

Linux-Foundation

Exam Questions CKA

Certified Kubernetes Administrator (CKA) Program



NEW QUESTION 1

Create a deployment spec file that will:

- > Launch 7 replicas of the nginx image with the label app_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.

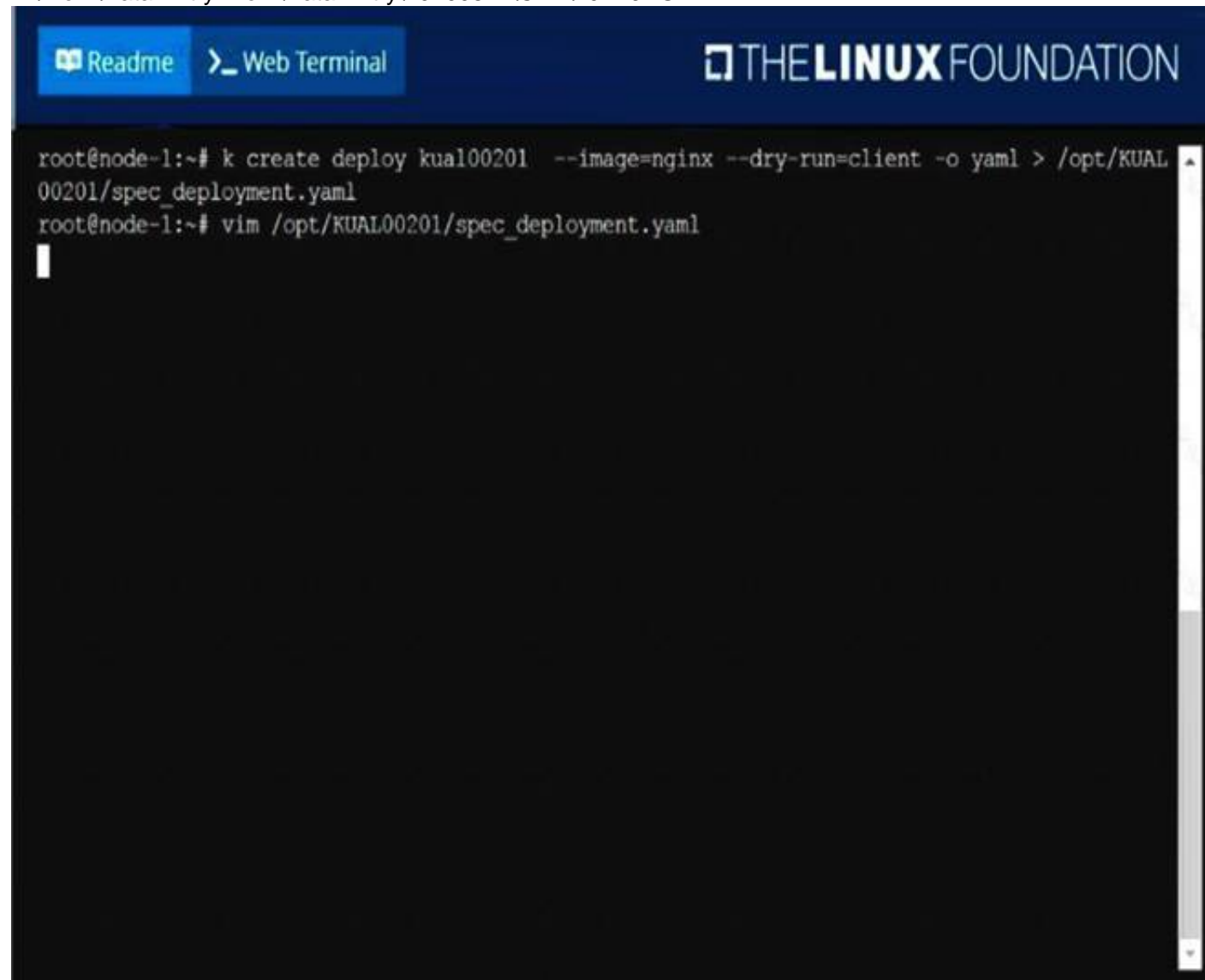
- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

solution

F:\Work\Data Entry Work\Data Entry\20200827\CKA\10 B.JPG



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

```
root@node-1:~# k create deploy kual00201 --image=nginx --dry-run=client -o yaml > /opt/KUAL00201/spec_deployment.yaml
root@node-1:~# vim /opt/KUAL00201/spec_deployment.yaml
```

The vim editor is open, showing a blank file with a cursor at the first line.

F:\Work\Data Entry Work\Data Entry\20200827\CKA\10 C.JPG



```

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
    spec:
      containers:
      - image: nginx
        name: nginx
  ~
  ~
  ~
  ~
  ~
"/opt/KUAL00201/spec_deployment.yaml" 19L, 320C written

```

NEW QUESTION 2

Create a deployment as follows:

- > Name:nginx-app
- > Using containernginxwithversion 1.11.10-alpine
- > The deployment should contain3replicas

Next, deploy the application with newversion1.11.13-alpine, byperforming a rolling update.

Finally, rollback that update to theprevious version1.11.10-alpine.

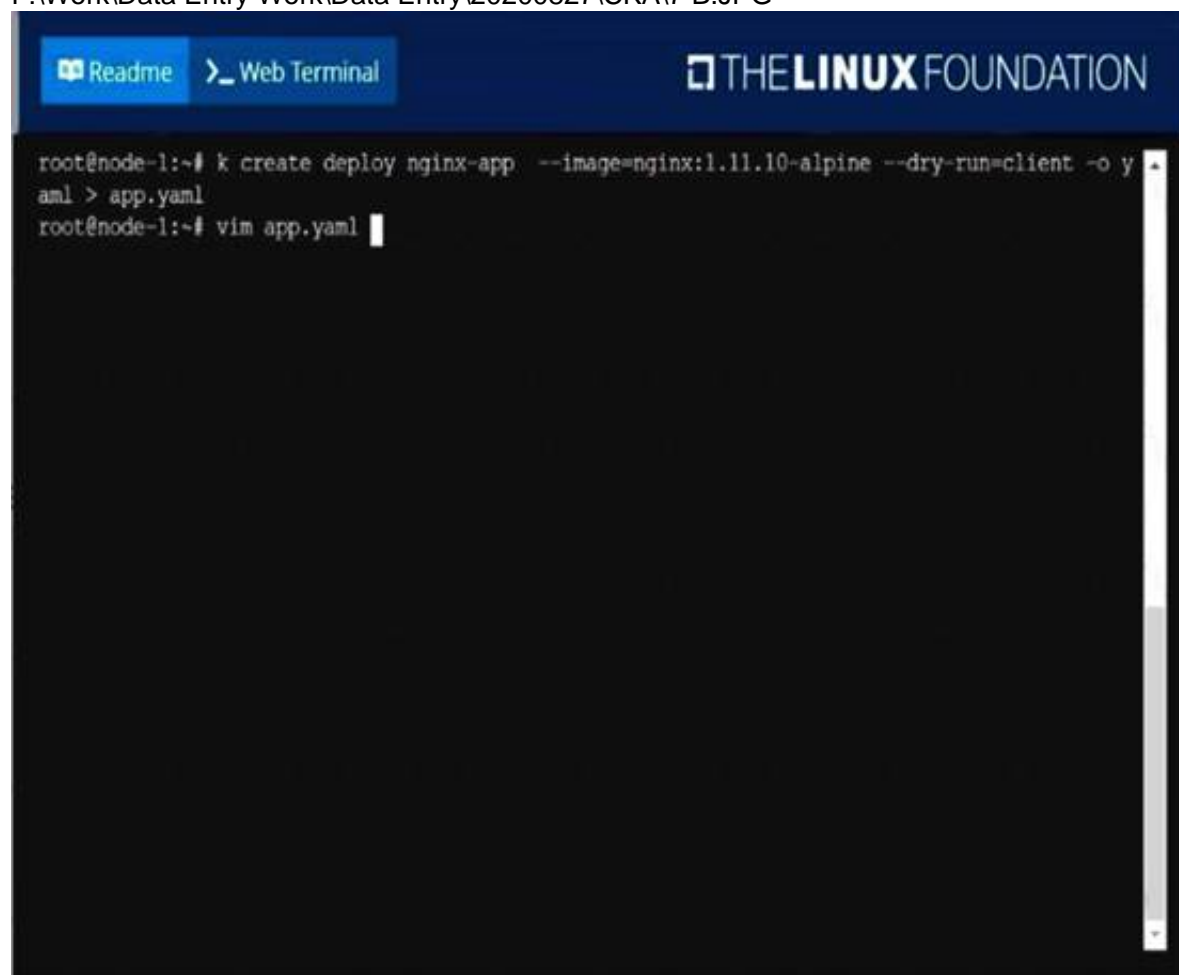
- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

