

## Kubernetes interview

How is Kubernetes related to Docker?

What is Container Orchestration?

What are the features of Kubernetes?

How does Kubernetes simplify containerized Deployment?

What is Google Container Engine?

What is Heapster?

What is Minikube?

What is Kubectl?

What is the syntax for the Kube-proxy command?

What is the syntax for the Kubectl command?

What is Kubelet?

What are the different components of Kubernetes Architecture?

What do you understand by Kube-proxy?

What is the Kubernetes controller manager?

What are the different types of controller manager running on the master node?

What is ETCD?

What do you understand by load balancer in Kubernetes?

Write a command to create and fetch the deployment.

What is Ingress network?

What do you understand by Cloud controller manager?

What are the different types of cloud controller manager?

What is a Headless Service?

What are federated clusters?

What is a pod?

What is the difference between a daemonset, a deployment, and a replication controller?

What is a sidecar container, and what would you use it for?

How can you separate resources?

What are K8s?

What is a node in Kubernetes?

What does the node status contain?

What process runs on Kubernetes Master Node?

What is the job of the kube-scheduler?

What is a cluster of containers in Kubernetes?

What is a Namespace in Kubernetes?

Name the initial namespaces from which Kubernetes starts?

What are the different services within Kubernetes?

What is ClusterIP?

What is NodePort?

What is Kube-proxy?

How can you get a static IP for a Kubernetes load balancer?

What is the difference between config map and secret?

If a node is tainted, is there a way to still schedule the pods to that node?

Can we use many claims out of a persistent volume?

What is Kube-proxy?

What are the tools that are used for container monitoring?

What are the important components of node status?

What is minikube?

Explain Prometheus in Kubernetes.

List tools for container orchestration.

Define Stateful sets in Kubernetes.

Explain Replica set.

Why uses Kube-apiserver?

Explain the types of Kubernetes pods.

What are the labels in Kubernetes?

What is Sematext Docker Agent?

Define OpenShift.

What is ContainerCreating pod?

What do you mean by Persistent Volume Claim?

What will happen while adding new API to Kubernetes?

How do you make changes in the API?

What is kubectl drain?

Define Autoscaling in Kubernetes.

What is the "Master"?

What is a Swarm in Docker?

What is Kubernetes Log?

What are the types of Kubernetes Volume?

Explain PVC.

What is the Kubernetes Network Policy?

What are minions in Kubernetes cluster?

Kubernetes cluster data is stored in which of the following?

Which of them is a Kubernetes Controller?

Which of the following are core Kubernetes objects?

The Kubernetes Network proxy runs on which node?

What are the responsibilities of a node controller?

What are the responsibilities of Replication Controller?

How to define a service without a selector?

What did the 1.8 version of Kubernetes introduce?

The handler invoked by Kubelet to check if a container's IP address is open or not is?

## Aws interview

### 1) What is EFS ?

EFS is Elastic File System in AWS. It is serverless and scalable file storage. You can access storage which is both on-prem and on the cloud at the same time. It is not free.

### 2) How to configure S3 with SDN?

It is configured through security fabric connectors.

### 3) S3 lifecycle policy

Data in a S3 bucket after 30 days of inactivity gets transferred to glacier storage. It is a cheap storage. If unused for another 365 days, data gets permanently deleted.

### 4) Static website hosting using S3

Put some data in S3 bucket. Write a HTML page to fetch the data from S3 bucket. Put the HTML page in a Docker file (similar to Nginx image) and build an image. Run `docker build -t ...` access webpage on your browser.

### 5) Describe your project architecture ?

Self explanatory

### 6) What is private subnet and public subnet?

Public subnet- data can be accessible to outside world easily without restriction

Private subnet – data isn't accessible to outside world. If you want that to happen, it has to be configured in the NAT gateway.

7) What is NAT gateway ? other way , No one can access the database server from internet but from database server we can download the patch?

### 8) Can we mount S3 on EC2 instance?

Yes

### 9) Can we make S3 bootable?

### 10) What are routing policies in Route53?

Explain simple routing policy or weighted routing policy ..these 2 are pretty simple to configure.

12) how to take snapshots of a rds database in every 3 hours?

13) how to get the public ips of all ec2 instance under a single user account ?

14) user's are complaining they are not able to access the server ,what is approach to fix this ?

Depends on the error logs present in /var/log/messages, dmesg, ping, ssh, network issue, power issue, data center issues, ip remap allocation etc.

15) difference between security group and NACL?

