Question for all

1. Build CI / CD Pipeline using Jenkins and deploy the real world Web Application in AWS Cloud

Steps: 1. Create jenkins file using our in-house code repo [should be cloned from git/bitbucket]

2. Create Docker file in the same repository

3. Build-Docker image with tagging as build version, unit test cases should pass if any for the code

4. The Image should be available in ECR with build version as TAG

5. The Docker Image should be deployed to EC2 Machine

6. The EC2 Machine Need to open specific Inbound Port and restrict Access only for admin user to login

7. Jenkins Jobs should do validation and display successful message

8. Report should be sent to e-mail and it should contain status of each JOB

9. Domain should be registered with AWS

1. Project Description: Provisioning using Terraform and ansible

Goals:

1. Learning the best practices

2. Provisioning and configuring the Infra resources

Technologies Used: 1. Terraform 2. Ansible

Steps: 1. Installation of Terraform

2. Creating EC2 instances on AWS cloud using Terraform

3. Configure using ansible

4. Writing Terraform scripts

5. Integration of Terraform and Ansible for configuration management

1. Project Description: Kubernetes Cluster setup and demo

Goals: 1. Kubernetes is one of the most popular container orchestration tools available. The Container Orchestration will help you grasp the key skills, technology, and concepts that a Kubernetes administrator needs to know.

Technologies Used: 1. Docker 2. YAML 3. Kubernetes 4. Container Networking

Steps: 1. Installation and setup of Kubernetes cluster [EKS]

2. Configuring YAML files for K8s deployment

3. Autoscaling and Load Balancing in Kubernetes

4. Registering services through Kubernetes Deployment through Kubernetes

1. Project Description: Monitoring using Prometheus & Grafana

Goals: Creating a Dashboard to monitor the Kubernetes cluster and pipelines

Technologies Used: 1. Prometheus 2. Grafana

Steps:

1. Introduction to Prometheus and Grafana

2. Prometheus and Grafana Setup

3. Monitoring using Prometheus Dashboard Visualization using Grafana

4. Creating a Dashboard to monitor the Pipeline