solution

F:\Work\Data Entry Work\Data Entry\20200827\CKA\7 B.JPG

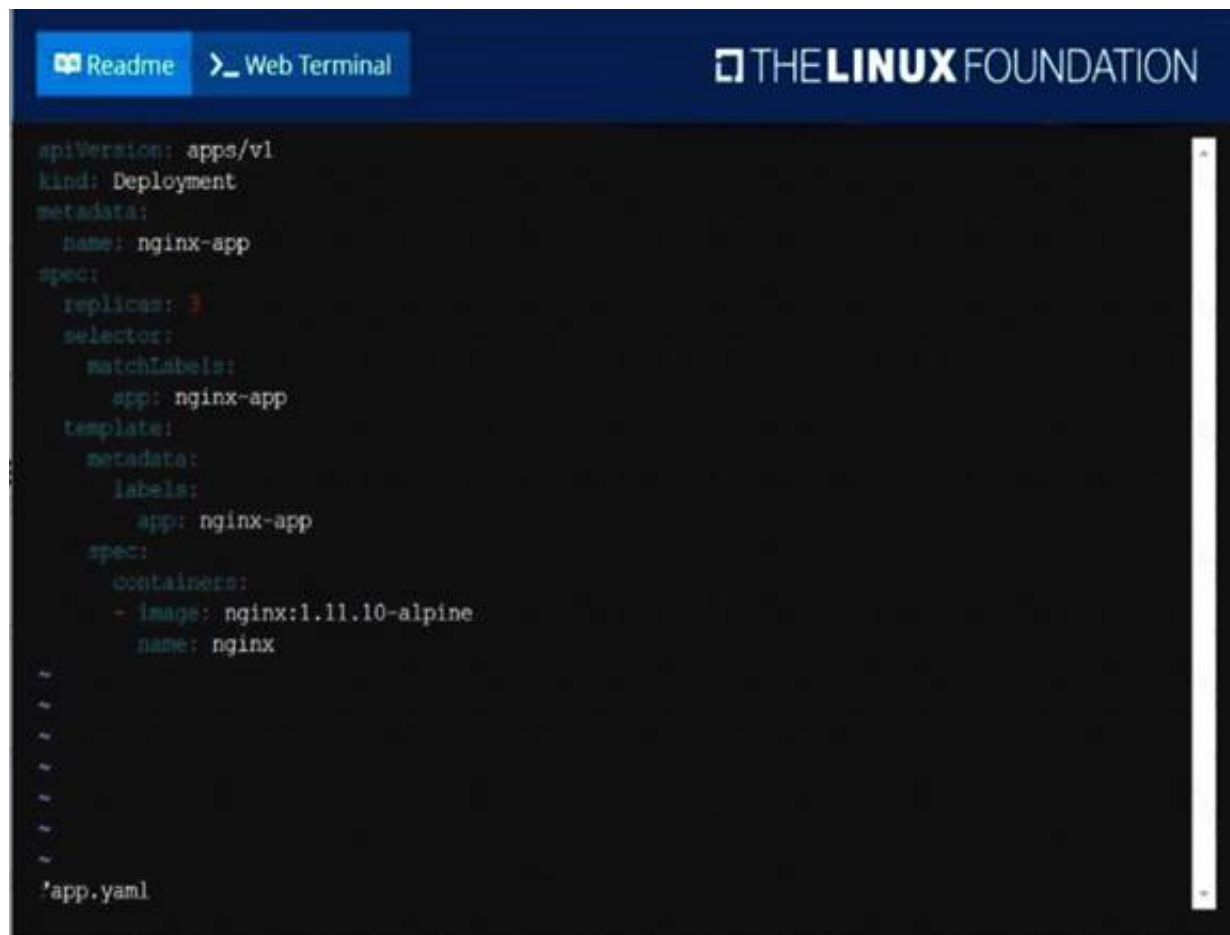


```

root@node-1:~# k create deploy nginx-app --image=nginx:1.11.10-alpine --dry-run=client -o y
aml > app.yaml
root@node-1:~# vim app.yaml

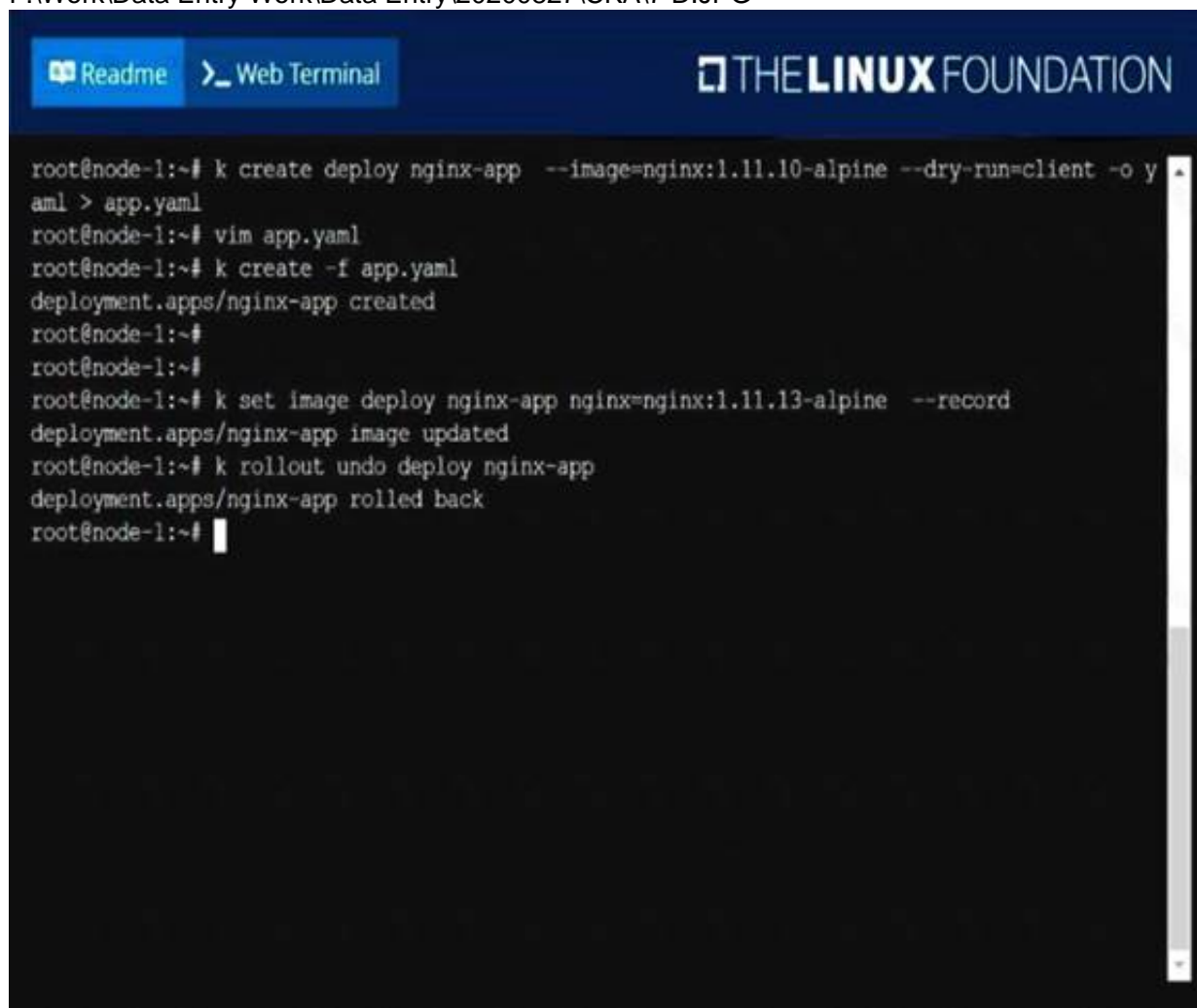
```

F:\Work\Data Entry Work\Data Entry\20200827\CKA\7 C.JPG



```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: nginx-app
spec:
  replicas: 3
  selector:
    matchLabels:
      app: nginx-app
  template:
    metadata:
      labels:
        app: nginx-app
    spec:
      containers:
      - image: nginx:1.11.10-alpine
        name: nginx
```

F:\Work\Data Entry Work\Data Entry\20200827\CKA\7 D.JPG



```
root@node-1:~# k create deploy nginx-app --image=nginx:1.11.10-alpine --dry-run=client -o y
aml > app.yaml
root@node-1:~# vim app.yaml
root@node-1:~# k create -f app.yaml
deployment.apps/nginx-app created
root@node-1:~#
root@node-1:~#
root@node-1:~# k set image deploy nginx-app nginx=nginx:1.11.13-alpine --record
deployment.apps/nginx-app image updated
root@node-1:~# k rollout undo deploy nginx-app
deployment.apps/nginx-app rolled back
root@node-1:~#
```

NEW QUESTION 3

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

- A. Mastered
- B. Not Mastered


Answer: A

Explanation:

solution

F:\Work\Data Entry Work\Data Entry\20200827\CKA\19 B.JPG

Readme
Web Terminal



```

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-64b57fd654-cktk5

```

NEW QUESTION 4

Create a persistent volume with name `app-data`, of capacity `2Gi` and access mode `ReadWriteMany`. The type of volume is `hostPath` and its location is `/srv/app-data`.

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

solution

Persistent Volume

A persistent volume is a piece of storage in a Kubernetes cluster. Persistent Volumes are a cluster-level resource like nodes, which don't belong to any namespace. It is provisioned by the administrator and has a particular file size. This way, a developer deploying their app on Kubernetes need not know the underlying infrastructure. When the developer needs a certain amount of persistent storage for their application, the system administrator configures the cluster so that they consume the Persistent Volume provisioned in an easy way.

Creating Persistent Volume

```
kind: PersistentVolume
apiVersion: v1
metadata:
  name: app-data
spec:
  capacity: # defines the capacity of PV we are creating
  storage: 2Gi # the amount of storage we are trying to claim
  accessModes: # defines the rights of the volume we are creating
  - ReadWriteMany
  hostPath:
    path: "/srv/app-data" # path to which we are creating the volume
```

Challenge

➤ Create a Persistent Volume named `app-data`, with access mode `ReadWriteMany`, storage class name `shared`, `2Gi` of storage capacity and the host path `/srv/app-data`.

```
apiVersion: v1
kind: PersistentVolume
metadata:
  name: app-data
spec:
  capacity:
    storage: 2Gi
  accessModes:
    - ReadWriteMany
  hostPath:
    path: /srv/app-data
  storageClassName: shared
```

"app-data.yaml" 12L, 194C

* 2. Save the file and create the persistent volume. Image for post

```
njerry191@cloudshell:~ (extreme-clone-265411)$ kubectl create -f pv.yaml
persistentvolume/pv created
```

* 3. View the persistent volume.

```
njerry191@cloudshell:~ (extreme-clone-265411)$ kubectl get pv
```

NAME	CAPACITY	ACCESS MODES	RECLAIM POLICY	STATUS	CLAIM	STORAGECLASS	REASON	AGE
app-data	2Gi	RWX	Retain	Available		shared		31s

> Our persistent volume status is available meaning it is available and it has not been mounted yet. This status will change when we mount the persistentVolume to a persistentVolumeClaim.

