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# Git Versioning training

2 days (14 hours)

#### Presentation

Thanks to branches, Git's version control system enables developers to program quickly and administrators to efficiently maintain your large-scale applications.

In the age of DevOps, version management offers many advantages for successful digital projects. In fact, this system strengthens collaboration between every member of your teams by tracking the various changes made.

It also enables you to optimize the quality of your developments thanks to a better view of CI/CD pipelines. Thanks to Git, you can easily manage your projects' various workflows.

Our Git Versioning training course will introduce you to installing and using Git, branch management and collaboration to develop your projects.

Our training course will introduce you to the latest version of Git, Git 2.37.

### Objectives

- Install and configure the GIT tool
- The benefits of a version control system
- Understanding and managing branches
- Understanding the principles of a distributed version manager
- Understanding Git's philosophy and benefits

## Target audience

Developers

- Architects
- System administrators
- Engineers
- Project managers

# Prerequisites

Java experience with Eclipse

## Git Versioning training program

#### Introduction

- What is a distributed version manager?
- The benefits of version management
- What is Git?
- Use cases
- The benefits of Git
- · Overview of possible workflows

### Getting started with Git

- Installing Git
- · Configuring the .gitconfig file
- Declaration of a version differential analysis tool
- Creating a first project
- Basic commands
  - · Creating a repository and .git folder
  - Git's 3 states
  - Add and commit
  - Status, log and diff

### The various components

- Repositories and repository cloning
- Index
- Work directory

#### Teamwork with Git

- Connecting to a repository
- Setting up a public or private remote depot
- Handling files and directories
- Managing commits
- Synchronization with a remote repository

- Using tags
- Create and apply patches
- Publication of changes

### Manage branches

- The master branch and temporary branches
- Branch and sub-branch creation
- Navigation between branches
- Merging branches
- Follow-up branches for managing failures

## Companies concerned

This course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

## Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives with regard to the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

### Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

## Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

### Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

### Sanction

A certificate will be issued to each trainee who completes the course.