# DevOps Interview Questions

### Linux::

- Command to get list of all files and folders
- Is command options
- What columns you see when you run Is -I
- Why some entries in Is -I start with I
- Commands to create files/directories in Linux
- Commands to remove files, directories, and directory content
- Command to create a directory within another directory
- What are all the file modes
- grep, sed, awk, cut usage and examples
- top command usage
- kill command usage
- Command to remove 30+ days old log files
- Command to check file existence
- Command to give read & write permission to owner, and read-only to group & others
- Command to change owner
- Commands to check CPU, memory, disk space
- Command to start a service
- Difference between apt, yum, and dnf
- Command to check open port
- Command to show all running processes

## 💁 Git & GitHub::

- Git vs GitHub
- git pull vs git fetch
- git clone vs git fork
- git reflogs
- git stash
- git merge vs git rebase
- git revert vs git reset
- git push vs git cherry-pick
- Git command to clone a specific branch
- Branching strategy in your project
- How you secure credentials
- How you resolve merge conflicts

## Shell/Python Scripts::

- Is it mandatory to add shebang (#!/bin/bash) at the beginning of scripts?
- Script to get 30+ day old directories and remove them if 90%+ disk usage
- Script to check if file exists if not, create it
- Script to check if a number is even or odd
- Script to find the maximum of 3 numbers
- Script to automate start, restart, and shutdown of Azure VMs
- Script to find and remove files older than 30 days
- Script to reverse a string

### Ansible::

- Why Ansible?
- What are Ansible roles?
- What are Ansible handlers?
- What is inventory file in Ansible?
- Types of inventories
- How to use conditions in Ansible playbooks

### 🐧 Docker::

- What is Docker?
- Docker vs Kubernetes
- Command to build a Dockerfile
- Difference between image and container
- How to write a Dockerfile
- CMD vs ENTRYPOINT
- COPY vs ADD
- Command to get list of all containers
- Command to view docker logs
- What is Docker Compose?
- What are multi-stage builds in Docker?

## Terraform::

- What is Terraform?
- What are providers in Terraform?
- How to create infra in multiple regions with multiple providers?
- How to use different .tfvar files for different environments?
- What happens if infra is removed manually and you run terraform apply?
- What happens if someone deletes the statefile?

- Write a Terraform file to create a Virtual Machine
- What are Terraform modules?
- Write a simple Terraform module
- Difference between variables.tf and var.tfvars
- count vs for each
- Dynamic block usage
- Workspaces in Terraform
- Locals in Terraform
- Terraform lifecycle explained

### Jenkins::

- Write a sample cicd.yaml file
- What are the different types of pipelines?
- How to integrate SonarQube with Jenkins
- How Jenkins automatically triggers pipeline on GitHub push
- Why use SonarQube?

#### Azure & Azure DevOps::

- What is a Service Connection and how to implement it?
- How to store secrets/confidential info in Azure securely?
- Different types of data storage options in Azure
- Logic Apps, Gateways, Load Balancing, Event Hub, etc.
- Why Azure DevOps?
- How to connect Azure DevOps with Azure
- What is Environment in Azure DevOps?
- What is Scope in Azure DevOps?
- Write a YAML pipeline for deployment
- Creating secrets in Azure Key Vault vs Azure DevOps portal differences and when to use which
- VM failure what could be the reasons?
- What is a VM Scale Set?
- If a CI/CD YAML pipeline has 5 stages and fails at a specific one in production what's your immediate action plan?