PersistentVolumeClaim

In a real ecosystem, a system admin will create the PersistentVolume then a developer will create a PersistentVolumeClaim which will be referenced in a pod. A PersistentVolumeClaim is created by specifying the minimum size and the access mode they require from the persistentVolume.

Challenge

> Create a Persistent Volume Claim that requests the Persistent Volume we had created above. The claim should request 2Gi. Ensure that the Persistent Volume Claim has the same storageClassName as the persistentVolume you had previously created.

```
kind: PersistentVolumeClaim
apiVersion: v1
metadata:
  name: app-data
spec:
  accessModes:
    - ReadWriteMany
  resources:
    requests:
      storage: 2Gi
  storageClassName: shared
```

* 2. Save and create the pvc

```
njerry191@cloudshell:~(extreme-clone-265411)$ kubectl create -f app-data.yaml persistentvolumeclaim/app-data created
```

* 3. View the pvc Image for post

```
njerry191@cloudshell:~ (extreme-clone-265411)$ kubectl get pvc
```

NAME	STATUS	VOLUME	CAPACITY	ACCESS MODES	STORAGECLASS
pv	Bound	pv	512m	RWX	shared

* 4. Let's see what has changed in the pv we had initially created.

Image for post

```
njerry191@cloudshell:~ (extreme-clone-265411)$ kubectl get pv
```

NAME	CAPACITY	ACCESS MODES	RECLAIM POLICY	STATUS	CLAIM	STORAGECLASS	REASON	AGE
pv	512m	RWX	Retain	Bound	default/pv	shared		16m

Our status has now changed from available to bound.

* 5. Create a new pod named myapp with image nginx that will be used to Mount the Persistent Volume Claim with the path /var/app/config.

Mounting a Claim

```
apiVersion: v1
kind: Pod
metadata:
  creationTimestamp: null
  name: app-data
spec:
  volumes:
    - name: config
  persistentVolumeClaim:
    claimName: app-data
  containers:
    - image: nginx
      name: app
      volumeMounts:
        - mountPath: "/srv/app-data"
          name: config
```

NEW QUESTION 5

List all the pods sorted by name

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

kubect1 get pods --sort-by=.metadata.name

NEW QUESTION 6

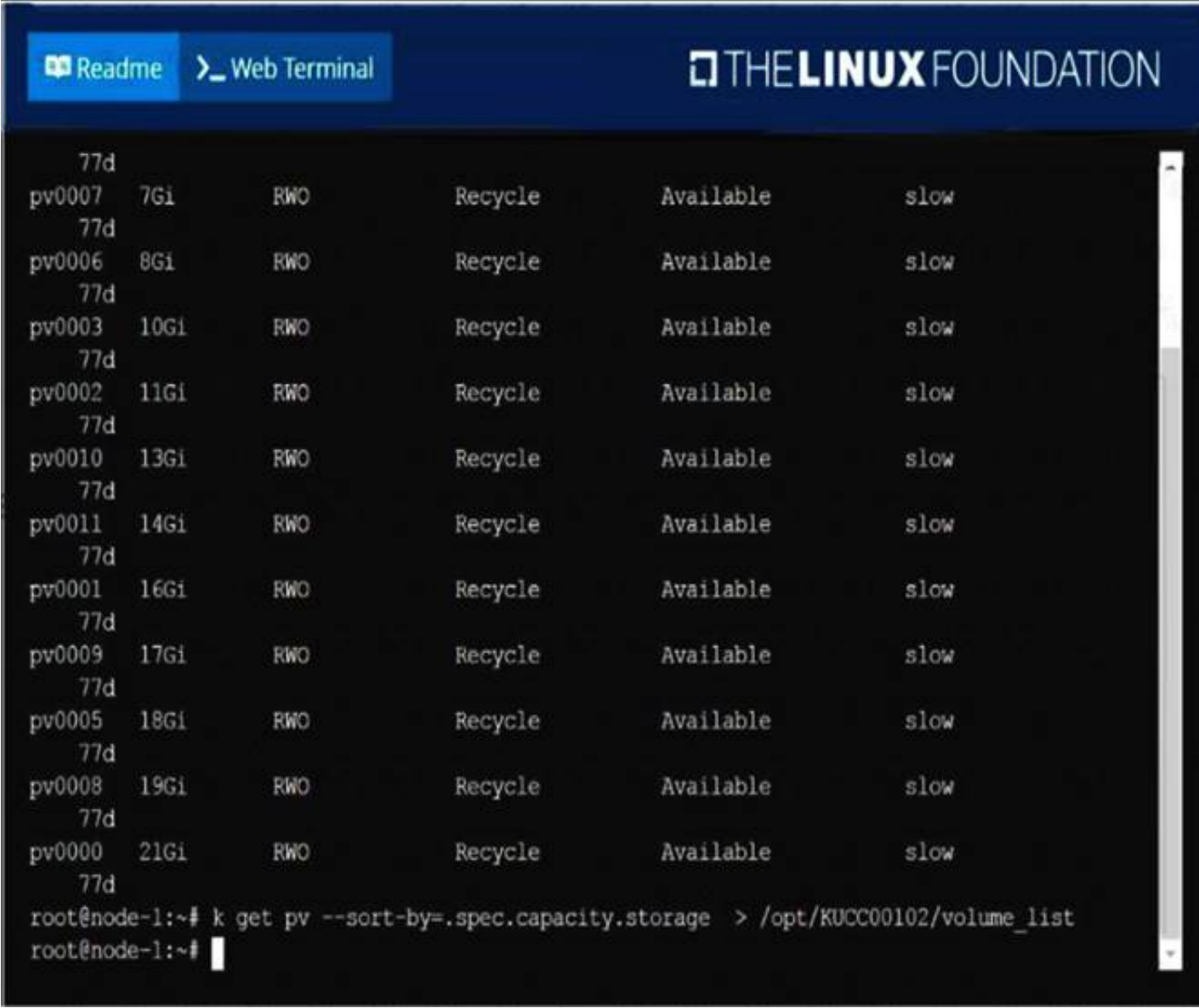
List all persistent volumes sorted bycapacity, saving the fullkubectloutput to /opt/KUCC00102/volume_list. Usekubectl's own functionality forsorting the output, and do not manipulate it any further.

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

solution
F:\Work\Data Entry Work\Data Entry\20200827\CKA\2 C.JPG



NEW QUESTION 7

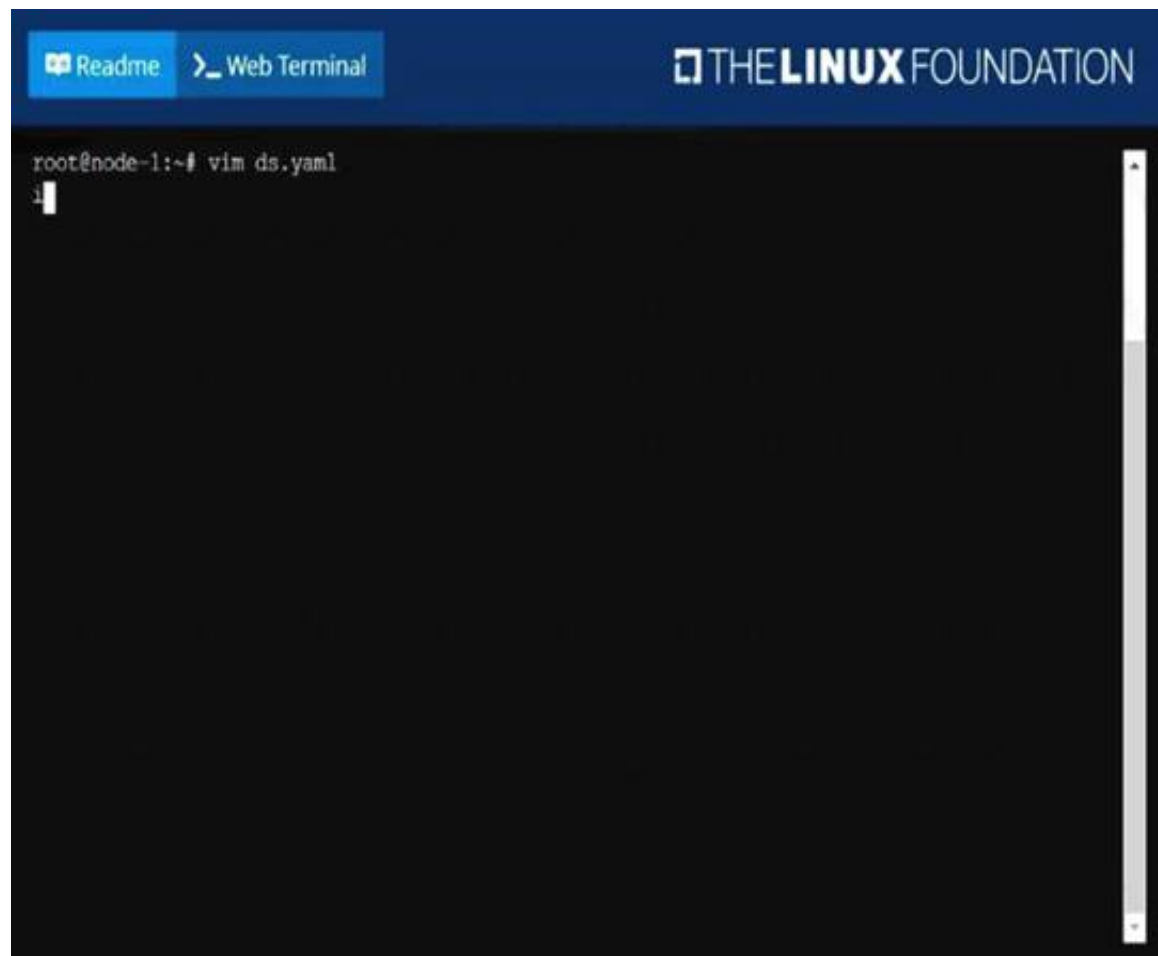
Ensure a single instance of podnginxis running on each node of theKubernetes cluster wherenginxalso represents the Image name whichhas to be used. Do not override anytaints currently in place. UseDaemonSetto complete thistask and useds-kusc00201asDaemonSet name.

