

Free Questions for CKAD by braindumpscollection

Shared by Roberts on 06-06-2022

For More Free Questions and Preparation Resources

Check the Links on Last Page

Question 1

Question Type: MultipleChoice

Exhibit:



Given a container that writes a log file in format A and a container that converts log files from format A to format B, create a deployment that runs both containers such that the log files from the first container are converted by the second container, emitting logs in format B.

Task:

- * Create a deployment named deployment-xyz in the default namespace, that:
- * Includes a primary

Ifccncf/busybox:1 container, named logger-dev

- * includes a sidecar lfccncf/fluentd:v0.12 container, named adapter-zen
- * Mounts a shared volume /tmp/log on both containers, which does not persist when the pod is deleted

* Instructs the logger-dev

container to run the command

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

which should output logs to /tmp/log/input.log in plain text format, with example values:

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

* The adapter-zen sidecar container should read /tmp/log/input.log and output the data to /tmp/log/output.* in Fluentd JSON format. Note that no knowledge of Fluentd is required to complete this task: all you will need to achieve this is to create the ConfigMap from the spec file provided at /opt/KDMC00102/fluentd-configma p.yaml, and mount that ConfigMap to /fluentd/etc in the adapter-zen sidecar container

Options:

A- Solution:

```
Readme >_ Web Terminal
```

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

Readme >_ Web Terminal

```
apiVersion: apps/v1
kind: Deployment
metadata:
   app: deployment-xyz
 name: deployment-xyz
     app: deployment-xyz
       app: deployment-xyz
     - image: lfccncf/busybox:1
       name: busybox
"deployment_xyz.yml" 24L, 434C
                                                                             3,1
                                                                                           All
```

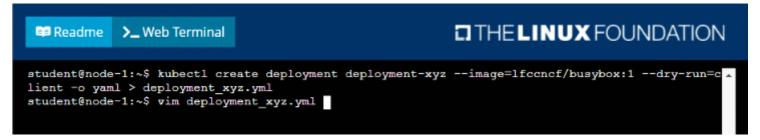
```
kind: Deployment
   app: deployment-xyz
 name: deployment-xyz
     app: deployment-xyz
       app: deployment-xyz
     - name: myvol1
      emptyDir: ()
     - image: lfccncf/busybox:1
       name: logger-dev
       - name: myvol1
         mountPath: /tmp/log
     - image: lfccncf/fluentd:v0.12
       name: adapter-zen
3 lines yanked
                                                                            27,22
                                                                                          Bot -
```

```
app: deployment-xyz
- name: myvol1
- name: myvol2
   name: logconf
- image: lfccncf/busybox:1
  name: logger-dev
  - name: myvol1
   mountPath: /tmp/log
- image: lfccncf/fluentd:v0.12
  name: adapter-zen
  - 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:~$ [
```

```
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
                                               53
deployment-xyz 0/1
student@node-1:~$ kubectl get deployment
               READY UP-TO-DATE AVAILABLE AGE
deployment-xyz 0/1
                                               95
student@node-1:~$ kubectl get deployment
                READY UP-TO-DATE AVAILABLE
deployment-xyz 1/1
                                               12s
student@node-1:~$
```

B- Solution:



```
apiVersion: apps/v1
kind: Deployment

#tadata:
    creationTimestamp: null
labels:
    app: deployment-xyz
spec:
    replicas: 1
    selector:
    matchLabels:
    app: deployment-xyz
strategy: {}
template:
    metadata:
    creationTimestamp: null
    labels:
    app: deployment-xyz
spec:
    containers:
    - image: lfcencf/busybox:1
    name: busybox
    resources: {}
status: {}

"deployment_xyz.yml" 24L, 434C
    3,1 All
```

```
kind: Deployment
   app: deployment-xyz
 name: deployment-xyz
     app: deployment-xyz
       app: deployment-xyz
     - name: myvol1
      emptyDir: ()
     - image: lfccncf/busybox:1
       name: logger-dev
       - name: myvol1
         mountPath: /tmp/log
     - image: lfccncf/fluentd:v0.12
       name: adapter-zen
3 lines yanked
                                                                            27,22
                                                                                          Bot -
```

```
app: deployment-xyz
- name: myvol1
- name: myvol2
   name: logconf
- image: lfccncf/busybox:1
  name: logger-dev
  - name: myvol1
   mountPath: /tmp/log
- image: lfccncf/fluentd:v0.12
  name: adapter-zen
  - 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
                READY UP-TO-DATE AVAILABLE
deployment-xyz 0/1
                       1
                                               53
student@node-1:~$ kubectl get deployment
                READY UP-TO-DATE AVAILABLE
                                               AGE
deployment-xyz 0/1
                                               95
student@node-1:~$ kubectl get deployment
               READY UP-TO-DATE AVAILABLE
deployment-xyz 1/1
                       1
                                               12s
student@node-1:~$
```

Answer:

Α

Question 2

Question Type: MultipleChoice

Exhibit:



Context

A project that you are working on has a requirement for persistent data to be available.

