

DevOps Practical Task

Time Duration: 2 Days

Task 1: Simple Node Js Application Deployment on Docker container

Description:

- Create a Dockerfile for a simple Node.js application that listens on port 3000. The Dockerfile should use a lightweight base image, install dependencies, copy the application code, and specify the command to run the application.

Deliverables: Dockerfile

Task 2: K8s Deployment

Description:

- Create a Kubernetes deployment configuration file (in YAML) for a web application. The deployment should have 3 replicas, use the `nginx:latest` image, and expose port 80. The configuration should also include a liveness probe and a readiness probe, also it should have guaranteed QOS for deployments.

Deliverables: Kubernetes deployment YAML file

Task 3: Resource Provisioning and configuration management through terraform and ansible

Description:

- Create a Terraform script to provision an ec2 instance with necessary security group and VPC configurations.
- Configure instance with nginx web server and other necessary configurations
- Deploy task1 node js application on the same nginx web server through Ansible.

Deliverables: Terraform scripts, Ansible configuration, Web server configuration files

Notes: You can use Github SVC to provide your deliverables, and share it with us. Make sure to have a Github Repo with public visibility.