Security group is where you define your inbound and outbound traffic rules/port numbers etc

NACL – Network attached Access Control list. This only can control the traffic to or from a subnet.

## Git interview

1. Git vs GitHub vs GitLab
2. what is the use of SCM?
3. What are hooks?
4. How to restrict few filetypes from getting committed?
5. Difference between hooks and gitignore
6. What is GitOps?
7. Alternates to GitLab
8. How do you install Gitlab? How did you configure it?
9. What is your SCM Setup?
10. What are the problems you encountered with Gitlab?
11. Can we save packages and docker images also in Gitlab? How?
12. What is your branching strategy?
13. Difference between git merge and git rebase? Which is more efficient?
14. Difference between git pull and git push?
15. Difference between fetch and pull?
16. What is git stash?
17. Did you ever encounter a conflict? How did you resolve them?
18. Difference between perforce and git?
19. What is Git Client?
20. What is HEAD?
21. What is git reset? How many types of reset is possible? What is the difference?
22. Why is git more secure?
23. Why do you prefer git?
24. Did you ever delete a branch in git? How do you do?
25. How to recover an accidentally deleted branch?
26. What is the best way to stop developers from doing an accidental commits?
27. What is your release strategy?
28. How do you identify a git base directory?

29. What are bare and non-bare repositories?

30. Explain scenarios of git hooks implementation? Which language is used to write the script? How did you implement this?

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Kubernetes :

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- 1) what is taint and toleration
- 2) node affinity and pod affinity
- 3) how to check the logs of a pod or deployment?
- 4) how to check how many pods are running
- 5) what are deployment strategies used in your project
- 6) what is init container
- 7) what is statefulset
- 8) what is ingress
- 9) difference between headful and headless service
- 10) difference between secret and configmap
- 11) what is livenessprobe and readinessprobe
- 12) how to access other pods in a cluster
- 13) what is a pod
- 14) how you will make sure that the database should start first and then application
- 15) Types of storage class used in your project
- 16) difference between statefulset and stateless
- 17) describe kubernetes architecture
- 18) difference between PV and pvc
- 19) 2 containers are running inside a pod if one container goes down then will it affect other running container
- 20) Update the password in secret without restarting the pod or deployment ,is it possible ?
- 21) how to rollback the deployment?
- 22) what is the reason for pod eviction?
- 22) pod is in pending state ,what are the possible reasons?
- 23) how you will make sure that in rolling update strategy 2 pods are always available?
- 24) crashloopbackoff, what are the possible reasons?
- 25) why you are using 3 master node in production?

- 26) how you will make sure that pod should be running on a specific node?
- 27) how to check what are the activities performed by the container while creating the pod
- 28) how to get the ip of a pod ?
- 29) which network plugin you are using?
- 30) how you are monitoring the kubernetes cluster and the containers
- 31) Job should be terminated after 40 seconds ? ActiveDeadlineSeconds: 40
- 32) --if ns is created but pods under the ns are not showing up. How to troubleshoot such issues?

33)--Do we need to check kube-controller and kube-scheduler logs?

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DOCKER :

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- 1) difference between add and copy ?
- 2) difference between CMD and entry point ?
- 3) ADD . .
- 4) what is docker file ?
- 5) how to check how many containers are running ?
- 6) docker logging driver ?
- 7) what is difference between bridge network and custom bridge network?
- 8) difference between overlay network and host network ?
- 9) what is port forwarding in docker what is the use of it ?
- 10) how to login/enter to a container?
- 11) what is docker system prune and docker image prune?
- 12) how many types of volumes are there in Docker? (Local and network)
- 13) How to check image vulnerability ?

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Terraform:

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- 1) What is statefile and what is the use of it ?
- 2) where you are keeping the statefile ?
- 3) how to declare a variable ?
- 4) what is the difference between provisioner and provider?
- 5) how pass a value from one resource block to another ?
- 6) how to reuse a module?
- 7) what is the difference between Terraform init and terraform apply?
- 8) how to validate the terraform file ?
- 9) what terraform plan does?
- 10) how to create 10 ec2 instance using the same script ? ( count= 10)

11) By mistake if you downgrade the instance from t2.large to t2.micro ,then what will happen when you run the terraform script?

