

Introduction to GitLab - TTDV7553

Build real-world GitLab skills to manage code, work with teams, and streamline your software projects with confidence.

Duration: 2 Days

Skill Level: Introductory

Available Format: Instructor-Led Online; Instructor-Led, Onsite In Person ; Blended; On Public Schedule

Learn how to manage code, collaborate with your team, and simplify your daily development workflow using Git and GitLab. This hands-on class teaches you the skills you need to confidently create branches, resolve conflicts, track changes, and set up basic automation using CI/CD pipelines. Whether you are new to version control or want to clean up your habits and get more organized, this course gives you practical, real-world techniques you can use right away. It is a great fit for developers, QA engineers, DevOps teams, or anyone supporting software projects.

What You'll Learn

Overview

Version control is a foundational skill in modern software development, helping teams collaborate effectively, track changes, and deliver better software faster. GitLab, a powerful web-based DevOps platform built around Git, offers both developers and technical teams the tools to manage code, streamline daily workflows, and automate delivery. This expert-led, two-day class is designed to teach you how to work confidently with Git and GitLab, whether you are just getting started or want to strengthen your foundational skills.

This course is ideal for developers, engineers, QA professionals, technical project leads, or anyone involved in software development who needs to understand and contribute to version-controlled projects. You will learn how to manage branches, handle merge conflicts, rebase cleanly, and configure Git to suit your environment. You will explore techniques to review and clean up commit history, simplify your workflow

using aliases, stash changes, and work with remote repositories effectively. About half of the course is hands-on, giving you time to apply what you are learning to real-world scenarios with support from your instructor.

You will also gain experience using GitLab built-in tools for collaboration and automation. From using GitLab Flow to managing merge requests and working with CI/CD pipelines, you will learn practical techniques to improve quality, reduce errors, and support consistent delivery. By the end of the class, you will be ready to contribute to team projects with confidence, troubleshoot common issues, and apply GitLab to organize, automate, and enhance your development process.

Objectives

This course combines engaging instructor-led presentations and useful demonstrations with valuable hands-on labs and engaging group activities. By the end of the GitLab Quick Start course, you will have built practical, job-ready skills to help you work more confidently with Git and GitLab in real development environments.

Here are a few key things you will be able to do:

- **Create and manage Git repositories.** Set up projects and track changes to your code using Git and GitLab.
- **Work with branches and resolve merge conflicts.** Use branching strategies to organize work and handle changes from multiple team members.
- **Clean up and review commit history.** Understand how to review, edit, and simplify commit logs for better collaboration.
- **Configure Git for your daily workflow.** Set up your Git environment, create shortcuts, and manage ignored files.
- **Collaborate using GitLab Flow.** Apply a real-world GitLab workflow, including merge requests, approvals, and issue tracking.
- **Build and troubleshoot GitLab CI/CD pipelines.** Create simple automation to test and deliver your code more reliably.

If your team requires different topics, additional skills or a custom approach, our team will collaborate with you to adjust the course to focus on your specific learning objectives and goals.

Audience

The introductory-level course is designed for anyone who works with software projects and wants to better understand version control and team collaboration using Git and GitLab. It is a great choice for developers, QA engineers, DevOps professionals, and technical team leads looking to strengthen their workflow and project organization. Whether you are brand new to Git or have some experience and want to build better habits, this course will help you work more smoothly with your team.

Pre-Requisites

To get the most out of this GitLab Quick Start course, it helps to have a few basic skills. No prior Git or GitLab experience is needed, but some general tech comfort will make things easier:

- **Basic Command Line Use:** Know how to open a terminal and run simple commands.
- **Familiarity with Software Projects:** Understand how code is organized and versioned in a team setting.
- **Using Web-Based Tools:** Be comfortable navigating online platforms and user interfaces.

Agenda

Please note that this list of topics is based on our standard course offering, evolved from typical industry uses and trends. We'll work with you to tune this course and level of coverage to target the skills you need most. Topics, agenda and labs are subject to change, and may adjust during live delivery based on audience skill level, interests and participation.

1. Git and GitLab Introduction and Basics

- Understanding version control and Git essentials
- Exploring GitLab as a collaboration platform
- Installing and configuring Git on your system
- Working with repositories and tracking changes
- Making your first commit and navigating GitLab UI

2. GitLab Flow

- Overview of GitFlow vs. GitLab Flow
- Selecting the right workflow for your team
- Managing environments: staging, production, and feature branches

- Using issues and merge requests in GitLab
- Implementing protected branches and approvals

3. Branching

- Creating and switching branches
- Naming conventions and organizational tips
- Visualizing branch structures
- Tagging versions and releases
- Cleaning up and deleting merged branches

4. Configuring Git

- Setting up global and local configuration
- Understanding .gitconfig settings
- Creating aliases to simplify commands
- Managing ignored files with .gitignore
- Using Git credentials and SSH keys securely

5. Rebasing

- Introduction to rebasing vs. merging
- Rebasing local branches
- Handling conflicts during rebases
- Interactive rebasing and squashing commits
- Best practices and troubleshooting tips

6. Merging

- Merging strategies and fast-forward vs. no-fast-forward
- Performing merges in GitLab
- Understanding merge commits
- Handling merge requests and code reviews
- Tools for visualizing merge conflicts

7. Resolving Merge Conflicts

- Identifying the cause of merge conflicts
- Using Git commands to resolve conflicts
- Tools and editors to assist with conflict resolution
- Best practices for preventing common conflicts
- Committing and testing after resolving conflicts

8. Remote Repositories

- Connecting to remote repositories
- Cloning and pushing projects
- Pulling and fetching updates
- Setting up upstream and tracking branches
- Collaborating with remotes and forks

9. Reviewing the Commit History

- Exploring git log, git show, and git diff
- Using shortcuts to navigate revisions
- Blame and annotate features for tracking changes
- Reverting and amending commits
- Cleaning up history with rebase and squash

10. Improving Your Daily Workflow

- Saving work-in-progress with git stash
- Interactive staging and reviewing diffs
- Automating common tasks with aliases
- Managing build artifacts in the workflow
- Creating readable and meaningful commit messages

11. Continuous Integration / Continuous Delivery (CI/CD)

- Introduction to GitLab CI/CD and pipelines
- Installing and configuring GitLab Runner
- Understanding .gitlab-ci.yml syntax and structure
- Creating and customizing your first CI/CD pipeline
- Visualizing, debugging, and optimizing pipelines

Follow On Courses

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| TTDV7551 | Introduction to GitHub for Developers |
| TTDV7559 | Working with GitLab and Terraform |
| TTDV7558 | Introduction to Git, GitHub and TortoiseGit for Developers |

Related Courses

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| TTDV7559 | Working with GitLab and Terraform |
| TTDV7553 | Introduction to GitLab |
| TTDV7551 | Introduction to GitHub for Developers |

TTDV7558

Introduction to Git, GitHub and TortoiseGit for Developers

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Ways to Learn: At Trivera, we believe that Experience is Everything. Our customizable, hands-on courses are delivered live online, onsite, or in a blended format for maximum flexibility. We provide real-time expert-led training and coaching for all skill levels, from small groups to enterprise-wide programs, ensuring every learner gains the latest, most relevant job-ready skills they can apply with confidence. This course is also available for individuals or small groups on our extensive Public Schedule (see current dates below). We look forward to helping you take the next steps in your modern web developer learning journey.

For More Information

Please [contact us](#) or call 844-475-4559 toll free for more information about our training services (instructor-led, self-paced or blended), coaching and mentoring services, public course enrollment or questions, partner programs, courseware licensing options and more.