DevOps Real-Time Interview Questions

General Questions:-

- Can you tell me a little bit about yourself?
- What are the roles & responsibilities in current company?
- Why did you apply for this position?
- Why are you looking to leave your current company?
- What are your good professional strengths?
- Tell me about a challenge you've faced at work and how you deal with it.
- How do you deal with pressure or stressful situations? any examples
- What is DevOps?
- Why organizations are implementing DevOps?
- What are the Benefits of using DevOps
- Why do you want to work here?
- Where do you see yourself in 5 years?
- How did you hear about the position?
- What do you know about our company?
- Why should we hire you?
- What are your greatest professional strengths?
- What is your dream job?
- What other companies are you interviewing with?
- What type of work environment do you prefer?
- What have you done in these years what are tools involved?
- Why do we need a DevOps?
- As a DevOps engineer why we use Jira Tool?
- What is the use of Jira tool?
- Can tell what are issues you faced in your project? How do you resolve it and how do you come to know the issues?
- Did you get any awards?

❖ AWS:-

- What is the difference between stopping and terminating an EC2 instance?
- How can you add an existing instance to a new Auto Scaling group?
- How do you configure CloudWatch to recover an EC2 instance?
- How do you configure CloudWatch to recover an EC2 instance?
- What is the difference between Latency Based Routing and Geo DNS?
- How does Amazon Route 53 provide high availability and low latency?
- What is the difference between a Domain and a Hosted Zone?
- What are the elements of an AWS CloudFormation template?
- What happens in CloudFormation when one of the resources in a stack cannot be created successfully?
- What are the steps involved in a CloudFormation Solution?
- How does AWS config work with AWS CloudTrail?
- Can AWS Config aggregate data across different AWS accounts?
- How are reserved instances different from on-demand DB instances?
- Which type of scaling would you recommend for RDS and why?
- What is a maintenance window in Amazon RDS? Will your DB instance be available during maintenance events?
- What are the consistency models in DynamoDB?
- What type of query functionality does DynamoDB support?
- What are the different types of load balancers in AWS?
- What are the different uses of the various load balancers in AWS Elastic Load Balancing?
- How can you use AWS WAF in monitoring your AWS applications?
- What are the different AWS IAM categories that you can control?
- What is the difference between an IAM role and an IAM user?
- What are the managed policies in AWS IAM?
- Can you give an example of an IAM policy and a policy summary?
- How does AWS IAM help your business?
- What is the relation between the Availability Zone and Region?
- What is auto-scaling?
- What is geo-targeting in CloudFront?
- How do you upgrade or downgrade a system with near zero downtime?
- What are the tools and techniques that you can use in AWS to identify if you are paying more than you should be, and how to correct it?
- What services can be used to create a centralized logging solution?
- What are the native AWS Security logging capabilities?

- What is a DDoS attack and what services can minimize them?
- You are trying to provide a service in a particular region but you are not seeing the service in that region. Why is this happening and how do you fix it?
- Name some of the AWS services that are not region specific
- What are the differences between NAT Gateways and NAT Instances?
- What are the factors to consider while migrating to Amazon Web Services?
- What is RTO and RPO in AWS?
- If you would like to transfer huge amounts of data, which is the best option among Snowball, Snowball Edge, and Snowmobile?
- What are some key differences between AWS S3 and EBS?
- How do you allow a user to gain access to a certain S3 bucket?
- How can you monitor S3 cross region replication to ensure consistency without actually checking the bucket?
- VPC is not resolving the server through DNS. What might be the issue and how can you fix it?
- How do you connect multiple sites to a VPC?
- Name and explain some security products and features available in VPC?
- How do you monitor Amazon VPC?
- How can you automate EC2 backup using EBS?
- What is the difference between EBS and Instance Store?
- Can you take a backup of EFS like EBS, and if yes, how?
- What are Key-Pairs in AWS?
- What is the relation between the Availability Zone and Region?
- What is a Power User Access in AWS?
- What is the use of lifecycle hooks is Auto scaling?
- What is NAT Instance/NAT Gateway?
- Why is SG?
- If my RDS is running out of space how will you resolve that without launching other RDS?
- What is Lambda and how it works?
- How will you take backups using Lambda?
- Component of VPC
- Difference between EC2 and ECS
- Types of storage in AWS?
- What is DNS? Uses?
- Why you won't go with EC2 for installing Database? Why RDS?
- What is Load Balancer