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#### DevOps Interview Questions for experience candidates

1. Explain briefly about your project.
2. In which area you are well verse?
3. What is branching strategies? What is difference between release and feature branch?
4. What is code cut for deployment in master branch?
5. How to code will be add from feature branch to release branch?
6. Explain different job available in Jenkins.
7. How to create CI and CD pipeline? Explain stages in pipeline.
8. How master-slave configuration set-up and how to use in pipeline?
9. What is Maven and which version you are using in project?
10. What are Maven dependencies and how to manage those?
11. What are different goals in Maven lifecycle?
12. What is code coverage and which tool you use to validate code coverage?
13. Are you using any build artifactory?
14. What is build artifactory and why use artifactory?
15. Which application and webserver used in your project?
16. Explain docker architecture. Difference between docker and K8S.
17. Explain image layers and dangling images.
18. How you monitor application logs and which tool you used?
19. How can SSH in container and troubleshoot the issue?
20. Are you aware about docker networking? If yes, then explain.
21. Apart from above Application and webserver which you are aware?
22. What is Ansible architecture and how to set-up password based authentication?
23. What is your approach to deploy war file using ansible? List down the steps.

24. How to configure the Jenkins with ansible?
25. Can we use Kubernetes without Ansible? If yes, then how?
26. What mean by roles, task and handlers in Ansible? Give me example of ansible playbook.
27. If you want to deploy any war file in production what are your approach(pre-requisite) ?
28. How to manage Jenkins administration based on user profile.
29. What are different securities level option in AWS?
30. What are fundamental pillars of AWS architecture?
31. What is SG and ACL? Are those same or different?
32. Which lib use for python with aws?
33. Which types of instances you used in your project? What is disaster recovery plan for the project?
34. What mean by SSL certificate? Why to use it?
35. Have you experience in to configure SSL certificates? If yes, please explain the process.

Few more interview questions

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## Git Interview Questions

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1. What is Version control system or Source code manager?
  2. Benefits of VCS or SCM?
  3. What is Git and What is a repository in GIT?
  4. Difference between Git and SVN?
  5. Two types of git authentication?
  6. Branches in Git and its purpose?
- What is the common branching pattern in GIT?
7. What is Pull requests?
  8. How to install git in Linux & Windows?

9. How to setup repository through command line?
10. How to setup repository in github and clone it?


### Infosys interview Questions

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Qstns I faced in infosys interview:

Technical:

1. Explain your roles and responsibilities.
2. Explain the stages in ur project declarative pipeline.
3. What is devops?
4. What is ci/cd?
5. What is difference in DevOps and CICD?
6. What are the git commands you use?
7. Difference in git fetch and git pull?
8. What is default port of Jenkins?
9. How to change Jenkins port no?
10. How to connect master slave?
11. How to checkout git code in Jenkins?
12. How to take backup of ur jenkins?
13. Do you have any script to launch slave nodes?
14. How do you resolve build failure?
15. Difference in soft link and hard link?

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16. How to find a particular word from a file?
17. What is stop command?
18. What is Terraform provisioner?



19. What is Terraform module?
20. Is it possible to lock Terraform module?
21. What is AWS vpc?
22. How do you select availability zones using Terraform?
23. What is difference in S3 and other AWS storages?
24. How do you use S3 bucket in your project?
25. What is Terraform provider versioning?
26. How do you run docker container?
27. What is ansible playbook?
28. Syntax of ansible playbook
29. How u run ansible playbook?
30. Have you worked with any alerting monitoring tools?

#### Linux Interview questions

1. Script/command to delete last word from every line in a file

Awk '{gsub("[a-zA-Z0-9]\*\$", "");print}' <filename>

To replace last word with hello in every line

Awk '{gsub("[a-zA-Z0-9]\*", "hello");print}' <filename>

2. script/command to find the files with more than 1gb size

Find <path for directory> -size +1G -type f

3. What is Swap Space?
4. What is the maximum length for a file name in Linux?

5. Which partition stores the system configuration files in Linux system?
6. Which command is used to uncompress gzip files?
7. What is the difference between soft and hard mounting points?
8. What are the file permissions in Linux?
9. more questions are from sed, find and awk .
10. How to check Memory stats and CPU stats as a Linux admin?
  
11. How to reduce or shrink the size of LVM partition?
12. How can you enhance the security of password file?
13. What is the difference between Cron and Anacron?
14. What command is used to check the number of files, disk space and each user's defined quota?

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15. how can you manage memory in linux machines?
16. 18. What is the name and path of the main system log?
17. how to manage logical volumes?
18. Explain /proc filesystem?
19. What are the fields in the/etc/passwd file?
20. How do you terminate an ongoing process?
21. How can you know the execution time of a command?
22. How can you append one file to another in Linux?
23. How you can run an Linux program in the background simultaneously when you start your Linux Server?

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