Question: 1

SIMULATION

Monitor the logs of pod foo and:

• Extract log lines corresponding to error

unable-to-access-website

• Write them to

/opt/KULM00201/foo

Set configuration context:

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

Answer: Solution

Solution

```
student@node-1:~$
student@node-1:~$ sudo -i
root@node-1:~# alias k=kubectl
root@node-1:~# █
```

```
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:~# █
```
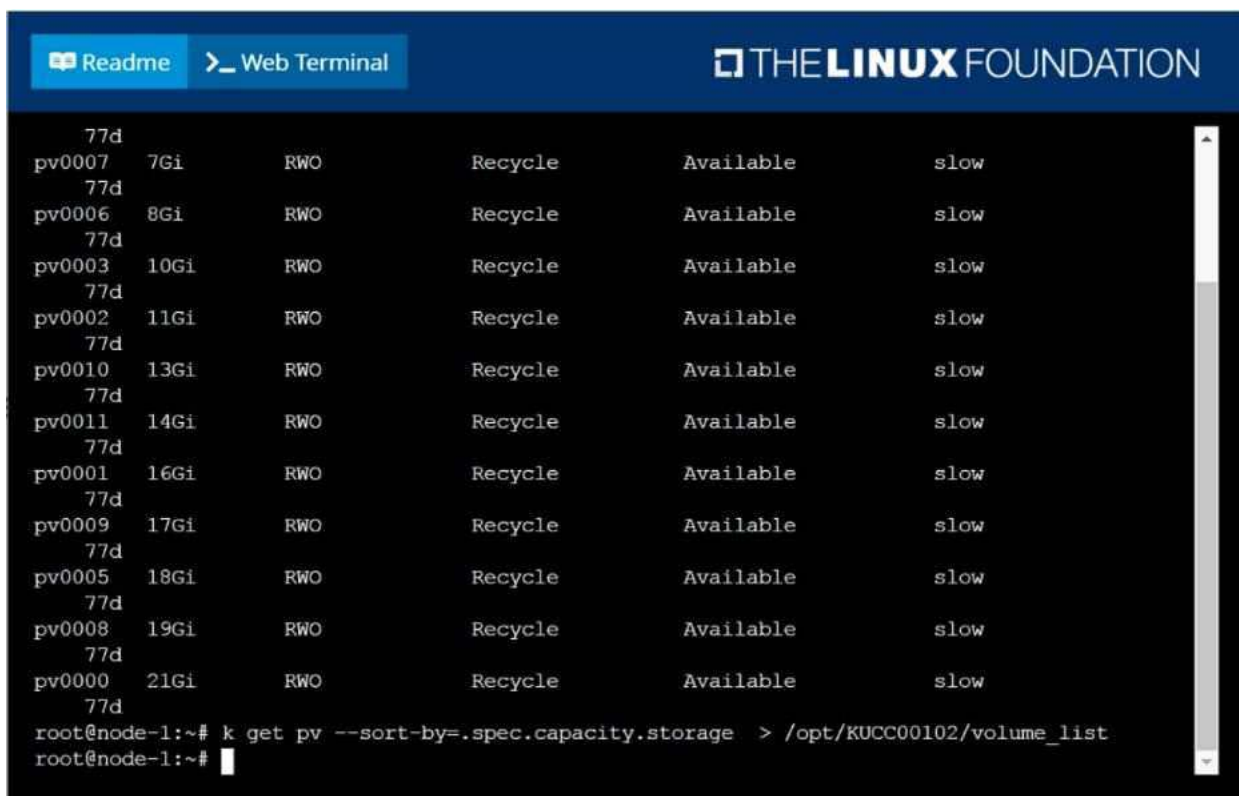
Question: 2

SIMULATION

List all persistent volumes sorted by capacity, saving the full kubectl output to

/opt/KUCC00102/volume_list. Use kubectl 's own functionality for sorting the output, and do not

manipulate it any further.