- What is VPC Peering
- What is CloudFront
- What is the use of the IAM role?
- How many subnets assign to the routing table?
- What is the static IP?
- How will get access to private subnets?
- Can you increase the size of root volume without shutdown the instance?
- What is ELB? How many types are there?
- What is auto scaling?
- What is hosted zone and uses of record set?
- Types in R53?
- How will take up backup for volumes?
- How to encrypt the root volume?
- How will access AS account?
- What is the subnet group in DB?
- How do you connect to windows instances?
- Port numbers of RDP, SSH, and HTTPS?
- What is the difference between EBS, S3, and EFS?
- What type of data do you store in s3 and EBS?
- What is s3 Replication?
- Why use events in cloud watch in AWS?
- What is the difference between VPC level security and system level security?
- If you lost the pem file then how will you connect to EC2?
- You want to store temporary data on an EC2 instance. Which storage option is ideal for this purpose?
- How do you configures3 bucket?
- What are EC2 and VPC how we create & write a script?
- Difference between Vagrant and AWS?
- What is the use of EC2 AMI?
- What is the use case of S3 Bucket?
- My webservers are running in private subnet I want to route my ELB Traffic to web servers in private subnets?
- What is NAT Instance/NAT Gateway?
- What is NACL and Security Group
- If my RDS is running out of space how will you resolve that without launching other RDS?
- What is Lambda and how it works?

- How will you take backups using Lambda?
- Types of storage in AWS?
- Difference between S3 & Glacier?
- Components of VPC?
- Difference between EC2 and ECS?
- What is DNS? Uses?
- Why you won't go with EC2 for installing Database? Why RDS?
- What is AWS?
- What is a cloud?
- What is EC2?
- What is VPC?
- What is AZ?
- What is ELB?
- What is VPC peering?
- What is the aim of VPC peering?
- Why use VPC peering, real-time example?
- What is Security Group?
- What is cloud front/CDN?
- What is a lambda, what is the use of it?
- What have you developed using Lambda?
- What is automation have you done for with lambda?
- What is cloud watch?
- What is cloud formation?
- S3 lifecycle?
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- What type of data do you store in s3 and EBS?
- Replication s3?
- Why use events in cloud watch in AWS?
- What is the difference between VPC level security and system level security?
- If you lost the pem file then how will you connect to EC2?
- What IAM Role and policy?
- How will run lambda and where you will configure lambda?
- How lambda run on secluding and event-based?
- What is cloud watch? Have you configured any custom metrics?
- What are the metrics available on your dashboard?
- How do you configure CPU Utilization on your dashboard?
- How can I attach SSL for the s3 bucket?
- S3 bucket having a policy for only read-only but you're having full access for you? Can you
- What is CDN?
- How will attach policy for IAM users by group or individual?
- Have you used any tool for creating customized AMIS?
- What is connection draining?
- How your ELB shares traffic?
- What is auto-scaling?
- Types of Load Balancers and example?
- What is the run time of Lambda?
- What is the memory size of lambda?
- How can I run lambda for more time?
- By using lambda what are automation you're performed in your project?
- Why you're not using boto3 for infrastructure provisioning?
- What are the modules you used in Lambda?
- Have created SNS topic?
- In your VPC all IPS are finished you have a requirement for resources how to provision it?
- What is access key and secret key?
- What is CORS in s3?
- What type of ELB you used in the project?
- Difference between EBS and NFS?

- Different types of storage in S3?
- Can you explain how you have used Amazon CloudFront to improve content delivery and performance, including any techniques you have used to set up caching, SSL/TLS, or geo-restriction?
- How have you used AWS Identity and Access Management (IAM) to manage access control and permissions for AWS services and resources, including any techniques you have used to set up policies or integrate with other authentication and authorization systems?
- Can you explain what AWS Cloud is and how it is used in software development and deployment?
- How have you used AWS Cloud to deploy and manage infrastructure, including any techniques you have used to set up virtual servers, databases, and storage?
- Can you describe your experience using AWS Cloud to manage and scale applications, including any techniques you have used to set up load balancing, auto-scaling, and fault tolerance?
- How have you used AWS Cloud to manage security and compliance, including any techniques you have used to set up network security, access control, and compliance audits?
- Can you explain how you have used AWS Cloud to integrate with other tools and services in the development pipeline, such as continuous integration and deployment platforms or artifact repositories?
- How have you used AWS Cloud to monitor and troubleshoot applications and infrastructure, including any techniques you have used to set up logging, monitoring, and alerting?
- Can you describe your experience using AWS Cloud to manage data and analytics, including any techniques you have used to set up data pipelines, data warehousing, and machine learning?
- How have you used AWS Cloud to manage hybrid or multi-cloud environments, including any techniques you have used to set up hybrid architectures, manage data across different clouds, or integrate with on premise infrastructure?
- Can you explain how you have used AWS Cloud to manage cost optimization and billing, including any techniques you have used to set up cost monitoring, budgeting, and optimization?
- How have you used AWS Cloud to manage compliance and regulatory requirements, including any techniques you have used to set up compliance audits, implement data protection policies, or manage GDPR requirements?
- You have a web application that needs to scale dynamically to handle spikes in traffic. How would you use AWS Cloud to achieve this?