- A. Mastered
- B. Not Mastered

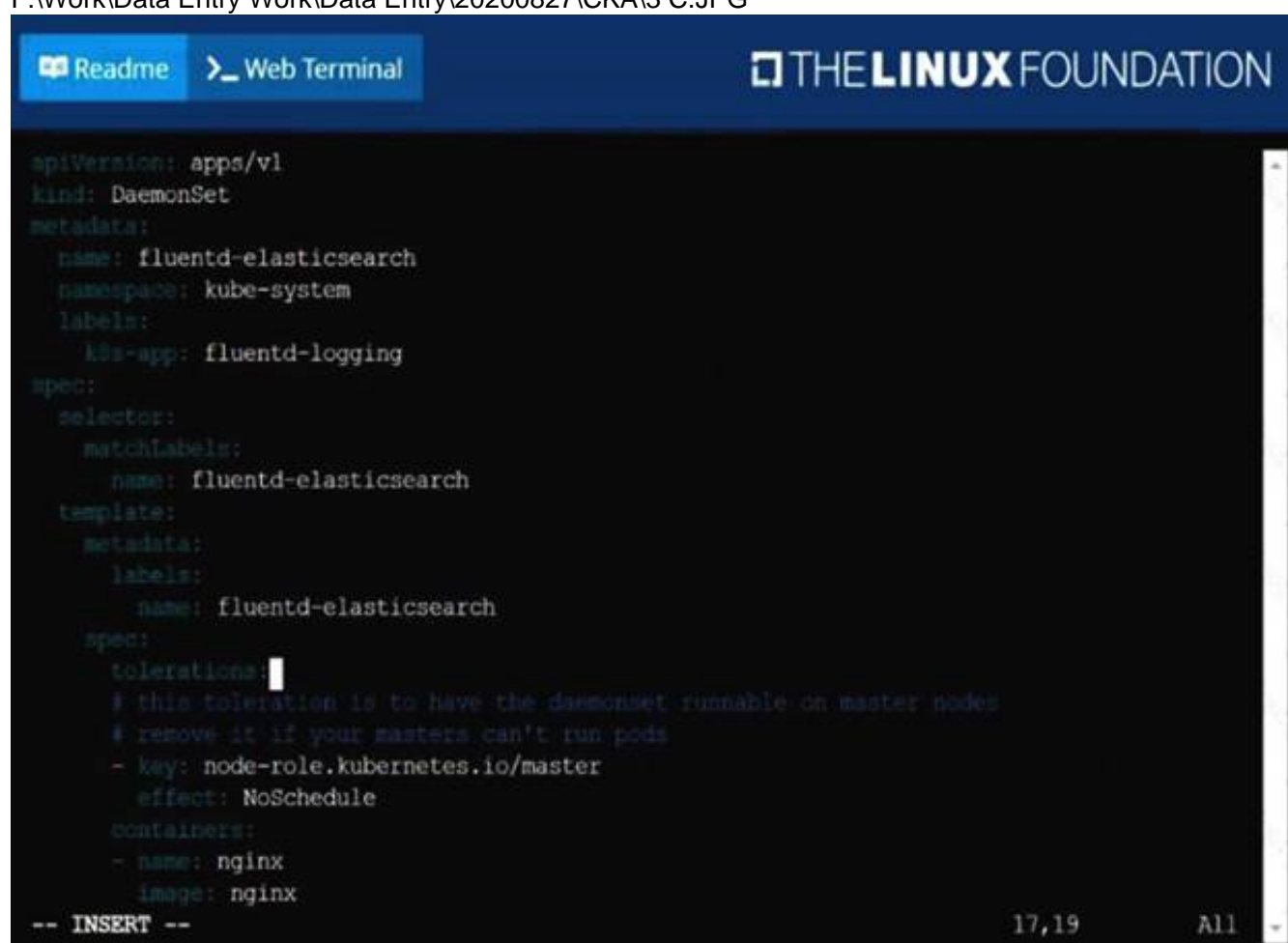
Answer: A

Explanation:

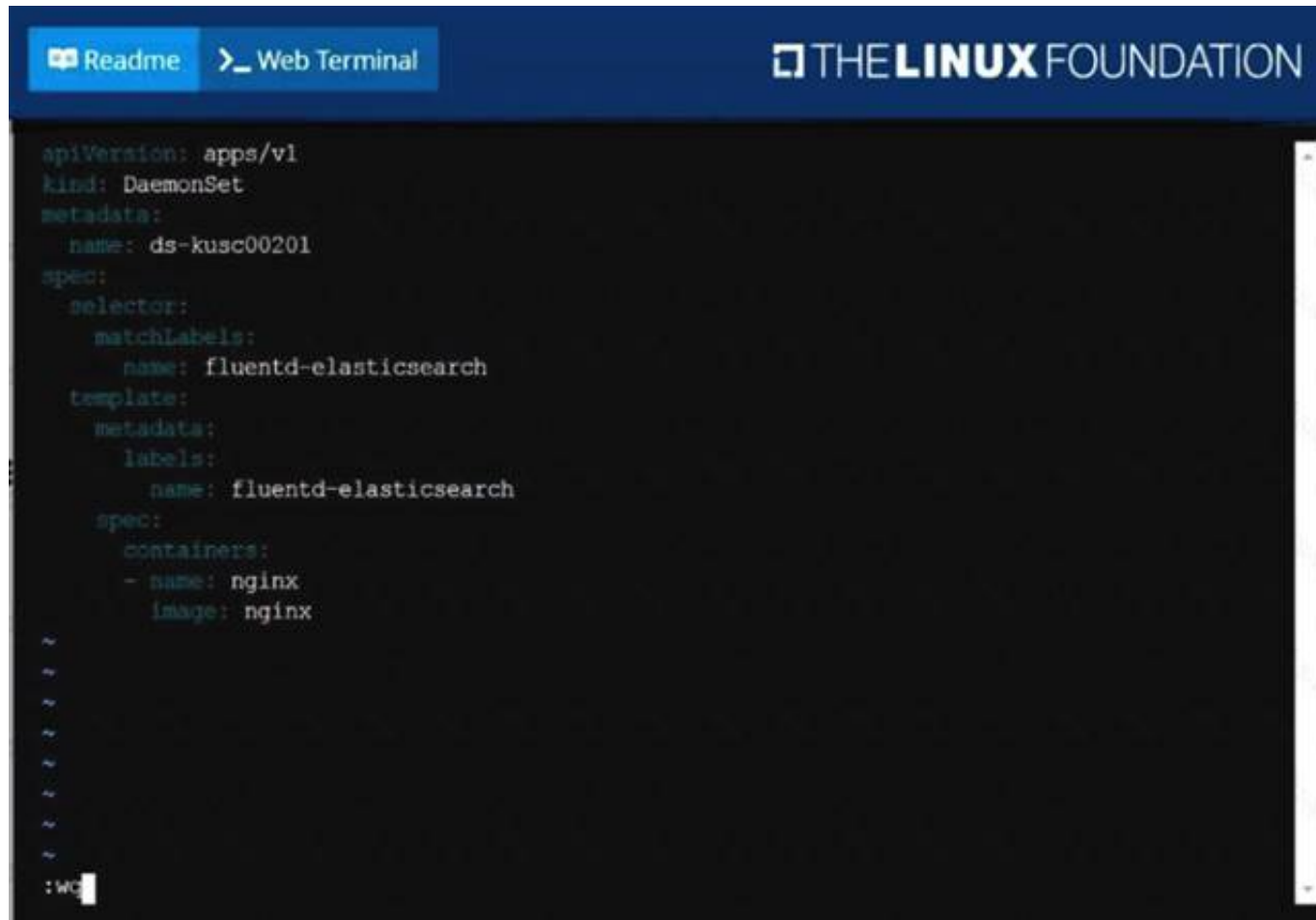
solution
F:\Work\Data Entry Work\Data Entry\20200827\CKA\3 B.JPG



