

## ✔ Congratulations! You passed!

Grade received 100%

To pass 80% or higher

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## Deployments, Jobs, and Scaling

Latest Submission Grade 100%

1. After a Deployment has been created and its component Pods are running, which component is responsible for ensuring that a replacement Pod is launched whenever a Pod fails or is evicted? **1 / 1 point**
- ☒ ReplicaSet
- ☐ StatefulSet
- ☐ Deployment
- ☐ DaemonSet
- ✔ **Correct**  
That is correct.
2. You are configuring the rollout strategy for your Deployment that contains 8 Pods. You need to specify a Deployment property that will ensure at least 75% of the desired number of Pods is always running at the same time. What property and value should you set for the deployment to ensure that this is the case? **1 / 1 point**
- ☐ maxUnavailable=2
- ☐ maxSurge=2
- ☐ minAvailable=6

☒ maxUnavailable=25%

☐ maxSurge=25%

☒ **Correct**

That is correct.

3. You have made a number of changes to your deployment and applied those changes. Which command should you use to rollback the environment to the deployment identified in the deployment history as revision 2?

1 / 1 point

☐ Select the desired revision from the revision history list in the GCP console.

☐ Run 'kubectl apply -f DEPLOYMENT\_FILE --to-revision=2'.

☒ Run 'kubectl rollout undo deployment --to-revision=2'.

☐ Run 'kubectl rollout undo deployment ' twice.

☒ **Correct**

That is correct.

4. You are resolving a range of issues with a Deployment and need to make a large number of changes. Which command can you execute to group these changes into a single rollout, thus avoiding pushing out a large number of rollouts?

1 / 1 point

☒ kubectl rollout pause deployment

☐ kubectl stop deployment

☐ kubectl rollout resume deployment

☐ kubectl delete deployment

☒ **Correct**

That is correct.

5. You are configuring a Job to process the conversion of a sample of a large number of video files from one format to another. Which parameter should you configure to ensure that you stop processing once a sufficient quantity have been processed? **1 / 1 point**

☐ parallelism=4

☐ backofflimit=4

☐ replicas=4

☒ completions=4

☒ **Correct**  
That is correct.

6. You have configured a Kubernetes Job with a backofflimit of 4 and a completions count of 8. If the Pods launched by the Job continually fail, how long does it take for four failures to happen and what does the Job report? **1 / 1 point**

☐ 80 seconds, Job continues launch Pods until completions reaches 8.

☐ 40 seconds, Job continues launch Pods until completions reaches 8.

☐ 40 seconds, Job fails with BackoffLimitExceeded as the reason.

☒ 80 seconds, Job fails with BackoffLimitExceeded as the reason.

☒ **Correct**  
That is correct.

7.

1 / 1 point

A parallel Kubernetes Job is configured with parallelism of property of 4 and a completions property of 9. How many Pods are kept in a running state by the Job controller immediately after the sixth successful completion?

☐ 6

☒ 3

☐ 4

☐ 1

☒ **Correct**  
That is correct.

8. With a Kubernetes Job configured with a parallelism value of 3 and no completion count what happens to the status of the Job when one of the Pods successfully terminates?

1 / 1 point

☒ The entire Job is considered complete and the remaining Pods are shut down.

☐ The Job is not considered complete until all Pods terminate successfully and shut themselves down.

☐ Pods in a parallel Job must be able to detect when other Pods have completed and should terminate automatically.

☐ The Job is considered complete, but the remaining Pods are left to shut themselves down.

☒ **Correct**  
That is correct.

9. How do you configure a Kubernetes Job so that Pods are retained after completion?

1 / 1 point

- ☒ Configure the cascade flag for the Job with a value of false.
- ☐ Set an activeDeadlineSeconds value high enough to allow you to access the logs.
- ☐ Configure the backofflimit parameter with a non-zero value.
- ☐ Set a startingDeadlineSeconds value high enough to allow you to access the logs.
- ☒ **Correct**  
That is correct.

**10.** You have autoscaling enabled on your cluster. What conditions are required for the autoscaler to decide to delete a node?

**1 / 1 point**

- ☐ If the overall cluster is underutilized, a randomly selected node is deleted.
- ☐ If a node is underutilized and there are no Pods currently running on the Node.
- ☐ If the overall cluster is underutilized, the least busy node is deleted.
- ☒ If a node is underutilized and running Pods can be run on other Nodes.

☒ **Correct**  
That is correct.

**11.** What status or event is used by the GKE autoscaler to decide when scaleout is required and a new node needs to be added?

**1 / 1 point**

- ☐ When the resource load on the cluster exceeds a maximum usage threshold.

- ☐ When the number of spare Nodes in the cluster drops below the minimum specified for the cluster.
- ☐ When the number of Pods scheduled on any Node exceeds the maximum number of concurrent Pods allowed for the cluster.
- ☒ When the scheduler cannot schedule a Pod due to resource constraints and the Pod has been marked as unschedulable.

☒ **Correct**  
That is correct.

**12.** When specifying Inter-pod affinity rules, you need to specify an affinity rule at the zone level, not at the individual Node level. Which additional parameter in the Pod manifest YAML must you set to apply this override?

**1 / 1 point**

- ☒ topologyKey: failure-domain.beta.kubernetes.io/zone
- ☐ zone: failure-domain.beta.kubernetes.io/zone
- ☐ matchLabels: failure-domain.beta.kubernetes.io/zone
- ☐ label: failure-domain.beta.kubernetes.io/zone

☒ **Correct**  
That is correct.