- You are tasked with setting up an architecture for a new application that must be highly available and fault-tolerant. How would you go about designing this architecture in AWS Cloud?

- Your company has a large amount of data that needs to be stored and analyzed. How would you use AWS Cloud to set up a data warehouse and analysis system?

- You are tasked with migrating an existing application to AWS Cloud. What steps would you take to ensure a successful migration?

- Your application requires a high level of security and compliance. How would you use AWS Cloud to ensure the security and compliance requirements are met?

- You are working with a team that needs to collaborate and share code in a secure and efficient manner. How would you use AWS Cloud to set up a secure code repository and collaboration environment?

- You need to implement a disaster recovery plan for your application. How would you use AWS Cloud to set up a disaster recovery solution that meets your needs?

- Your application has specific performance requirements. How would you use AWS Cloud to set up a performance monitoring and optimization solution?

- You need to set up a system to handle real-time streaming data. How would you use AWS Cloud to set up a real-time data processing and analysis system?

- You have a globally distributed user base that requires low-latency access to your application. How would you use AWS Cloud to set up a content delivery network (CDN) to improve performance?

- Can you describe your experience with AWS CloudFormation and how you have used it to manage infrastructure as code?

- How have you used AWS Lambda to automate tasks and build serverless applications, including any techniques you have used to set up event-driven architecture or manage deployment and scaling?

- Can you discuss your experience using Amazon S3 to store and manage object data, including any techniques you have used to set up versioning, access control, or lifecycle policies?

- How have you used Amazon EC2 to manage virtual machines and scale applications, including any techniques you have used to manage instance types, security groups, or auto scaling?

- Can you explain how you have used Amazon RDS to manage relational databases, including any techniques you have used to manage backups, scaling, or replication?

- How have you used Amazon Elastic Load Balancing to distribute traffic across instances and improve application availability, including any techniques you have used to set up health checks or manage cross-zone load balancing?

- Can you describe your experience using Amazon VPC to isolate and secure your cloud resources, including any techniques you have used to set up subnets, security groups, or VPN connections?

- How have you used Amazon Route 53 to manage DNS and routing for your cloud applications, including any techniques you have used to set up traffic policies or integrate with other AWS services?
- My webservers are running in private subnet I want to route my ELB Traffic to web servers in private subnets?
- What is NAT Instance/NAT Gateway?
- If my RDS is running out of space how will you resolve that without launching other RDS?
- Difference between Vagrant and AWS?
- What is use of AMI?
- What is the purpose and use of s3 bucket?
- Explain me how do you take backups for RDS?
- Do you any knowledge on setting up Big Data cluster?
- How does auto scaling work?
- What type of ELB you used in the project?
- Are you only using cloud watch for monitoring?
- What is Lambda?
- How does it work?
- I want to run my job today at 5 pm how do you configure?
- Difference between Classic ELB and Application ELB?
- What is auto scaling?
- What is the launch configuration in auto scaling?
- Different types of storage in S3?
- Difference between EBS and NFS?
- What are Glacier and Snowball?
- What has required one resource in was to communicate with other resources?
- Have you worked in any implementation in AWS?
- Can you provide the step by steps instructions, if you want to implementation any services for example lambda? What are the procedures?
- What are the things you have been taken care in order to implementation then services in AWS?
- How do you deploy lambda and how do you configure lambda functions?
- How do you monitor the lambda functions?
- Have you configured Route53? Can you explain step by step procedures?
- What needs to be done in order to configure the Route53 and what are the things need to be taken care during implementation?

- Let's say, some development team wants to implement their services, so what is your take a so how do you get started doing that recommend?
- For example, someone want to use AWS micros services they want to implement in aws services?
- What is your approaches and what are the things passes need to be taken care as part of implement this micro services in AWS?
- What are the cloud implementation tool you use?
- Can you explain how you will use Terraform for implementation?
- For security like IAM role or policy we can manage it terraform or CDK itself
- For Cost Optimization? What kind of cost optimization you have done?
- In production we are being monitored by CloudWatch for DynamoDB Instance?
- We are Kinley looking into the cost billing we get from the AWS, Suddenly business came to reach us they said like we are get billing hit to double. Last week we are paying like 15k but suddenly now its double. its 100k bills from AWS
- Can you please find out root cause with DynamoDB what's wrong with DynamoDB utilization?
- In this case what is internal approaches to troubleshoot for this case?
- During CDN CloudFront implementation what parameters need to take care?
- What will be the best approached to reduce the traffic to the origin and how do we start with it.
- Have you worked on any log management tools like Kibana, Splunk or Google Analytics for metrics?
- How to choose right instance size? What type of questions you will ask to the Business to choose right instance size?
- What is the use cases for EC2
- Let's say I have received one request to create ec2 and install web server like nginx, so what information you needed before provision this setup.
- I want to install nginx or apache web server when my ec2 launch. So how do I configure it?
- Let's say you have received request to migrate ec2 instance to another aws account. How you can migrate. What is the best approach to migrate ec2 instance?
- What are the checks for ec2 instance
- I want to launch ec2 instance with fixed private ip address?
- What is the difference between ec2 ami and snapshot
- Let's my ec2 instance private key lost. Then how I can connect to ec2 instance. It's a production server.
- My production server disk space getting full. How I can increase the space without taking any down time.