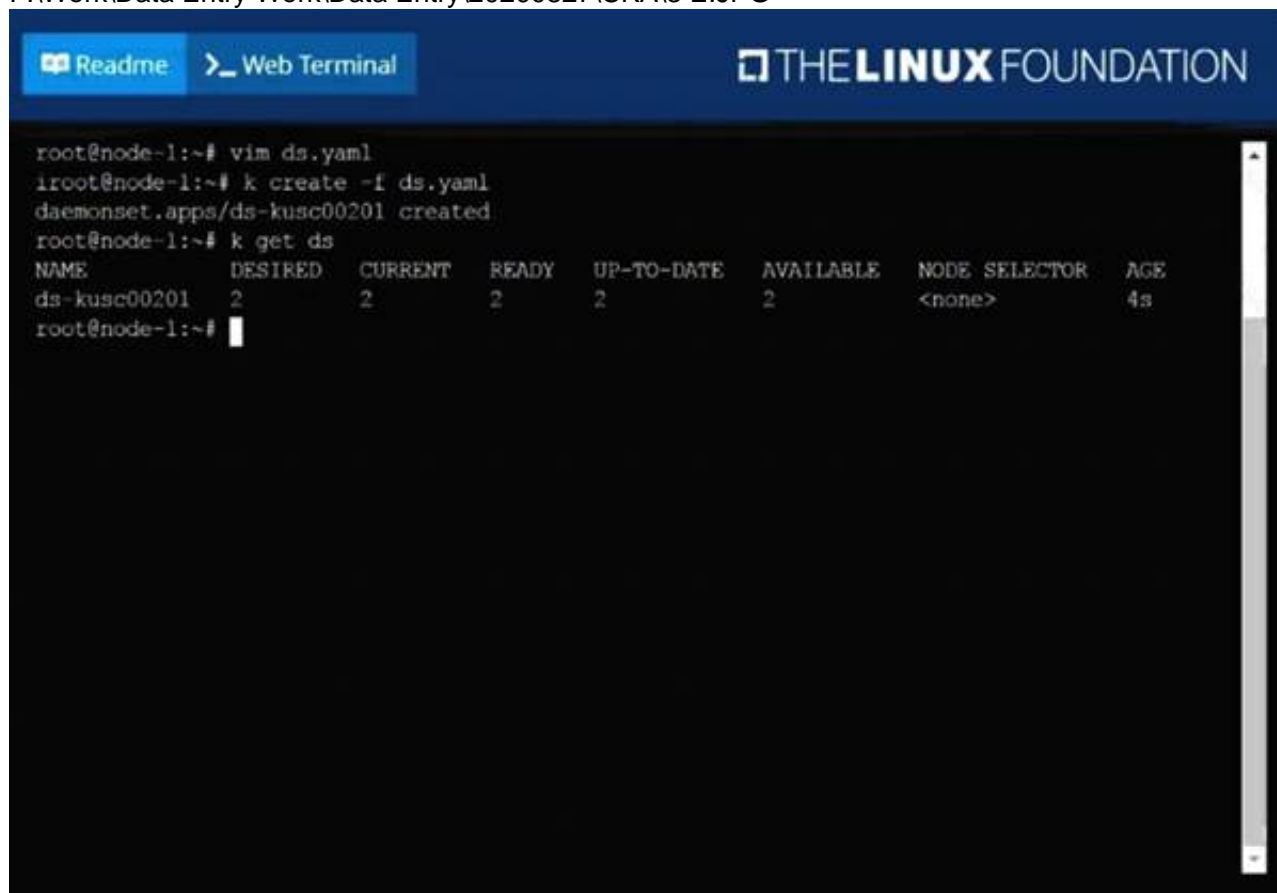
F:\Work\Data Entry Work\Data Entry\20200827\CKA\3 C.JPG



F:\Work\Data Entry Work\Data Entry\20200827\CKA\3 D.JPG



F:\Work\Data Entry Work\Data Entry\20200827\CKA\3 E.JPG



NEW QUESTION 8

Create a file:

```
/opt/KUCC00302/kucc00302.txtthatlists all pods that implement servicebazin namespacedevelopment.
```

The format of the file should be onepod name per line.

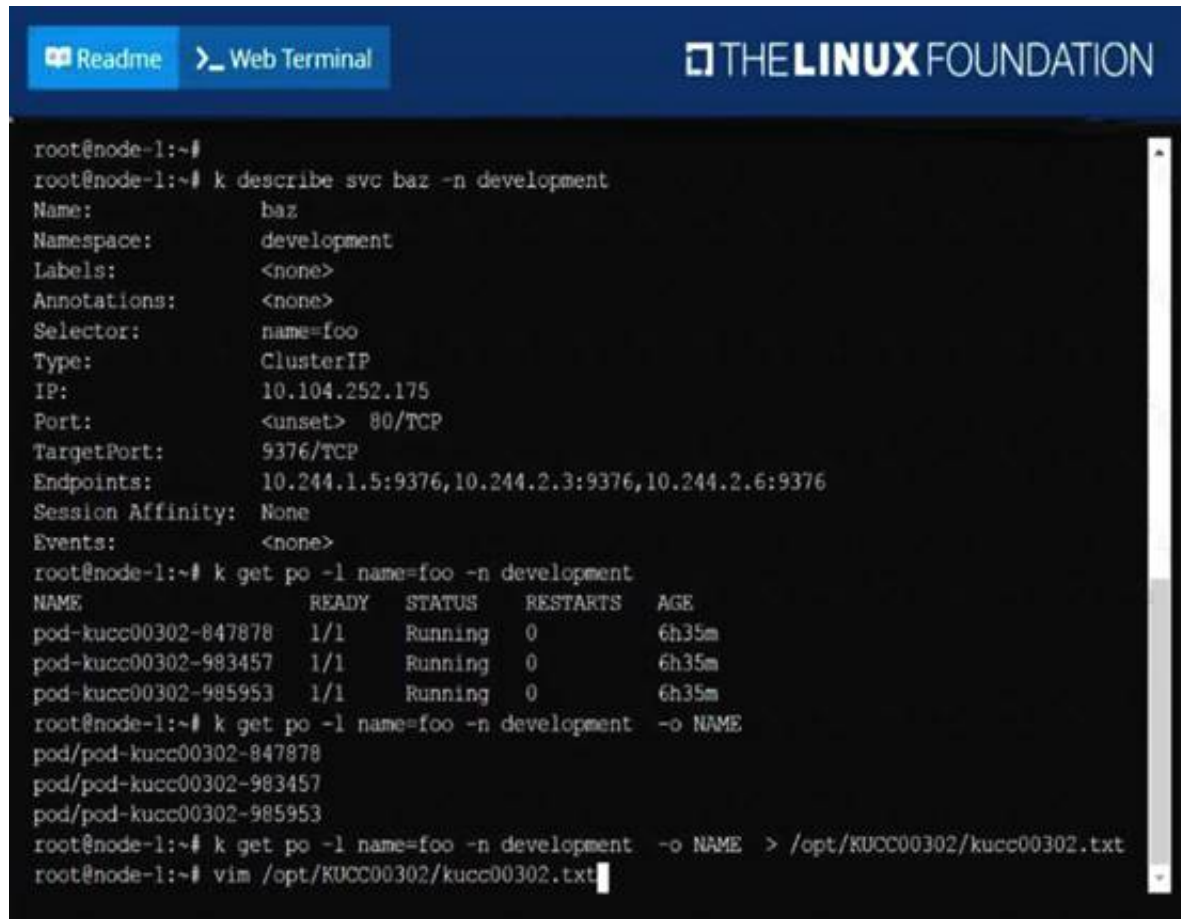
- A. Mastered
B. Not Mastered

Answer: A

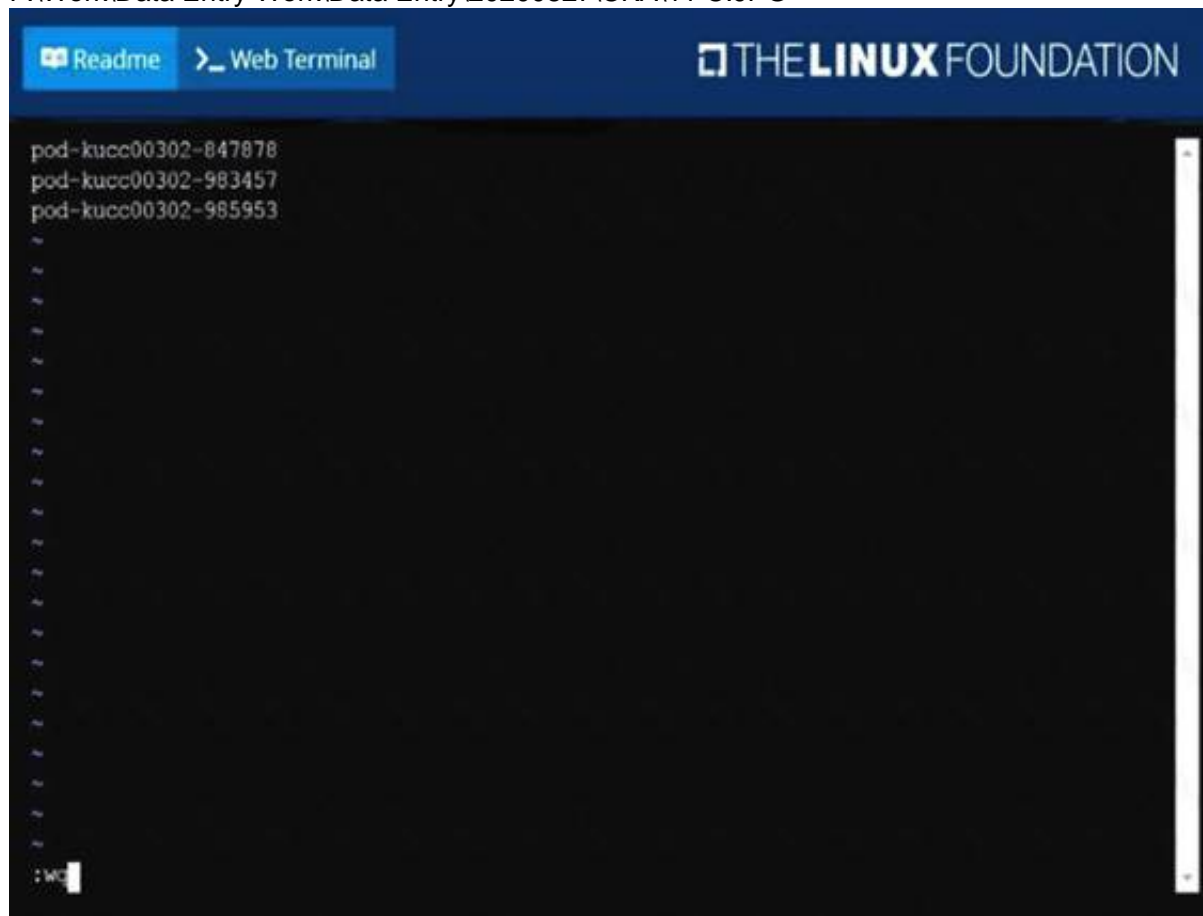
Explanation:

solution

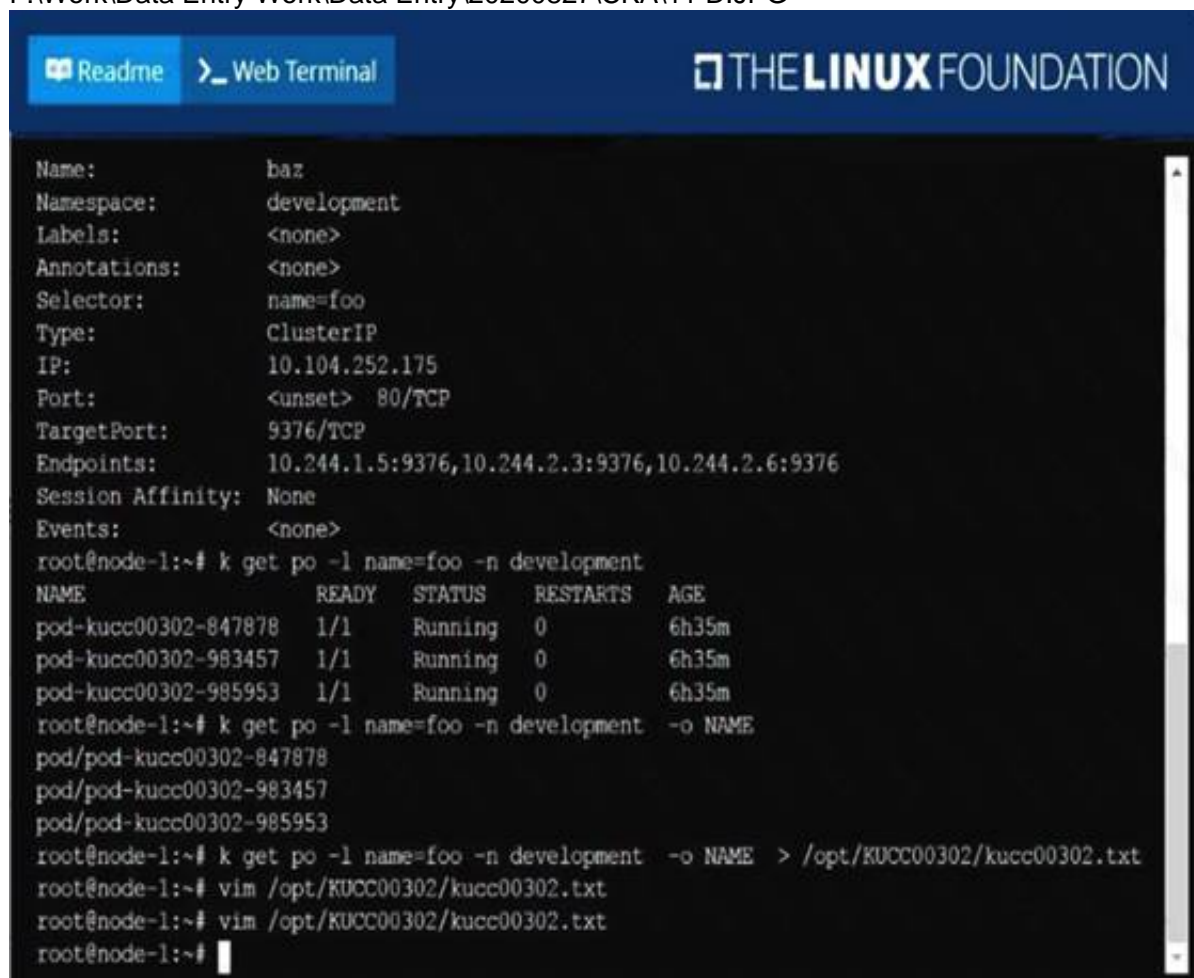
F:\Work\Data Entry Work\Data Entry\20200827\CKA\11 B.JPG



F:\Work\Data Entry Work\Data Entry\20200827\CKA\11 C.JPG



F:\Work\Data Entry Work\Data Entry\20200827\CKA\11 D.JPG



NEW QUESTION 9

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 super-secret at /secrets.

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

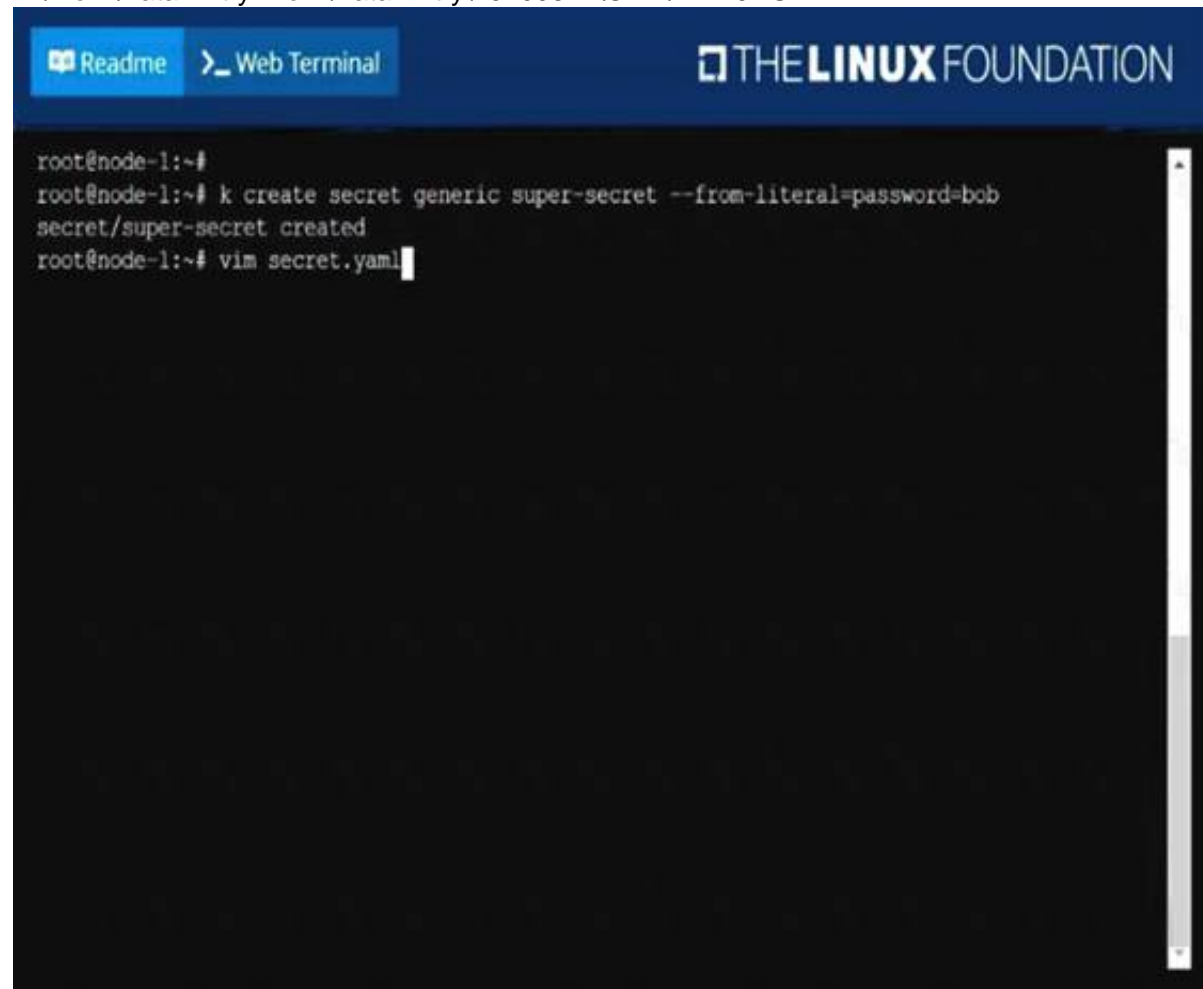
- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

