO.31 Monitor the logs of pod foo and:

* Extract log lines corresponding unable-to-access-website

* Write them to/opt/KULM00201/foo



See the solution below.

Explanation

solution

```
Readme Web Terminal THE LINUX FOUNDATION  
student@node-1:~$  
student@node-1:~$ sudo -i  
root@node-1:~# alias k=kubectl  
root@node-1:~#
```

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```
Readme Web Terminal THE LINUX FOUNDATION  
root@node-1:~# k logs foo | grep unable-to-access-website  
Thu Aug 27 05:25:28 UTC 2020 - ERROR - unable-to-access-website  
root@node-1:~# k logs foo | grep unable-to-access-website > /opt/KULM00201/foo  
root@node-1:~#
```

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NO.32 Score: 4%



Task

Check to see how many nodes are ready (not including nodes tainted NoSchedule) and write the number to /opt/KUSC00402/kusc00402.txt.

Solution:

```
kubectl describe nodes | grep ready|wc -l
```

```
kubectl describe nodes | grep -i taint | grep -i noschedule |wc -l
```

```
echo 3 > /opt/KUSC00402/kusc00402.txt
```

```
#
```

```
kubectl get node | grep -i ready |wc -l
```

```
# taints?noSchedule
```

```
kubectl describe nodes | grep -i taints | grep -i noschedule |wc -l
```

```
#
```

```
echo 2 > /opt/KUSC00402/kusc00402.txt
```

The Importance of CNCF CKA Certification Exam

The CNCF Certified Kubernetes Administrator exam will provide a great opportunity to those who want to be part of the

cloud-native revolution. The certification is a step closer towards the goal of becoming a certified engineer or operations professional. Management of infrastructure running in production environments with Kubernetes is a huge priority for enterprises today. Deploying Kubernetes on behalf of an enterprise will provide enormous value and cost savings. Advised to be prepared to take the CNCF Certified Kubernetes Administrator exam, candidates should know how to deploy, manage, and troubleshoot applications on Kubernetes clusters. **CNCF CKA exam dumps** will help the candidate in passing the CNCF Certified Kubernetes Administrator exam. Personally, it is a great deal. Check out the official study guide and practice as much as possible for the exam. Viewing and practicing as much as possible will increase the odds of passing the CNCF Certified Kubernetes Administrator exam. Start studying for the exam well in advance to avoid cramming before the exam. This will help relieve stress and help you to perform better.

Publish date of the content on the website is subject to change without notice. Role of the website is to offer candidates information about Brightwork. Master the content of the study guide and pass the certification exam. The worker role will be to apply the study guide knowledge to passing the CNCF Certified Kubernetes Administrator exam. Command of Kubernetes will also be crucial in playing a role in the successful management of applications on clusters. Stateful applications are deployed onto Kubernetes by using one of the available storage classes.

CNCF CKA Certification Exam Prep Materials

You can find the test materials that are available to help you prepare for the CNCF CKA Certification Exam. VCEPrep has the CNCF CKA Certification Exam questions and answers. There is a basic question and answer format to the materials. The competition has made this exam harder to pass, which means that students will need to be well prepared for it. A guarantee will be available to help you pass the CNCF CKA Certification Exam. **CNCF CKA exam dumps** have been prepared by experts to help students prepare for the CNCF CKA Certification Exam. Online certification exams will be required and must be completed before you can register for the exam. The materials that are available will only be found on the website. Support will be available if you have questions while you are studying for the CNCF CKA Certification Exam. The materials that are available will help you pass your exams without a problem. Study guides will help students study for the CNCF CKA Certification Exam. Updated information will be available to help students understand the concepts that they are learning about.

Self-paced study will be ideal for people who have busy schedules and can not spend a lot of time studying. Success in the exam will be guaranteed. Money back guarantee will be provided to help you make a decision on what to choose. Path will be available for the CNCF CKA Certification Exam. One of the ways students can make decisions is through having access to real time statistics. The CNCF CKA Certification Exam will determine whether you are successful or not. Security and confidentiality will be provided to help you succeed. The CNCF CKA Certification Exam can either be done online or in person. Ensure that the information you are studying for is right in order to get the right results. Pod will be available for the CNCF CKA Certification Exam. Networking will be available for the CNCF CKA Certification Exam. Service is important for the CNCF CKA Certification Exam.

Practice LATEST CKA Exam Updated 68 Questions: <https://www.vceprep.com/CKA-latest-vce-prep.html>