Task

To facilitate this, perform the following tasks:

- * Create a file on node sk8s-node-0 at /opt/KDSP00101/data/index.html with the content Acct=Finance
- * Create a PersistentVolume named task-pv-volume using hostPath and allocate 1Gi to it, specifying that the volume is at /opt/KDSP00101/data on the cluster's node. The configuration should specify the access mode of ReadWriteOnce . It should define the StorageClass name exam for the PersistentVolume , which will be used to bind PersistentVolumeClaim requests to this PersistenetVolume.

- * Create a PefsissentVolumeClaim named task-pv-claim that requests a volume of at least 100Mi and specifies an access mode of ReadWriteOnce
- * Create a pod that uses the PersistentVolmeClaim as a volume with a label app: my-storage-app mounting the resulting volume to a mountPath /usr/share/nginx/html inside the pod



Ensure that you return to the base node (with hostname node-1) once you have completed your work on sk8s-node-0 Ocopy

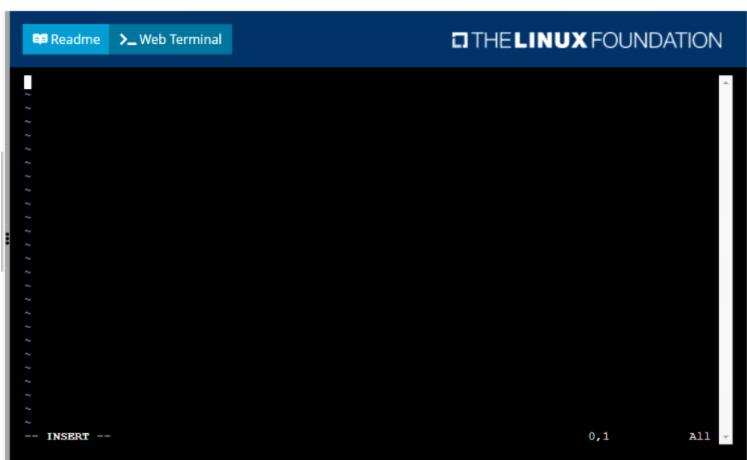
Options:

A- Solution:

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

```
THE LINUX FOUNDATION
            >_ Web Terminal
 Readme
 * 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:
 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
                                  IP address for cni0:
 Swap usage:
              08
                                                         10.244.1.1
 Processes:
 * 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:~$
```





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

```
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
                                                                                           STO
RAGECLASS REASON AGE
task-pv-volume 1Gi
                           RWO
                                          Retain
                                                          Bound
                                                                   default/task-pv-claim
rage
                    11s
student@sk8s-node-0:~$ kubectl get pvc
               STATUS
                        VOLUME
                                         CAPACITY
                                                   ACCESS MODES
                                                                  STORAGECLASS
                                                                                 AGE
task-pv-claim Bound
                        task-pv-volume
                                         1Gi
                                                    RWO
                                                                  storage
                                                                                 9s
student@sk8s-node-0:~$ vim pod.yml
```

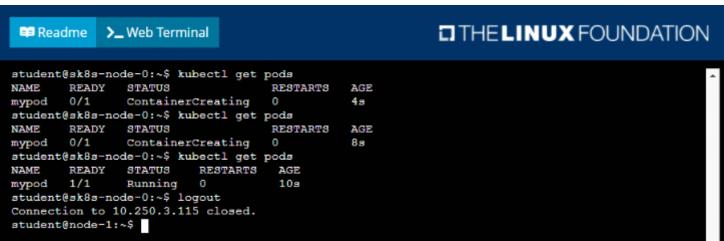
Readme >_ Web Terminal THE LINUX FOUNDATION apiVersion: v1 kind: Pod name: mypod app: my-storage-app - name: myfrontend image: nginx - mountPath: "/usr/share/nginx/html" name: mypod - name: mypod persistentVolumeClaim: claimName: task-pv-claim

