DevOps Project

Project Code Repo : dotraining

Project Codebase Path : $GITROOT/Session-22/ProjectCode

Summary : This project mainly involves making use of the ProjectCode (Web App) & setting up CI/CD pipelines using the technologies covered in this training.

Pre-Requisites: Have the below tools configured.

1) Jenkins

2) GIT

3) Artifactory

4) Sonar

5) Snyk

6) Vagrant

7) Terraform

8) Ansible

9) AWS

10) Shell Scripting

11) Python (Optional)

Details : Setup a Jenkins pipeline (Declarative or Scripted) with below stages making use of the provided project codebase. Provide the input before deploying the codebase to validate the Sonar/Snyk scans.

Stage 1: Checkout the codebase using GIT.

Stage 2: Build the codebase & upload the artifacts to Artifactory.

Stage 3: Perform the Sonar scan aginst the codebase & generate a report.

Stage 4: Perform the OSS against the codebase using Snyk.

Stage 5: Create a ubuntu target machine using Vagrant which will be used for deploying our application.

Stage 6: Deploy the application to the target ubuntu machine making use of Ansible.
Setup key exchange from control machine to the target machine before hand using the ssh-key tool.

You can use either Shell scripting or Python to setup & deploy the application.

Stage 7: Create an EC2 instance in AWS using Terraform.

Stage 8: Make use of the AWS CLI & deploy the application code base to the AWS EC2 servers.

Acceptance Criteria : Codebase should be build & all the scans should be executed & deployed to both PSI/VSI using Ansible to the ubuntu servers & also to AWS CLoud using terraform & AWS CLI. Application should be up & running in both VSI & Cloud.