

**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