All -

17,32

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



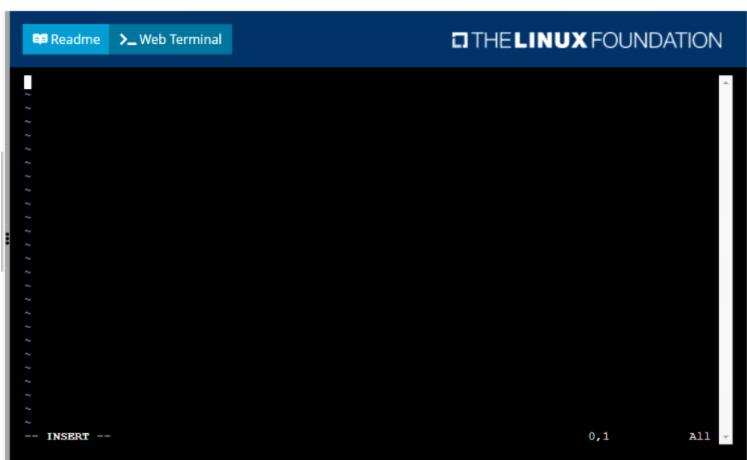


B- Solution:

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

```
THE LINUX FOUNDATION
            >_ Web Terminal
 Readme
 * 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:
 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
                                  IP address for cni0:
 Swap usage:
              08
                                                         10.244.1.1
 Processes:
 * 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:~$
```





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

```
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
                                                                                           STO
RAGECLASS REASON AGE
task-pv-volume 1Gi
                           RWO
                                          Retain
                                                          Bound
                                                                   default/task-pv-claim
rage
                    11s
student@sk8s-node-0:~$ kubectl get pvc
               STATUS
                        VOLUME
                                         CAPACITY
                                                   ACCESS MODES
                                                                  STORAGECLASS
                                                                                 AGE
task-pv-claim Bound
                        task-pv-volume
                                         1Gi
                                                    RWO
                                                                  storage
                                                                                 9s
student@sk8s-node-0:~$ vim pod.yml
```

Readme >_ Web Terminal THE LINUX FOUNDATION apiVersion: v1 kind: Pod name: mypod app: my-storage-app - name: myfrontend image: nginx - mountPath: "/usr/share/nginx/html" name: mypod - name: mypod persistentVolumeClaim: claimName: task-pv-claim

All -

17,32

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

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

Answer:

Α

Question 3

Question Type: MultipleChoice

Exhibit:

```
Set configuration context:

[student@node-1] $ | kubectl configuration context dk8s
```

Context

A user has reported an aopticauon is unteachable due to a failing livenessProbe .

Task

Perform the following tasks:

* Find the broken pod and store its name and namespace to /opt/KDOB00401/broken.txt in the format:



The output file has already been created

- * Store the associated error events to a file /opt/KDOB00401/error.txt, The output file has already been created. You will need to use the o wide output specifier with your command
- * Fix the issue.

The associated deployment could be running in any of the following namespaces:

- qa
- test
- production
- alan

Options:

A- Solution:

Create the Pod:

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

Within 30 seconds, view the Pod events:

kubectl describe pod liveness-exec

The output indicates that no liveness probes have failed yet:

FirstSeen LastSeen Count From SubobjectPath Type Reason Message

24s 24s 1 {default-scheduler } Normal Scheduled Successfully assigned liveness-exec to worker0

23s 23s 1 {kubelet worker0} spec.containers{liveness} Normal Pulling pulling image 'gcr.io/google_containers/busybox'

23s 23s 1 {kubelet worker0} spec.containers{liveness} Normal Pulled Successfully pulled image 'gcr.io/google_containers/busybox'

23s 23s 1 {kubelet worker0} spec.containers{liveness} Normal Created Created container with docker id 86849c15382e;

Security:[seccomp=unconfined]

23s 23s 1 {kubelet worker0} spec.containers{liveness} Normal Started Started container with docker id 86849c15382e

After 35 seconds, view the Pod events again:

kubectl describe pod liveness-exec

At the bottom of the output, there are messages indicating that the liveness probes have failed, and the containers have been killed and recreated.

FirstSeen LastSeen Count From SubobjectPath Type Reason Message

37s 37s 1 {default-scheduler } Normal Scheduled Successfully assigned liveness-exec to worker0

36s 36s 1 {kubelet worker0} spec.containers{liveness} Normal Pulling pulling image 'gcr.io/google_containers/busybox'

36s 36s 1 {kubelet worker0} spec.containers{liveness} Normal Pulled Successfully pulled image 'gcr.io/google_containers/busybox'

36s 36s 1 {kubelet worker0} spec.containers{liveness} Normal Created Created container with docker id 86849c15382e;

Security:[seccomp=unconfined]

36s 36s 1 {kubelet worker0} spec.containers{liveness} Normal Started Started container with docker id 86849c15382e

2s 2s 1 {kubelet worker0} spec.containers{liveness} Warning Unhealthy Liveness probe failed: cat: can't open '/tmp/healthy': No such file or directory

Wait another 30 seconds, and verify that the Container has been restarted:

kubectl get pod liveness-exec

The output shows that RESTARTS has been incremented:

NAME READY STATUS RESTARTS AGE

liveness-exec 1/1 Running 1 m

B- Solution:

Create the Pod:

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

Within 30 seconds, view the Pod events:

kubectl describe pod liveness-exec

The output indicates that no liveness probes have failed yet:

FirstSeen LastSeen Count From SubobjectPath Type Reason Message

24s 24s 1 {default-scheduler } Normal Scheduled Successfully assigned liveness-exec to worker0

23s 23s 1 {kubelet worker0} spec.containers{liveness} Normal Pulling pulling image 'gcr.io/google_containers/busybox'

kubectl describe pod liveness-exec

At the bottom of the output, there are messages indicating that the liveness probes have failed, and the containers have been killed and recreated.