solution

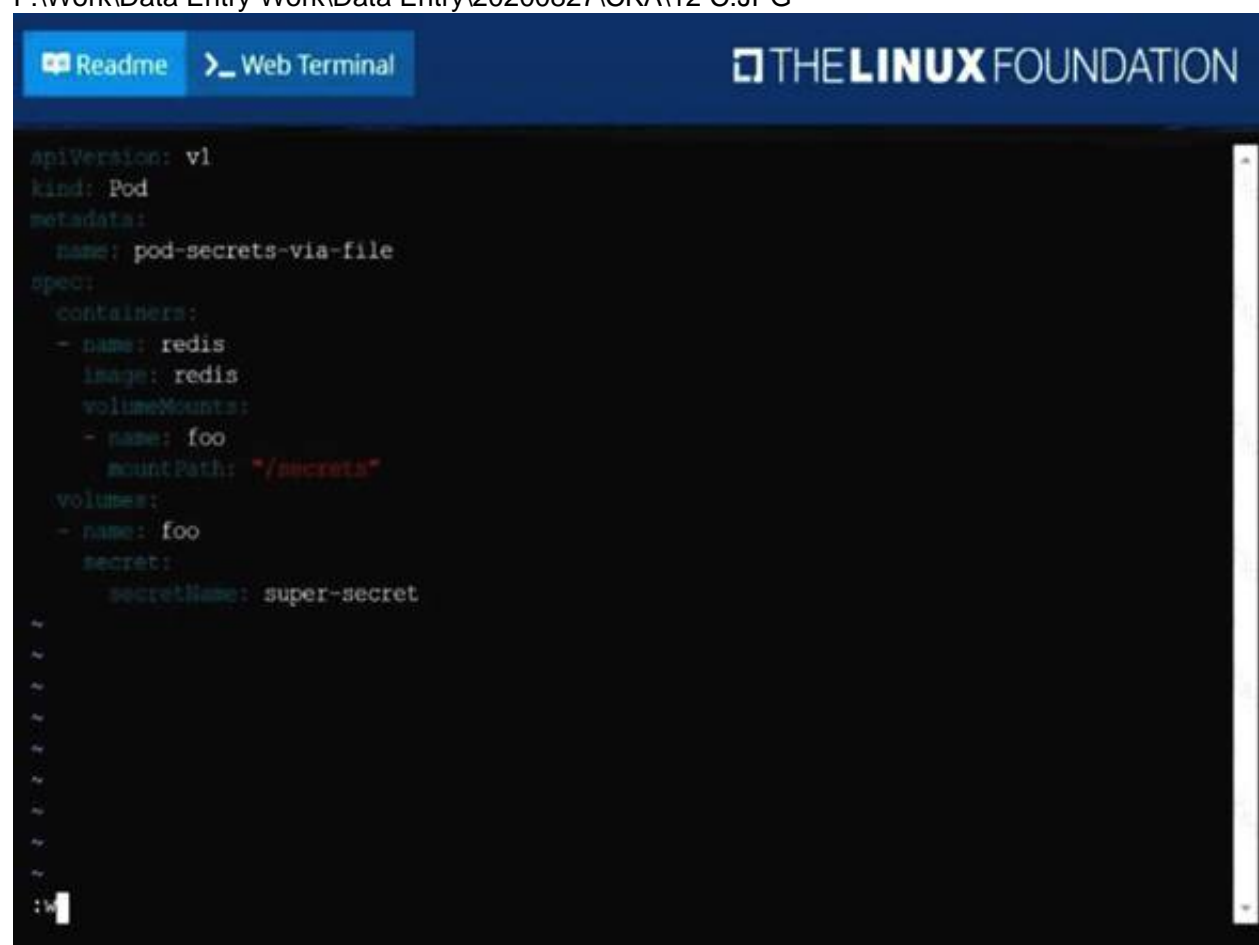
F:\Work\Data Entry Work\Data Entry\20200827\CKA\12 B.JPG



```

root@node-1:~#
root@node-1:~# k create secret generic super-secret --from-literal=password=bob
secret/super-secret created
root@node-1:~# vim secret.yaml
  
```

F:\Work\Data Entry Work\Data Entry\20200827\CKA\12 C.JPG



```

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
  
```

F:\Work\Data Entry Work\Data Entry\20200827\CKA\12 D.JPG

Readme

Web Terminal

THE 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-kiqb9a                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-gl2kh         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-t479l         1/1     Running   0           6h43m
root@node-1:~#
```

NEW QUESTION 10

Perform the following tasks:

- > Add an init container tohungry-bear(which has beendefined in spec file /opt/KUCC00108/pod-spec-KUCC00108.yaml)
- > The init container should createan empty file named/workdir/calm.txt
- > If/workdir/calm.txtis notdetected, the pod should exit
- > Once the spec file has beenupdatedwith the init containerdefinition, the pod should becreated

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

solution

F:\Work\Data Entry Work\Data Entry\20200827\CKA\4 B.JPG

ReadmeWeb Terminal

THELINUX 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   NODE SELECTOR   AGE
ds-kusc00201    2         2         2       2            2           <none>          4s
root@node-1:~# vim /opt/KUCC00108/pod-spec-KUCC00108.yaml
```

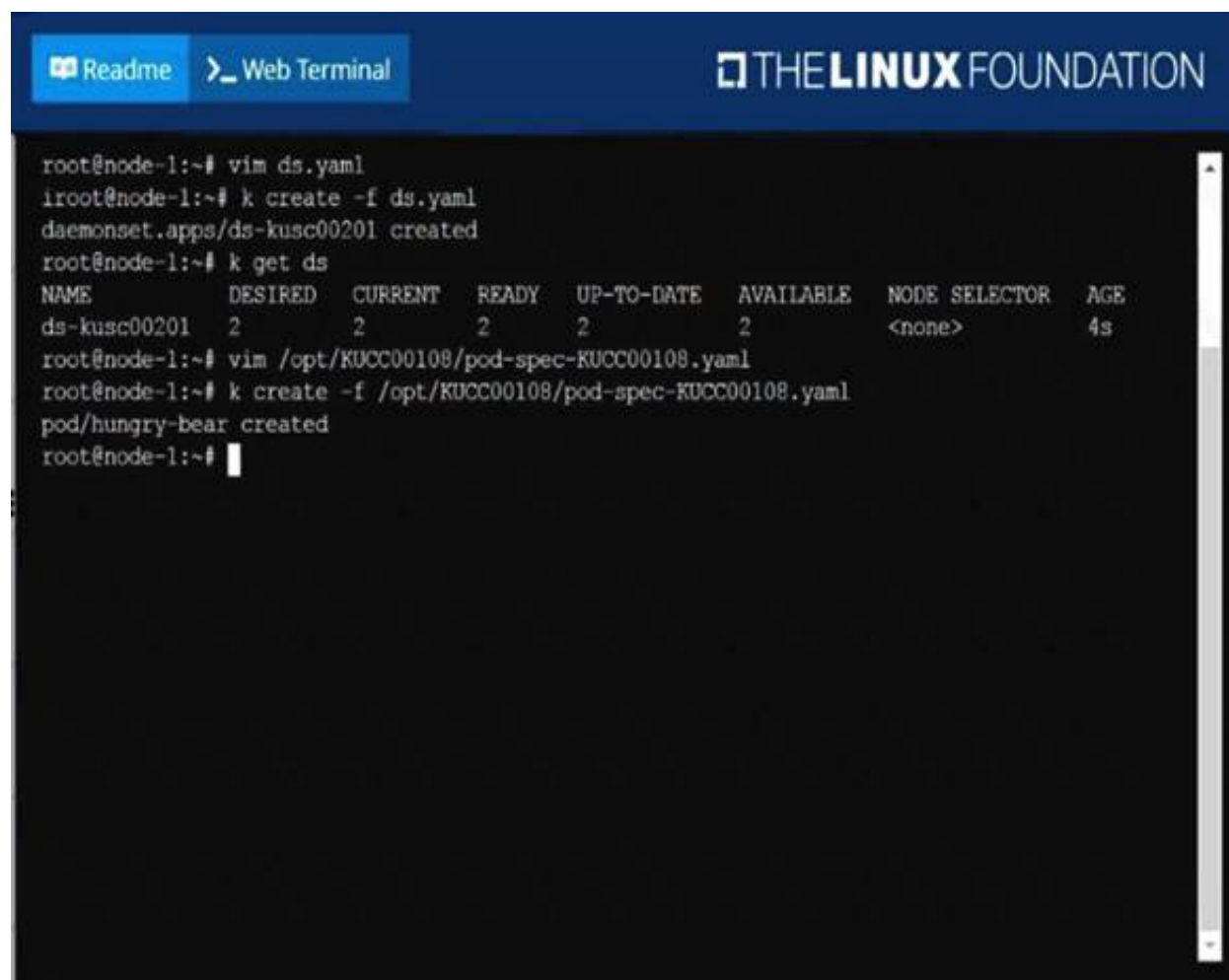
F:\Work\Data Entry Work\Data Entry\20200827\CKA\4 C.JPG

ReadmeWeb Terminal

THELINUX FOUNDATION

```
apiVersion: v1
kind: Pod
metadata:
  name: hungry-bear
spec:
  volumes:
  - name: workdir
    emptyDir: {}
  containers:
  - name: checker
    image: alpine
    command: ["/bin/sh", "-c", "if [ -f /workdir/calm.txt ];
      then sleep 100000; else exit 1; fi"]
    volumeMounts:
    - name: workdir
      mountPath: /workdir
  initContainers:
  - name: create
    image: alpine
    command: ["/bin/sh", "-c", "touch /workdir/calm.txt"]
    volumeMounts:
    - name: workdir
      mountPath: /workdir
:WQ
```

F:\Work\Data Entry Work\Data Entry\20200827\CKA\4 D.JPG



```
root@node-1:~# vim ds.yaml
root@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  NODE SELECTOR  AGE
ds-kusc00201  2        2        2      2           2          <none>         4s
root@node-1:~# vim /opt/KUCC00108/pod-spec-KUCC00108.yaml
root@node-1:~# k create -f /opt/KUCC00108/pod-spec-KUCC00108.yaml
pod/hungry-bear created
root@node-1:~#
```

NEW QUESTION 10

Create and configure the service front-end-services so it's accessible through NodePort and routes to the existing pod named front-end.