- if my server disk space getting full but during inspection i found that all application code size are find just web server logs consuming disk space, so without using rm command how to clear those logs and make disk space free.
- How to handle large amount of traffic for specific period of time during events by using load balancer?
- How many type of targets we can configure for load balancer
- Let's say I have 2 ec2 instance behind load balancer, I want to configure like for specific user request should go to specific server for some period of time.
- How to find load balancer ip.
- What is the default load balancing method?
- I have 100 users in my organization
- I want to give full permission for some users let's say for 50 user
- for rest of the users limited access
- What will be best way to configure this?
- What is the difference between AWS root user and power user
- What is the difference between iam user and role
- I want my s3 bucket accessible for only specific network. How to configure this.
- What is the default storage class for s3 bucket?
- I want to give my s3 bucket data access for only limited time. how we can configure this setup
- How to host static website by using s3 bucket and cloudfront, Here make sure entire bucket should not be public accessible.
- Why should not we use default VPC
- Let's say we got the requirement to design VPC for infrastructure, How will you design best VPC architecture, What component will you consider for better security
- When we create VPC, What component will create auto with vpc
- What is vpc peering and its use
- What is the process to create vpc peering
- If you have one EC2 instance in private subnet then, how will you patch and upgrade using internet. How will you provide internet for that
- What is public and private subnet
- How to define its public or private
- When we create EC2 it will get default public IP. So, How to disable that
- Diff between NACL and SG
- What is VPC endpoint
- Any one of the services quota get exceed then how to resolve it or any action
- I have an on prem data center and want private connectivity between AWS network to on prem. How to configure it and which services

- IP VPC OR subnet IP range got occupy by all server then what action do we need to perform.
- Explain the purpose of a VPC's route tables. How are they associated with subnets?
- What is a Virtual Private Network (VPN) connection in the context of AWS VPC? How does it differ from Direct Connect?
- What is VPC Flow Logs, and why would you enable them?
- What is AWS Private Link, and how does it enhance security in a VPC?
- Describe the process of migrating an EC2 instance from one VPC to another.
- What are the different IPv6 addressing options and features available in VPC?

❖ Linux

- In Ubuntu sever what is a public key and private key?
- Write a script what you are done daily?
- #chmod 444 <filename.txt?> in root user? Change the above permissions to 777?
- #curl www.google.com is not working and telnet www.google.com is working now?
- I am having two instances in public and private subnets, I am pinged from one server to another server and getting any response but by using telnet on port 23 it's working now?
- What is SSL? And how it works internally?
- Mostly asked on networking, ports, and protocols
- What is Lambda and how it works?

❖ Jenkins

- How do you configure the job in Jenkins?
- Difference between ant and maven?
- Maven lifecycle?
- Where do you find errors in Jenkins?
- How do you integrate SonarQube in Jenkins?
- In Jenkins how can you find log files?
- Jenkins workflow and write a script for this workflow?
- Have you worked on maven scripts?
- Maven lifecycle?
- About pom.xml?
- How build job in Jenkins?
- How to create continuous deployment in Jenkins?
- What is Poll SCM?
- In Jenkins how to give backup from one server to another server?

- The flow of SonarQube? Why we use it?
- What is the use of quality gates in SonarQube?
- Suppose we give 30 % quality I want you to define in quality gates?
- Why we use pipeline in Jenkins? Flow?
- What is Release management due to production?
- The flow of SonarQube? Why we use it?
- What is the use of quality gates in SonarQube?
- Suppose we give 30 % quality I want you to define in quality gates?
- Jenkins full flow?
- What is the build trigger?
- Did you use only SonarQube for static code analysis?
- What are the plugins have used in the project?
- Dependencies in pom.xml? What dependency have you used in your project?
- Jenkins Workflow
- How to build a job in Jenkins by using Git and maven?
- What is the use of maven in Jenkins?
- Where can you find the particular error in logs?
- Explain Jenkins CI/CD?
- What type of deployments do you follow in your project?
- Where do you check build logs in Jenkins?
- What is the difference between a Jenkins file and a pipeline script?
- How do you create a pipeline in Jenkins?
- How can you schedule a build in Jenkins?
- What is the difference between a freestyle project and a pipeline in Jenkins?
- How do you create a backup of Jenkins?
- How to recover crashed Jenkins master?
- How to configure Jenkins master-slave architecture
- What are some common plugins used in Jenkins?
- How do you install Jenkins and configure a Jenkins job?
- What are some of the key features of Jenkins?
- How do you integrate Jenkins with other tools and technologies?
- What is a Jenkins pipeline and how do you create one?
- How do you secure your Jenkins instance?
- How do you troubleshoot issues with Jenkins builds?
- What are some best practices for using Jenkins?
- How do you configure Jenkins agents?

