Git Fundamentals Course Syllabus

DevOpsGroup Academy 2018


Proc
Tools

Git Fundamentals

As the single most commonly used Version Control software in the industry today, Git has taken the IT sector by storm – and with good reason! Git Fundamentals is a practical training course designed to get engineers and developers used to using Git in anger.

Course delegates will be shown the advantages of using Git as a version control tool and taught how to make the most of the features Git has to offer by following good working practices. Real world examples and the completion of tailored, practical exercises help to engrain this knowledge and build confidence in Git as an engineering & development tool.

Learning Objectives

At the end of this course you will be able to:

- Understand the differences between Git, Github and Gitlab
- Install and configure Git for use
- Use Git to manage files using CLI commands
- Create, Clone and manage repositories
- Reviewing audit trails
- Perform Branching, Merging and Rebasing
- Prevent and resolve merge conflicts
- Understand common Git workflows
- Perform basic troubleshooting of Git

Syllabus Breakdown

1. What is Git and Gitlab?

- 1.1 History of Git
- 1.2 Design Principles
- 1.3 Distributed Version Control

2. Installing Git

- 2.1 Account Setup
- 2.2 Installing Sourcetree Git GUI

3. Git File Management

- 3.1 Common Git Commands
- 3.2 Configuring Git
- 3.3 Creating Repositories
- 3.4 Creating a Commit

4. Branching

- 4.1 Visualising Branches
- 4.2 Branch Naming Conventions
- 4.3 Creating a new Branch
- 4.4 Handling Merge Conflicts

5. Pull Requests

- 5.1 Creating a Merge Request
- 5.2 Accepting a Merge Request
- 5.3 Rejecting a Merge Request

6. Common Workflows

- 6.1 Centralised Flow
- 6.2 GitHub Flow
- 6.3 Git Flow

7. Advanced Topics

- 7.1 SVN Branching vs Git Branching
- 7.2 Inside a Local Repository
- 7.3 The reflog Time Machine
- 7.4 What is HEAD?
- 7.5 Amending Commits

8. Do and Don't

- 8.1 Checking in Binary Files
- 8.2 Rewriting history
- 8.3 Force Push
- 8.4 Commit Descriptions
- 8.5 Brain Overload

Your Learning Accelerated

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