

DevOps Interview Questions

- What is a statefile?
- Where do you store the statefile?
- What is a null resource in Terraform?
- CI/CD workflow.
- Terraform code to deploy an EC2 instance.
- What will appear in the Terraform plan if you comment out a resource block?
- Script to find the largest and smallest elements in an array.
- Entry point vs CMD in a Dockerfile.
- Add vs Copy in Dockerfile.
- Describe Kubernetes architecture.
- Do you know Ansible?
- Difference between Secrets and ConfigMap in Kubernetes.
- Docker lifecycle.
- What is a ReplicaSet?
- Running Kubernetes in a single-node local environment.
- How to remove a file from Git without deleting it from the filesystem.
- Discovering if a Git branch has been merged.
- Application Load Balancer vs Network Load Balancer.
- What is Route53?
- Experience with GCP Cloud.
- Difference between single and multiple Jenkins pipelines.
- Issues of using a single pipeline vs multiple pipelines in Jenkins.
- Current Jenkins version.
- Jenkins pipeline script for Terraform deployment.
- Creating 10 EC2 instances with incremental values.
- Terminating 9 EC2 instances while keeping one running.
- Connecting on-premise applications to a VPC cloud.
- Terraform taint.
- Terraform refresh.
- What happens if console resource values are changed and Terraform apply is executed?
- Terraform module and its purpose.
- What is CloudTrail?
- Load Balancer and Auto Scaling.
- What is Databricks?

- What is DevOps, and how does it differ from traditional IT practices?
- Benefits of implementing DevOps.
- Description of the DevOps lifecycle.
- Explanation of CI/CD pipeline and its benefits.
- Importance of Infrastructure as Code (IaC).
- Tools used for configuration management and why.
- Managing version control in DevOps.
- Differences between Ansible, Puppet, and Chef.
- Which containerization platforms have you worked with?
- How do you monitor systems in a DevOps environment? What tools do you recommend?
- What tools have you used for CI/CD, and how do they fit into the pipeline?
- How do you handle failures during deployments?
- Explain blue-green deployments and canary deployments.
- What are some challenges with automating CI/CD, and how do you address them?
- What cloud platforms have you worked with (AWS, Azure, GCP)?
- Explain the differences between scaling horizontally and vertically.
- How do you ensure high availability in a distributed system?
- What is the role of load balancers in a cloud architecture?
- What scripting languages do you use, and for what purpose in DevOps?
- How do you automate infrastructure provisioning?
- Can you explain how you troubleshoot failed scripts or pipelines?
- What monitoring tools have you used? How do you decide which metrics to monitor?
- How do you ensure the security of your CI/CD pipelines?
- What is your approach to handling secrets and credentials in automation scripts?
- Tell me about a challenging project you worked on in DevOps. How did you handle it?
- Describe a time when a production system failed. What steps did you take to resolve it?
- How would you approach onboarding a new team to a DevOps culture?
- How do you handle conflicts between development and operations teams?
- How do you keep yourself updated with the latest DevOps trends and technologies?
- What do you think is the most critical aspect of collaboration in a DevOps team?
- What scripting languages are you familiar with?
- What are artifacts in GitLab CI?

- What is a private module registry in Terraform?
- If you delete the local Terraform state file and it's not stored in S3 or DynamoDB, how can you recover it?
- How do you import resources into Terraform?
- What is a dynamic block in Terraform?
- How can you create EC2 instances in two different AWS accounts simultaneously using Terraform?
- How do you handle an error stating that the resource already exists when creating resources with Terraform?
- How does Terraform refresh work?
- How would you upgrade Terraform plugins?
- What are the different types of Kubernetes volumes?
- If a pod is in a crash loop, what might be the reasons, and how can you recover it?
- What is the difference between StatefulSet and DaemonSet?
- What is a sidecar container in Kubernetes, and what are its use cases?
- If pods fail to start during a rolling update, what strategy would you use to identify the issue and rollback?
- How can we enable communication between 500 AWS accounts internally?
- How to configure a solution where a Lambda function triggers on an S3 upload and updates DynamoDB?
- What is the standard port for RDP?
- How do you configure a Windows EC2 instance to join an Active Directory domain?
- How can you copy files from a Linux server to an S3 bucket?
- What permissions do you need to grant for that S3 bucket?
- What are the different types of VPC endpoints and when do you use them?
- How to resolve an image pullback error when using an Alpine image pushed to ECR in a pipeline?
- What is the maximum size of an S3 object?
- What encryption options do we have in S3?
- Can you explain IAM user, IAM role, and IAM group in AWS?
- What is the difference between an IAM role and an IAM policy document?
- What are inline policies and managed policies?
- How can we add a load balancer to Route 53?
- What are A records and CNAME records?
- What is the use of a target group in a load balancer?
- If a target group is unhealthy, what might be the reasons?

- Can you share your screen and write a Jenkins pipeline?
- How do you write parallel jobs in a Jenkins pipeline?
- How do you store the state file, and how would you write an S3 bucket creation in Terraform?
- Can you explain the process of creating an IAM role and attaching it to an EC2 instance?
- What is a Virtual Private Cloud (VPC)?
- Can you describe the purpose and functionality of Route 53?
- How do you access a private instance using a NAT gateway?
- What is the difference between CMD and ENTRYPOINT in a Dockerfile?
- What contents have you included in your Dockerfile?
- What is a Lambda function, and how does it work?
- Can you outline the stages of your Jenkins pipeline?
- How can you list the largest 10 files in a directory?
- What is a module in Terraform?
- Can you explain what a data resource is?
- What module have you developed that has been particularly useful for your team?
- What are your day-to-day activities in your current role?
- How do you troubleshoot a Docker container if it fails?
- What can you tell me about Prometheus?
- What are the steps to create custom metrics in CloudWatch?
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- How do you access JSON data in Python?
- Have you integrated SonarQube into your CI/CD pipeline?

- How do you implement auto-scaling in AWS, and what are the configuration steps involved