<div style="border:1px solid black; padding:4px; width:300px; text-align:center; margin-left:auto">

Answer: Solution

</div>

Solution

```
                                                        THE LINUX FOUNDATION
     77d
pv0007   7Gi       RWO        Recycle       Available       slow
     77d
pv0006   8Gi       RWO        Recycle       Available       slow
     77d
pv0003   10Gi      RWO        Recycle       Available       slow
     77d
pv0002   11Gi      RWO        Recycle       Available       slow
     77d
pv0010   13Gi      RWO        Recycle       Available       slow
     77d
pv0011   14Gi      RWO        Recycle       Available       slow
     77d
pv0001   16Gi      RWO        Recycle       Available       slow
     77d
pv0009   17Gi      RWO        Recycle       Available       slow
     77d
pv0005   18Gi      RWO        Recycle       Available       slow
     77d
pv0008   19Gi      RWO        Recycle       Available       slow
     77d
pv0000   21Gi      RWO        Recycle       Available       slow
     77d
root@node-1:~# k get pv --sort-by=.spec.capacity.storage  > /opt/KUCC00102/volume_list
root@node-1:~#
```
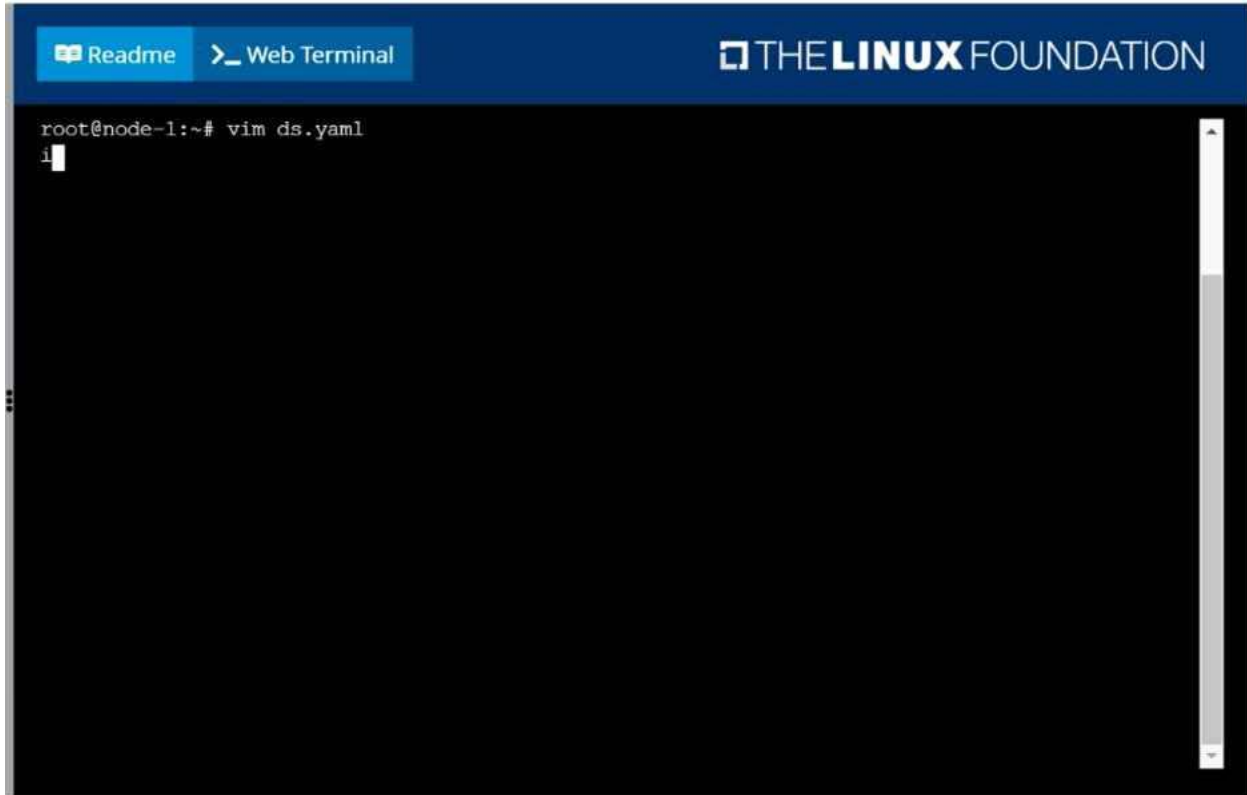
Question: 3

SIMULATION

Ensure a single instance of pod nginx 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.

Solution

```
root@node-1:~# vim ds.yaml
i
```

```
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
```

```
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
```

```
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:~#
```

Question: 4

List all the pods sorted by created timestamp

Answer: Solution

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

Question: 5

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

Answer: Solution

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

'metadata.namespace']}"