❖ Git

- Differences between Git rebase and Git merge?
- Git workflow?
- What is Git init?
- What is Git clone?
- If there is suddenly the file is deleted in Git and how do you get it back?
- Difference between SVN and GIT?
- Difference between ant and maven?
- What are the version control tools are using in the present market?
- What is Git commit
- Git push and fetch?
- How to create a repository in GitHub?
- How to push the file in the GitHub flow?
- About branching strategies?
- Difference between GitHub and Bit Bucket?
- Use of Git commit and purpose?
- Difference between rebasing and merge?
- What is Maven repositories?
- Explain about GIT Branching in your project?
- Can you describe your experience with Git and GitHub, and how you have used these tools in your previous roles?
- What are some of the key benefits of using Git for version control, and how have you seen these benefits in your work?
- Can you discuss your experience using Git to manage changes to code and collaborate with other developers, including any techniques you have used to manage conflicts and merge changes?
- How have you used Git branching and tagging strategies to manage releases and versioning, particularly in large code bases or complex projects?
- Can you explain how Git hooks work and how you have used them to automate workflows or enforce coding standards?
- How have you used GitHub to implement code reviews and ensure code quality, including any techniques you have used to enforce coding standards or identify and fix bugs?
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- Can you explain how you have used Git hooks to automate workflows or enforce coding standards, and any techniques you have used to implement custom hooks?

- How have you used GitHub to implement continuous integration and continuous deployment workflows, including any techniques you have used to automate testing, building, and deploying code?
- Can you describe your experience using Git and GitHub for version control, and how you have used these tools in your previous roles?
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- Can you explain how Git hooks work and how you have used them to automate workflows or enforce coding standards?
- Can you discuss your experience using GitHub to manage code repositories, including any techniques you have used to manage permissions and access control?
- How have you used GitHub issues and pull requests to manage code changes and collaborate with other developers, including any techniques you have used to automate workflows or integrate with other tools like CI/CD pipelines?
- Can you explain how you have used GitHub actions to automate workflows, including any techniques you have used to build, test, and deploy code?
- Can you discuss your experience using GitHub to manage open source projects, including any techniques you have used to manage contributions and engage with the community?
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- How have you used GitHub to implement continuous integration and continuous deployment workflows, including any techniques you have used to automate testing, building, and deploying code?
- Can you describe your experience using GitHub Actions to automate workflows, and how you have used this tool in your previous roles?
- What are some of the key benefits of using GitHub Actions, and how have you seen these benefits in your work?
- Can you explain how you have used GitHub Actions to build, test, and deploy code, including any techniques you have used to manage dependencies and configure environments?
- How have you used GitHub Actions to implement custom workflows or automate custom processes, and what techniques have you used to customize actions or integrate with external tools?
- Can you discuss your experience using GitHub Actions to implement continuous integration and continuous deployment workflows, including any techniques you have used to automate testing, building, and deploying code?
- How have you used GitHub Actions to manage security and compliance policies, particularly in regulated or multi-tenant environments, and what techniques have you used to ensure compliance with industry standards?
- Can you explain how you have used GitHub Actions to monitor and manage resource usage, including any techniques you have used to optimize costs or manage resources at scale?
- How have you used GitHub Actions to implement code reviews and ensure code quality, including any techniques you have used to automate code analysis, enforce coding standards, or identify and fix bugs?
- Can you discuss how you have used GitHub Actions to manage documentation, including any techniques you have used to automate the generation or publishing of documentation?
- Can you describe your experience using GitHub Actions to manage open source projects, including any techniques you have used to manage contributions, engage with the community, or implement code reviews and quality controls?
- Can you describe your experience using GitHub Actions to automate workflows in your previous roles?
- How have you used GitHub Actions to build, test, and deploy code, and what are some of the key benefits of this approach?
- Can you explain how you have used GitHub Actions to integrate with other tools and services, such as cloud providers, testing frameworks, or code analysis tools?
- How have you used GitHub Actions to manage environment variables and secrets, and what are some best practices for managing sensitive information in your workflows?