FirstSeen LastSeen Count From SubobjectPath Type Reason Message

37s 37s 1 {default-scheduler } Normal Scheduled Successfully assigned liveness-exec to worker0

36s 36s 1 {kubelet worker0} spec.containers{liveness} Normal Pulling pulling image 'gcr.io/google_containers/busybox'

36s 36s 1 {kubelet worker0} spec.containers{liveness} Normal Pulled Successfully pulled image 'gcr.io/google_containers/busybox'

36s 36s 1 {kubelet worker0} spec.containers{liveness} Normal Created Created container with docker id 86849c15382e;

Security:[seccomp=unconfined]

36s 36s 1 {kubelet worker0} spec.containers{liveness} Normal Started Started container with docker id 86849c15382e 2s 2s 1 {kubelet worker0} spec.containers{liveness} Warning Unhealthy Liveness probe failed: cat: can't open '/tmp/healthy': No such file or directory

Wait another 30 seconds, and verify that the Container has been restarted:

kubectl get pod liveness-exec

The output shows that RESTARTS has been incremented:

NAME READY STATUS RESTARTS AGE

liveness-exec 1/1 Running 1 m

Λ	n	CI	A/	Δ	r	
А		2	W	ᆫ		i

Α

Question 4

Question Type: MultipleChoice

Exhibit:



Task

You have rolled out a new pod to your infrastructure and now you need to allow it to communicate with the web and storage pods but nothing else. Given the running pod kdsn00201 -newpod edit it to use a network policy that will allow it to send and receive traffic only to and from the web and storage pods.

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.

Options:			
A- Pending			_
Answer:			

Δ

Question 5

Question Type: MultipleChoice

Exhibit:



Task

A deployment is falling on the cluster due to an incorrect image being specified. Locate the deployment, and fix the problem.

Options:

A- Pending

Answer:

Α

Question 6

Question Type: MultipleChoice

Exhibit:



Context

Developers occasionally need to submit pods that run periodically.

Task

Follow the steps below to create a pod that will start at a predetermined time and]which runs to completion only once each time it is started:

- * Create a YAML formatted Kubernetes manifest /opt/KDPD00301/periodic.yaml that runs the following shell command: date in a single busybox container. The command should run every minute and must complete within 22 seconds or be terminated oy Kubernetes. The Cronjob namp and container name should both be hello
- * Create the resource in the above manifest and verify that the job executes successfully at least once

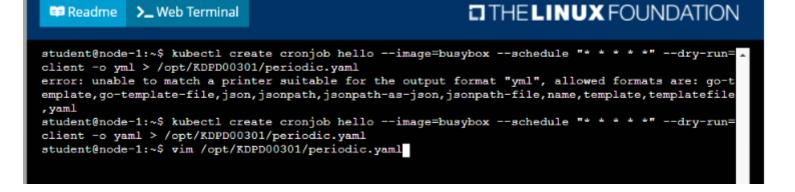
Options:

A- Solution:



Readme >_ Web Terminal THE LINUX FOUNDATION student@node-1:~\$ kubectl create cronjob hello --image=busybox --schedule "* * * * * --dry-run= _ client -o yml > /opt/KDPD00301/periodic.yaml error: unable to match a printer suitable for the output format "yml", allowed formats are: qo-t emplate, go-template-file, json, jsonpath, jsonpath-as-json, jsonpath-file, name, template, templatefile 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 SCHEDULE SUSPEND ACTIVE LAST SCHEDULE AGE hello */1 * * * * False 65 <none> student@node-1:~\$ \[

B- Solution:



```
THE LINUX FOUNDATION
Readme >_ Web Terminal
apiVersion: batch/vlbeta1
kind: CronJob
 name: hello
     name: hello
       image: busybox
         name: hello
        args: ["/bin/sh","-c","date"]
restartPolicy: Never
 concurrencyPolicy: Allow
                                                                         19,26
                                                                                      All -
```

Answer:

To Get Premium Files for CKAD Visit

https://www.p2pexams.com/products/ckad

For More Free Questions Visit

https://www.p2pexams.com/linux-foundation/pdf/ckad

