Question 1 of 10

What is contained within a ReplicaSet's YAML file that specifies how to create the pods?

pod template

Question 2 of 10

Which of these statements is true?

- ○ Deployments are suitable for stateful applications.
- ○ StatefulSets treat all pods interchangeably.
- ◉ A PV Provisioner can assign storage to StatefulSet pods.
- ○ ReplicaSets cannot exist outside of a deployment.

Question 3 of 10

Query the ReplicaSets. How many asteroid pods are currently desired?

0

```
linux@ip-10-102-3-90:~$ kubectl get rs
NAME                            DESIRED   CURRENT   READY   AGE
asteroid-deployment-697f8fb8fb  0         0         0       3m44s
linux@ip-10-102-3-90:~$
```

Question 4 of 10

What is the name of the image used in the asteroids deployment?

my-asteroid-image

```
linux@ip-10-102-3-90:~$ kubectl describe deploy asteroid-deployment
Name:                   asteroid-deployment
Namespace:              default
CreationTimestamp:      Sun, 06 Nov 2022 16:11:41 +0000
Labels:                 <none>
Annotations:            deployment.kubernetes.io/revision: 1
Selector:               run=asteroid-app
Replicas:               0 desired | 0 updated | 0 total | 0 available | 0 unavailable
StrategyType:           RollingUpdate
MinReadySeconds:        0
RollingUpdateStrategy:  25% max unavailable, 25% max surge
Pod Template:
  Labels:  run=asteroid-app
  Containers:
   asteroid-container:
    Image:        my-asteroid-image
    Port:         8080/TCP
    Host Port:    0/TCP
    Environment:  <none>
    Mounts:       <none>
  Volumes:        <none>
```

Question 5 of 10

What flag do you pass to 'kubectl scale' to indicate the number of pods you want to be running?

--replicas

Question 6 of 10

Increase the desired number of pods to ONE, wait until it is ready, and use cURL to access the asteroid container. What is the token?

080a24

```
linux@ip-10-102-3-90:~$ kubectl scale --replicas=1 deployment asteroid-deployment
deployment.apps/asteroid-deployment scaled
linux@ip-10-102-3-90:~$
```

```
linux@ip-10-102-7-127:~$ kubectl get svc
NAME                 TYPE        CLUSTER-IP      EXTERNAL-IP   PORT(S)          AGE
kubernetes           ClusterIP   10.152.183.1    <none>        443/TCP          625d
deployment-service   NodePort    10.152.183.71   <none>        8080:30000/TCP   8m22s
statefulset-service  ClusterIP   None            <none>        8127/TCP         8m20s
linux@ip-10-102-7-127:~$
linux@ip-10-102-7-127:~$ curl 10.152.183.71:8080
<p>Good job, you scaled the deployment and connected to the Nginx container!</p>
<p>If your token does not appear, please wait until all pods are running.</p>
<p>Your token is...
080a24
</p>
linux@ip-10-102-7-127:~$
```

Question 7 of 10

There is a StatefulSet running on the cluster. Query its configuration. What label is given to the pods it creates?

run: nginx2

```
linux@ip-10-102-3-90:~$ kubectl get sts -oyaml | grep -i "matchLabels:" -C5
  spec:
    podManagementPolicy: OrderedReady
    replicas: 3
    revisionHistoryLimit: 10
    selector:
      matchLabels:
        run: nginx2
    serviceName: statefulset-service
    template:
      metadata:
        creationTimestamp: null
linux@ip-10-102-3-90:~$
```

Question 8 of 10

What flag can be passed when removing pods, to only delete those with a certain label?

-l

Question 9 of 10

Complete the final three tasks. Which pod is restarted last?

my-statefulset-2

Question 10 of 10

What was the status of the 'my-statefulset-0' pod when the scheduler began restarting the 'my-statefulset-1' pod?

Running

```
linux@ip-10-102-7-127:~$ screen -S backScreen

linux@ip-10-102-7-127:~$ kubectl get po -w -l run=nginx2
NAME              READY   STATUS    RESTARTS   AGE
my-statefulset-0   1/1     Running   0          16m
my-statefulset-1   1/1     Running   0          15m
my-statefulset-2   1/1     Running   0          14m
```

Press **Ctrl + A + D** to go back to main terminal

```
[detached from 31952.backScreen]
linux@ip-10-102-7-127:~$
```

Delete these sts pods

```
linux@ip-10-102-7-127:~$ kubectl delete po -l run=nginx2
pod "my-statefulset-0" deleted
pod "my-statefulset-1" deleted
pod "my-statefulset-2" deleted
linux@ip-10-102-7-127:~$
```

Press **screen -r backScreen** to switch to background terminal

```
linux@ip-10-102-7-127:~$ screen -r backScreen
```

The status of sts pods by timeline

```
linux@ip-10-102-7-127:~$ kubectl get po -w -l run=nginx2
NAME              READY   STATUS    RESTARTS   AGE
my-statefulset-0   1/1     Running   0          16m
my-statefulset-1   1/1     Running   0          15m
my-statefulset-2   1/1     Running   0          14m
my-statefulset-0   1/1     Terminating   0          17m
my-statefulset-1   1/1     Terminating   0          16m
my-statefulset-2   1/1     Terminating   0          15m
my-statefulset-0   0/1     Terminating   0          17m
my-statefulset-1   0/1     Terminating   0          16m
my-statefulset-2   0/1     Terminating   0          15m
my-statefulset-2   0/1     Terminating   0          15m
my-statefulset-2   0/1     Terminating   0          15m
my-statefulset-1   0/1     Terminating   0          17m
my-statefulset-1   0/1     Terminating   0          17m
my-statefulset-0   0/1     Terminating   0          18m
my-statefulset-0   0/1     Terminating   0          18m
my-statefulset-0   0/1     Pending       0          0s
my-statefulset-0   0/1     Pending       0          0s
my-statefulset-0   0/1     ContainerCreating   0          0s
my-statefulset-0   0/1     ContainerCreating   0          1s
my-statefulset-0   1/1     Running             0          1s
my-statefulset-1   0/1     Pending             0          0s
my-statefulset-1   0/1     Pending             0          0s
my-statefulset-1   0/1     ContainerCreating   0          0s
my-statefulset-1   0/1     ContainerCreating   0          1s
my-statefulset-1   1/1     Running             0          2s
my-statefulset-2   0/1     Pending             0          0s
my-statefulset-2   0/1     Pending             0          0s
my-statefulset-2   0/1     ContainerCreating   0          0s
my-statefulset-2   0/1     ContainerCreating   0          2s
my-statefulset-2   1/1     Running             0          3s
```