- Can you describe your experience with creating custom GitHub Actions, and how you have used them to automate workflows unique to your organization or project?
- How have you used GitHub Actions to manage multiple workflows and triggers, and what are some best practices for organizing and managing these workflows?
- Can you explain how you have used GitHub Actions to manage notifications and alerts, including any techniques you have used to automate these notifications?
- How have you used GitHub Actions to implement compliance and security controls, including any techniques you have used to enforce policies or scan code for vulnerabilities?
- Can you discuss your experience using GitHub Actions for continuous integration and continuous deployment, including any techniques you have used to automate testing, building, and deploying code?
- How have you used GitHub Actions to manage the development and release cycles of software projects, including any techniques you have used to manage multiple branches or versions of code?

❖ Docker

- What is Docker file how it works?
- What is Docker volume?
- What is the purpose of Docker?
- Difference between Docker and Ansible?
- What is the purpose and use of Docker?
- How to write Docker file?
- Explain any 5 Docker commands?
- Explain about COPY and ADD options
- Explain about ENTRYPOINT
- Docker file structure?

❖ Kubernetes

- What is Kubernetes?
- Explain Kubernetes architecture?
- Can you describe your experience using Kubernetes to manage containerized applications and services in your previous roles?
- How have you used Kubernetes to orchestrate container deployments and manage container lifecycle, including techniques for scaling, updating, and monitoring containers?
- Can you explain how you have used Kubernetes to manage network and storage resources, including any techniques you have used to configure load balancers or persistent storage?
- How have you used Kubernetes to manage configuration and secrets, including any techniques you have used to manage environment variables or securely store sensitive information?

- Can you describe your experience using Kubernetes to manage multi-tenant environments and resource allocation, including any techniques you have used to manage namespaces or quotas?
- How have you used Kubernetes to implement fault tolerance and disaster recovery, including any techniques you have used to manage backups or implement rolling updates?
- Can you discuss your experience using Kubernetes for service discovery and load balancing, including any techniques you have used to implement ingress controllers or service meshes?
- How have you used Kubernetes to implement security controls, including any techniques you have used to manage user permissions or implement network policies?
- Can you explain how you have used Kubernetes to integrate with other tools or services, such as CI/CD pipelines or logging and monitoring platforms, to automate workflows or manage application deployments?
- How have you used Kubernetes to manage stateful applications and databases, including any techniques you have used to manage persistent storage or implement StatefulSets?
- Can you describe your experience managing Kubernetes clusters, including any techniques you have used to automate cluster deployments or upgrades?
- How have you used Kubernetes to manage containerized applications, including any techniques you have used to scale, monitor, or secure applications running in your clusters?
- Can you explain how you have used Kubernetes to manage networking and storage resources, including any techniques you have used to integrate with external storage providers or load balancers?
- How have you used Kubernetes to manage stateful applications, including any techniques you have used to deploy and manage databases or other stateful services?
- Can you describe your experience using Kubernetes to manage and deploy micro services architectures, including any techniques you have used to manage service discovery or handle network traffic between services?
- How have you used Kubernetes to implement continuous integration and deployment pipelines, including any techniques you have used to automate testing, building, and deploying containerized applications?
- Can you discuss your experience using Kubernetes to implement security controls, including any techniques you have used to manage user access or implement network policies?
- How have you used Kubernetes to manage different types of workloads, such as batch processing jobs or machine learning workloads, including any techniques you have used to optimize performance or manage resources?
- Can you explain how you have used Kubernetes to manage multiple clusters or hybrid cloud environments, including any techniques you have used to manage workload portability or implement federation?
- How have you used Kubernetes to manage and troubleshoot issues in production environments, including any techniques you have used to diagnose and resolve performance or availability issues?
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❖ Terraform

