

Kubernetes Full Resource Assessment

1. What is a Pod in Kubernetes?

- A. A virtual machine
- B. A group of one or more containers
- C. A network component
- D. A storage volume

2. What is the main function of a Deployment in Kubernetes?

- A. Store configuration
- B. Control node memory
- C. Manage replicas of Pods
- D. Create networks

3. What does a ReplicaSet ensure?

- A. A container has a volume
- B. A Deployment has one replica
- C. A specified number of Pods are running
- D. Pods never restart

4. Which Service type exposes a pod on an internal cluster IP only?

- A. NodePort
- B. LoadBalancer
- C. ClusterIP
- D. ExternalName

5. What is stored in a ConfigMap?

- A. Sensitive data
- B. Binary files
- C. Non-sensitive configuration data

D. Container logs

6. What type of data should be stored in a Secret?

A. HTML templates

B. Container names

C. Passwords and tokens

D. Application logs

7. Why are Volumes used in Pods?

A. To assign CPU

B. To persist data

C. To scale services

D. To restart containers

8. What is a PersistentVolumeClaim (PVC)?

A. A claim to extra CPU

B. A request for storage by a Pod

C. A pod autoscaler

D. A container image claim

9. What makes StatefulSet different from Deployment?

A. It can't manage Pods

B. Pods get unique identities and stable storage

C. It only runs on minikube

D. It uses ConfigMaps by default

10. What is the role of an Ingress resource?

A. Assign CPU limits

B. Provide logging

C. Manage internal DNS

D. Route external traffic into the cluster

11. What is the purpose of Namespaces in Kubernetes?

A. Define memory limits

B. Store container images

C. Isolate resources in the cluster

D. Monitor services

12. What is a DaemonSet used for?

A. Run a Pod on one node

B. Run a Pod on every node

C. Handle replica scaling

D. Restart failed containers

13. What is the difference between a Job and a CronJob?

A. Jobs run once, CronJobs run on a schedule

B. Jobs manage Services

C. CronJobs create DaemonSets

D. They are the same

14. What does a HorizontalPodAutoscaler do?

A. Create Ingress rules

B. Scale Pods based on metrics

C. Manage secrets

D. Increase Node count

15. What is a ServiceAccount used for?

A. Backup data

B. Store logs

C. Access the API securely from within a Pod

D. Assign IP addresses