

GITLAB

Duration: 3 Days (8Hours per day)

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.

Module 1 – Introduction to CICD and GitLab

What is CI/CD?
What is GitLab
GitLab Features
GitLab Architecture

Module 2 – Creating Projects

Creating a New Project
Building the Project Locally
Short Introduction to Images and Docker
Building the Project using GitLab CI
Adding a Test Stage
Running a Jobs in Parallel
Running Jobs in the Background
Using Environment Variables for Managing Secrets
Deploying the Project using GitLab CI

Module 3 – Variables in GitLab CI/CD

What are GitLab CI/CD Variables?
Predefined GitLab Variables
Create Custom Variables
Secret Variables in GitLab

Module 4 – Integrating Docker and Kubernetes with GitLab

Build Docker Image with GitLab
Push Image to Central Image Registry
Integrating Kubernetes and GitLab CI
Automatic Deploy Application to Kubernetes

Module 5 – Artifacts

Defining Artifacts
Using Artifacts in Future Stages

Module 6 – GitLab Monitoring

Integrate Prometheus with GitLab
Check Metrics of GitLab Runners