- Why Terraform? Why not others?
- Can Terraform used for another cloud provisioning?
- From where you run Terraform?
- How many environments you are maintaining?
- Write Terraform code for an S3 bucket and attach a policy?
- Write a Terraform code for EC2?
- What is Terraform, and how have you used it in your previous roles?
- How does Terraform differ from other infrastructure as code tools like CloudFormation or Ansible?
- Can you explain how Terraform manages infrastructure resources across multiple providers, including public cloud, private cloud, and on-premises infrastructure?
- How do you ensure that your Terraform code is reusable, modular, and maintainable over time?
- Can you describe how you have used Terraform to implement infrastructure as code in a CI/CD pipeline?
- Can you discuss how you have implemented version control for your Terraform code using tools like Git?
- How have you used Terraform modules to modularize your infrastructure code and reuse code across different environments?
- Can you explain how Terraform handles dependencies between resources, and how you have managed these dependencies in your code?
- Can you describe your experience using Terraform to manage Kubernetes resources and infrastructure?
- How have you used Terraform to implement security and compliance policies, particularly in multi-tenant and regulated environments?
- Can you describe your experience with Terraform and how you have used it in your previous roles?
- What are some of the key benefits of using Terraform for infrastructure as code, and how have you seen these benefits in your work?
- Can you explain how Terraform manages infrastructure resources across multiple providers, including public cloud, private cloud, and on-premises infrastructure?
- How do you ensure that your Terraform code is reusable, modular, and maintainable over time?
- What is Terraform, and how have you used it in your previous roles?
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- Can you discuss how you have implemented version control for your Terraform code using tools like Git, and how you have managed changes to your infrastructure over time?
- How have you used Terraform modules to modularize your infrastructure code and reuse code across different environments?
- Can you explain how Terraform handles dependencies between resources, and how you have managed these dependencies in your code?
- Can you describe your experience using Terraform to manage AWS resources and infrastructure, and any challenges you have faced in doing so?
- How have you used Terraform to implement security and compliance policies, particularly in multi-tenant and regulated environments?
- Can you describe your experience with Terraform and how you have used it in your previous roles, particularly in large-scale and complex environments?
- What are some of the key benefits of using Terraform for infrastructure as code at scale, and how have you seen these benefits in your work?
- Can you explain how Terraform manages infrastructure resources across multiple providers, including public cloud, private cloud, and on-premises infrastructure, and how you have managed these resources in your work?
- How have you ensured that your Terraform code is reusable, modular, and maintainable over time, particularly in large and complex environments?
- Can you describe how you have used Terraform to implement infrastructure as code in a CI/CD pipeline, and how you have managed changes to your infrastructure over time?
- Can you discuss how you have implemented version control for your Terraform code using tools like Git, and how you have managed changes to your infrastructure over time?

- How have you used Terraform modules to modularize your infrastructure code and reuse code across different environments, and what challenges have you faced in doing so?
- Can you explain how Terraform handles dependencies between resources, and how you have managed these dependencies in your code in large and complex environments?
- Can you describe your experience using Terraform to manage infrastructure in multi-cloud and hybrid cloud environments, and any challenges you have faced in doing so?
- How have you used Terraform to implement security and compliance policies, particularly in multi-tenant and regulated environments, and what best practices have you followed to ensure compliance with industry standards?
- Can you describe your experience with Terraform and how you have used it in your previous roles, particularly in large-scale and complex environments?
- How have you used Terraform to manage infrastructure resources across multiple providers, including public cloud, private cloud, and on-premises infrastructure?
- Can you discuss your experience using Terraform to implement infrastructure as code in a CI/CD pipeline, including any challenges you have faced and how you have addressed them?
- Can you explain how Terraform handles state management and how you have managed state in your Terraform code, particularly in dynamic environments?
- How have you used Terraform modules to modularize your infrastructure code and reuse code across different environments, and what techniques have you used to manage dependencies between modules?
- Can you describe your experience using Terraform to manage Kubernetes resources and infrastructure, including any challenges you have faced and how you have addressed them?
- Can you discuss how you have used Terraform to implement security and compliance policies, particularly in multi-tenant and regulated environments, and what techniques you have used to ensure compliance with industry standards like HIPAA or PCI?
- Can you explain how you have used Terraform to implement cost optimization strategies, including any techniques you have used to monitor and manage resource usage over time?
- Can you describe your experience using Terraform to manage infrastructure automation at scale, including any techniques you have used to manage and maintain large code bases over time?
- How have you used Terraform to implement infrastructure testing and validation, including any techniques you have used to ensure that your infrastructure code is correct and free from errors?

❖ Ansible

- How to deploy to 100 servers at a time?
- Have you worked on Ansible modules?
- How do you configure Ansible in Jenkins?
- By using Ansible how to deploy in Jenkins?
- What is the use of Ansible?
- What is configuration management?
- What are the modules you have used in Ansible?

- Location and configuration file in Ansible?
- Write a sample playbook?
- What is the Ansible modules?
- Have used any pre-defined modules in your project?
- Write a sample boto3 script?
- Why Ansible?
- What is Ansible, and how have you used it in your previous roles?
- Can you explain the difference between Ansible and other configuration management tools like Puppet or Chef?
- How have you used Ansible to automate the deployment of applications and infrastructure?
- Can you describe how you would use Ansible to manage a large, distributed infrastructure?
- How have you used Ansible to manage and maintain application configuration files and templates?
- Have you used Ansible in conjunction with other tools like Docker or Kubernetes, and if so, how did you integrate them?
- Can you explain how Ansible uses inventory files, and what strategies have you used to manage large inventories?
- Have you implemented custom Ansible modules or plugins, and if so, can you describe them?
- How do you ensure that your Ansible playbooks are idempotent, and what are some techniques you have used to test this?
- Can you describe a particularly challenging Ansible deployment or automation project you worked on and how you overcame any obstacles?
- How is Ansible different from other configuration management tools like Puppet and Chef?
- How does Ansible use YAML files, and what are the benefits of using YAML in Ansible?

❖ Monitoring

- Which monitoring tools are used in Project?
- How Grafana monitoring works
- Explain about Prometheus
- How to export CloudWatch Logs to Grafana
- What is ELK?

