

**Introduction to GitLab Administration**

**Course Number:** GIT-120WA  
**Duration:** 2 days

**Overview**

This Introduction to GitLab Administration training course teaches attendees the fundamentals of GitLab's components and architecture and how to successfully install, configure, and update GitLab.

**Prerequisites**

An understanding of the software development lifecycle and CI/CD process is helpful.

**Materials**

All GitLab training attendees receive comprehensive course materials.

**Software Needed on Each Student PC**

* Git 2.x or later
* GitLab and related files that Accelebrate provides
* Internet access for all attendees and the instructor

**Objectives**

* Understand the GitLab framework
* Deploy successful CI/CD environments
* Install, configure, and maintain tasks in GitLab
* Work with GitLab.com
* Understand the GitLab UI
* Use GitLab CE on AWS
* Import GitHub into GitLab

**Outline**

* Introduction to GitLab
  + What is GitLab
  + Big Bang Workflow - Where does GitLab fit?
  + History
  + Benefits
  + Features
  + Advantage and disadvantages
  + Gitlab Components
  + Setting up an Account
  + Create New Project
  + Choice for Projects
  + GitLab Commands
* Introduction to CI/CD and GitLab
  + Foundation of Agile AppDev
  + Extreme Programming
  + Agile Development
  + What is Continuous Integration (CI)?
  + Typical Setup for Continuous Integration
  + Setup Notes for Continuous Integration
  + CI with Artifact Management
  + What is Continuous Delivery (CD)?
  + Why Continuous Delivery?
  + DevOps and Continuous Delivery
  + Continuous Delivery Challenges
  + Continuous Delivery vs. Continuous Deployment
  + GitLab CI/CD
  + Running GitLab
  + Creating a GitLab Project
  + GitLab via YAML Templates
* Introduction to GitLab Flow
  + Environment Branches
  + Release Branches
  + Release Branches (Contd.)
  + Pros and Cons
* Best Practices for GitLab
  + Secure GitLab
  + Users
  + Build Directory
  + Shutdown
  + CI/CD
  + Optimize Pipeline Stages
* GitLab Administration
  + GitLab Administrator
  + GitLab Distributions
  + Installing GitLab
  + Installing GitLab on Linux
  + Guide to Linux Installations
  + GitLab on Amazon AWS
  + GitLab on Amazon Documentation
  + Official GitLab releases as AMIs
  + Pick the GitLab AWS Edition
  + EKS cluster provisioning best practices
  + Use eksctl
  + Gitaly
  + Get Started Administering GitLab
  + Example of Backing up GitLab SaaS
  + Alternative backup strategies
* Conclusion