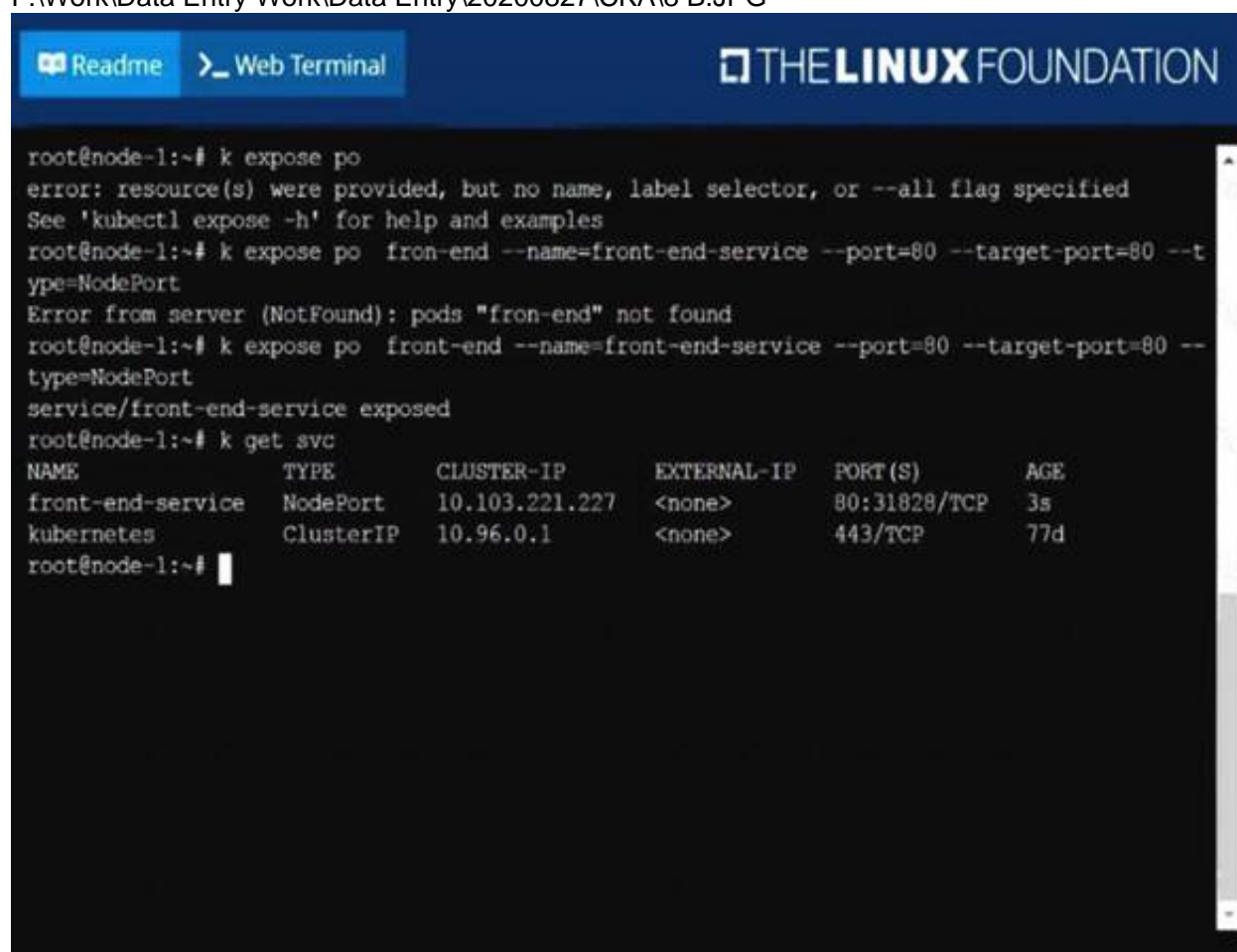
- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

solution

F:\Work\Data Entry Work\Data Entry\20200827\CKA\8 B.JPG



```
root@node-1:~# k expose po
error: resource(s) were provided, but no name, label selector, or --all flag specified
See 'kubectl expose -h' for help and examples
root@node-1:~# k expose po  fron-end --name=front-end-service --port=80 --target-port=80 --t
ype=NodePort
Error from server (NotFound): pods "fron-end" not found
root@node-1:~# k expose po  front-end --name=front-end-service --port=80 --target-port=80 --
type=NodePort
service/front-end-service exposed
root@node-1:~# k get svc
NAME             TYPE        CLUSTER-IP      EXTERNAL-IP  PORT(S)          AGE
front-end-service NodePort    10.103.221.227  <none>       80:31828/TCP     3s
kubernetes       ClusterIP   10.96.0.1       <none>       443/TCP          77d
root@node-1:~#
```

NEW QUESTION 11

List all the pods showing name and namespace with a json path expression

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

kubectl get pods -o=jsonpath="{.items[*]['metadata.name', 'metadata.namespace']}"

NEW QUESTION 16

Create a pod that having 3 containers in it? (Multi-Container)

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

image=nginx, image=redis, image=consul Name nginx container as ??nginx-container?? Name redis container as ??redis-container?? Name consul container as ??consul-container??

Create a pod manifest file for a container and append container section for rest of the images

kubectrl run multi-container --generator=run-pod/v1 --image=nginx -- dry-run -o yaml > multi-container.yaml

then

vim multi-container.yaml apiVersion: v1

kind: Pod metadata: labels:

run: multi-container name: multi-container spec:

containers:

- image: nginx

name: nginx-container

- image: redis

name: redis-container

- image: consul

name: consul-container

restartPolicy: Always

NEW QUESTION 17

Check to see how many worker nodes are ready (not including nodes taintedNoSchedule) and write the number to/opt/KUCC00104/kucc00104.txt.

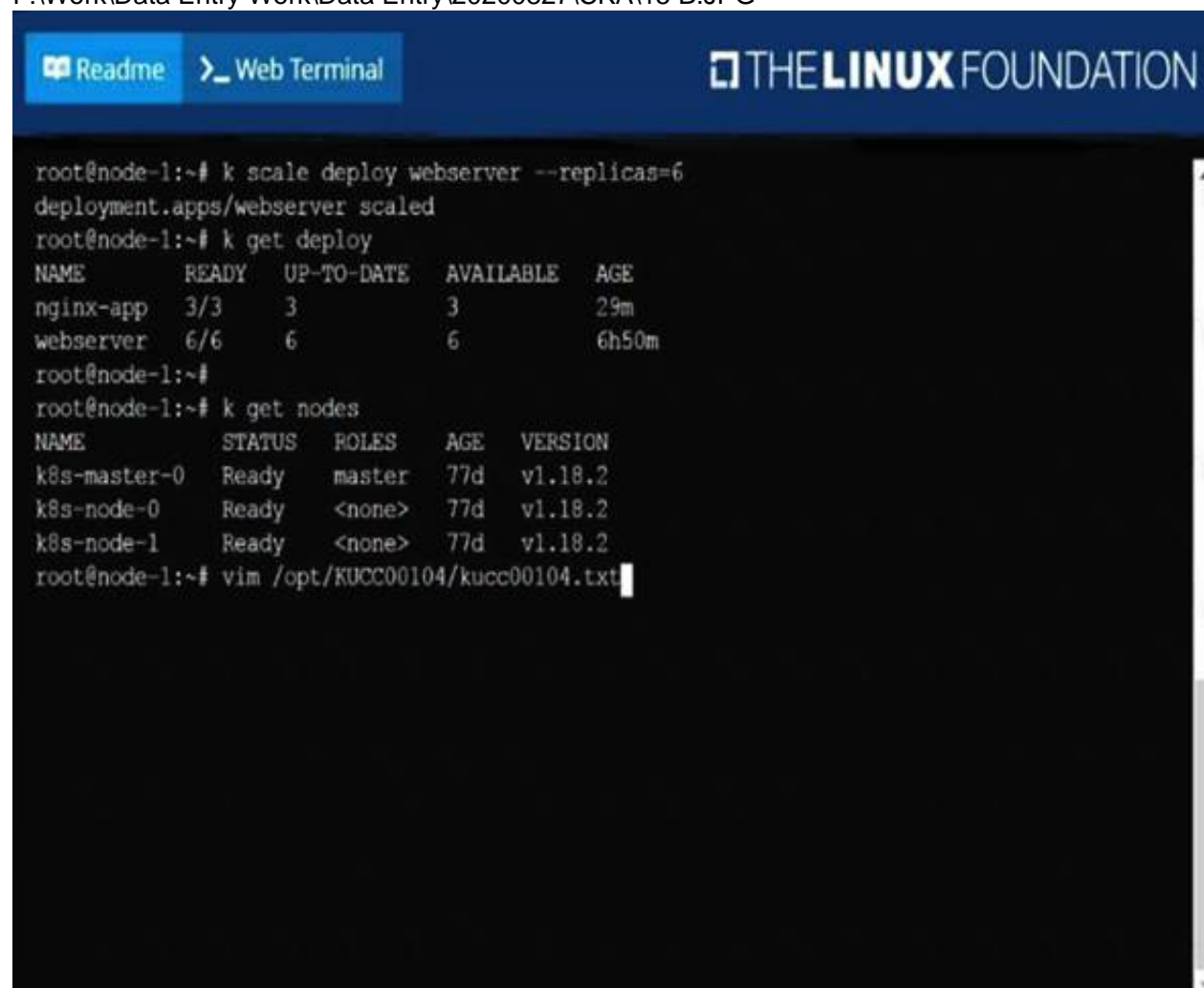
- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

solution

F:\Work\Data Entry Work\Data Entry\20200827\CKA\15 B.JPG



```
root@node-1:~# k scale deploy webserver --replicas=6
deployment.apps/webserver scaled
root@node-1:~# k get deploy
NAME          READY   UP-TO-DATE   AVAILABLE   AGE
nginx-app     3/3     3            3           29m
webserver     6/6     6            6           6h50m
root@node-1:~#
root@node-1:~# k get nodes
NAME          STATUS   ROLES    AGE   VERSION
k8s-master-0  Ready   master   77d   v1.18.2
k8s-node-0    Ready   <none>   77d   v1.18.2
k8s-node-1    Ready   <none>   77d   v1.18.2
root@node-1:~# vim /opt/KUCC00104/kucc00104.txt
```

F:\Work\Data Entry Work\Data Entry\20200827\CKA\15 C.JPG



NEW QUESTION 18

.....

Thank You for Trying Our Product

We offer two products:

1st - We have Practice Tests Software with Actual Exam Questions

2nd - Questions and Answers in PDF Format

CKA Practice Exam Features:

- * CKA Questions and Answers Updated Frequently
- * CKA Practice Questions Verified by Expert Senior Certified Staff
- * CKA Most Realistic Questions that Guarantee you a Pass on Your FirstTry
- * CKA Practice Test Questions in Multiple Choice Formats and Updatesfor 1 Year

100% Actual & Verified — Instant Download, Please Click
[Order The CKA Practice Test Here](#)