**Bash/Shell Scripting**

1. Write a bash script to monitor a log file and alert if a specific keyword appears.

2. Create a shell script that automates the backup of a directory to an S3 bucket.

3. Write a script to check if a service (e.g., nginx) is running and restart it if it’s not.

**Python Scripting**

1. Write a Python script to parse a JSON configuration file and apply the configurations.

2. Create a Python script that interacts with the AWS SDK to start/stop an EC2 instance.

3. Develop a Python script that reads from a CSV file, processes the data, and writes the output to a new CSV file.

**Docker**

1. Write a Dockerfile to containerize a simple Node.js application.

2. Create a Docker Compose file to set up a multi-container environment with a web application and a database.

3. Explain how you would optimize a Dockerfile to reduce the image size.

**Kubernetes**

1. Write a Kubernetes manifest file to deploy a web application with 3 replicas.

2. Create a YAML file for a Kubernetes ConfigMap and explain how you would use it in a Pod definition.

3. Describe the steps to create a Kubernetes Service to expose an application externally.

**Terraform**

1. Write a Terraform script to provision an AWS EC2 instance with a specific AMI and instance type.

2. Create a Terraform module that sets up an S3 bucket with versioning and encryption enabled.

3. Explain how you would manage secrets in Terraform securely.

**Jenkins**

1. Write a Jenkins pipeline script (Jenkinsfile) to build and deploy a Java application.

2. Create a Jenkins pipeline that triggers on a GitHub push event and runs unit tests.

3. Describe how you would use Jenkins to manage environment-specific configurations.

**Ansible**

1. Write an Ansible playbook to install and configure Apache on a remote server.

2. Create an Ansible playbook to deploy a web application and ensure it is running.

3. Explain how you would use Ansible Vault to manage sensitive information.

**Git**

1. Write a git command to squash the last three commits into a single commit.

2. Explain how to set up a Git hook to run a script before a commit is made.

3. Describe the steps to resolve a merge conflict in Git.

SQL