❖ Bash Scripting

- Write a program to count no of times each word present in the string and save it in the dictionary?
- Three members have same password one I have to change write a script for this example?
- Write a script for how to push the repository and build the job in Jenkins?

- What are EC2 and VPC how we create & write a script?
- How have you used Bash shell scripts to implement version control and manage changes to code, including any techniques you have used to automate testing or build processes?
- Can you describe your experience using bash shell scripts to automate tasks in your previous roles?
- How have you used bash scripting to manage and manipulate files and directories, including any techniques you have used to automate backups or file transfers?
- Can you explain how you have used bash scripts to manage processes and system resources, including any techniques you have used to monitor or optimize performance?
- How have you used bash scripts to automate repetitive tasks, such as configuring system settings or setting up new users?
- Can you describe your experience using bash scripts for system administration tasks, including any techniques you have used to automate server configurations or manage network settings?
- How have you used bash scripts to interact with APIs or web services, including any techniques you have used to parse and manipulate data?
- Can you discuss your experience using bash scripts for debugging and troubleshooting, including any techniques you have used to diagnose and fix errors or issues?
- How have you used bash scripts to implement security controls, including any techniques you have used to manage user permissions or implement firewalls?
- Can you explain how you have used bash scripts to automate software installations and updates, including any techniques you have used to manage dependencies or configure application settings?
- How have you used bash scripts to integrate with other tools or services, such as version control systems or continuous integration platforms, to automate workflows or tasks?
- Can you describe your experience with writing Bash shell scripts, and how you have used them in your previous roles?
- What are some of the key benefits of using Bash shell scripts, and how have you seen these benefits in your work?
- Can you explain how you have used Bash shell scripts to automate tasks or workflows, including any techniques you have used to manage input and output?
- How have you used Bash shell scripts to manage system resources, such as disk space or memory usage, and what are some best practices for monitoring and optimizing system performance?
- Can you discuss your experience using Bash shell scripts to manage user accounts and permissions, including any techniques you have used to enforce security policies or automate user management?
- How have you used Bash shell scripts to manage file systems and directories, including any techniques you have used to automate backups or file transfers?
- Can you explain how you have used Bash shell scripts to manage networking and communication, including any techniques you have used to automate network configuration or monitor network traffic?
- How have you used Bash shell scripts to manage software installations and updates, including any techniques you have used to automate package management or dependency resolution?

- Can you discuss your experience using Bash shell scripts to manage logging and error handling, including any techniques you have used to monitor system logs or generate alerts?
- How have you used Bash shell scripts to implement version control and manage changes to code, including any techniques you have used to automate testing or build processes?
- Can you describe your experience using bash shell scripts to automate tasks in your previous roles?
- How have you used bash scripting to manage and manipulate files and directories, including any techniques you have used to automate backups or file transfers?
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❖ CICD Pipelines

- What is CI/CD?
- Explain complete CICD pipeline

❖ SonarQube

- Can you explain what SonarQube is and how it is used in the software development lifecycle?
- How have you used SonarQube to enforce code quality standards, including any techniques you have used to set up custom rules or analyze specific languages or frameworks?
- Can you describe your experience using SonarQube to track technical debt and prioritize code refactoring efforts, including any techniques you have used to set up quality gates or integrate with other tools?
- How have you used SonarQube to analyze code coverage and identify areas of the codebase that may require additional testing, including any techniques you have used to set up code coverage metrics or integrate with test automation tools?
- Can you discuss your experience using SonarQube to manage security vulnerabilities and code-level security risks, including any techniques you have used to set up static analysis scans or integrate with vulnerability scanners?
- How have you used SonarQube to manage code reviews and collaboration among team members, including any techniques you have used to set up code review workflows or integrate with version control systems?
- Can you explain how you have used SonarQube to manage technical documentation, including any techniques you have used to set up documentation generation or integrate with documentation tools?
- How have you used SonarQube to track and manage technical debt and technical backlog, including any techniques you have used to prioritize technical tasks or integrate with project management tools?
- Can you describe your experience using SonarQube to integrate with other tools and services in the development pipeline, such as continuous integration and deployment platforms or artifact repositories?
- How have you used SonarQube to measure and report on code quality metrics and trends, including any techniques you have used to set up dashboards or integrate with reporting tools?

❖ Real-Time Troubleshooting

- My application suddenly stop working? explain process to resolve this issue
- My EC2 disk space getting full for Linux? How to increase disk space?
- Auto Scaling not working as expected? Which parameter need to check?
- My application is working very slowly? How to fix and what things to check?
- AWS account bill are huge, how to control the infra cost
- AWS bill suddenly increase. Explain me process to figure out root case
- After deployment application is not working. How to roll back last stable version in Jenkins?

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