Jenkins

Duration: 2 Days

Hands-On Format: This hands-on class is approximately 80/20 lab to lecture ratio, combining engaging lecture, demos, group activities and discussions with comprehensive machine-based practical programming labs and project work.

Prerequisites: Linux Fundamentals

Module 1 – Introduction

What is CICD
Why Jenkins
Jenkins Getting Started

Module 2 – Installing Jenkins

Installing Jenkins
Install Jenkins on a VM
Jenkins CLI
Using Jenkins CLI

Module 3 – Jenkins Plugins and Integration

What are Plugins
Searching through Plugins
Installing a Plugin
Restarting Jenkins for Plugins that Require Restarts
Jenkins Steps and Plugin

Module 4 – Exploring the Jenkins UI

Jenkins Visuals
Signing in and Seeing the Visuals
Managing Users and Teams
Managing the System and Credentials
Build History and CICD Visuals

Module 4 – System Administration with Jenkins

Administering Jenkins
Backup and Restore Jenkins
Backup Jenkins
Restore Jenkins
Monitoring Jenkins
Prometheus

Module 5 – Pipelines

What is Jenkins File
Build a Jenkins File
Run a Simple Pipeline
Build a Multistage Pipeline
Build a CI Pipeline
Building a CD Pipeline
Full Pipeline Deployment

Module 6 – Build Agents

What are Build Agents
Using an Ubuntu Server as a Build Agent
Using the New Build Agent for a CICD Pipeline
Using Container Build Agents

Module 7 – Blue Ocean

What is Blue Ocean
Installing Blue Ocean
Creating a Pipeline
Blue Ocean Dashboard

Module 8 – Securing Jenkins

Jenkins Security
Managing and Enabling Security
Access Control for Builds
Security Pipeline Matrix