Git and GitLab

Components for CI/CD

This course will give you a basic understanding of version control systems with the help of the most popular version management tool Git. We will not only look at the Git tool, but also the interface to the GitLab platform. In the course, you will put your own GitLab platform into operation and prepare it for daily use. The aim of the course is to show you the possibilities of Git and to introduce you to the installation and operation of a platform such as GitLab. The theoretical knowledge imparted is immediately put into practice in the exercises. The course is rounded off with an outlook into the world of CI/CD & DevOps as well as alternative tools and their positioning.

Course Contents

- Introduction to Git
- Git concepts
- Using Git on Windows and Linux
- Local and remote repositories
- Operation of Git environments
- Introduction to GitLab
- Comparison between GitLab, BitBucket, GitHub
- Installation & operation of GitLab
- Bug & issue tracking
- GitLab workflows and runners
- Outlook CI/CD & DevOps

E-Book The detailed digital documentation package, consisting of an e-book and PDF, is included in the price of the course.

Target Group

This training is aimed at application developers, designers, operations teams and platform architects who want to get a quick and easy introduction to version management with Git and GitLab.

Prerequisites

The willingness to deal technically with the topics of Git and GitLab is a prerequisite. Basic IT knowledge is required.

Course Target

You will gain an understanding of version control with Git and collaboration with GitLab. You will master the management of local and remote repositories, as well as basic workflows. You will classify basic CI/CD and DevOps concepts.

This Course in the Web

You can find the up-to-date information and options for ordering under the following link:
www.experteach-training.com/go/**GITA**

Reservation

On our Website, you can reserve a course seat for 7 days free of charge and in an non-committal manner. This can also be done by phone under +49 6074/4868-0.

Guaranteed Course Dates

To ensure reliable planning, we are continuously offering a wide range of guaranteed course dates.

Your Tailor-Made Course!

We can precisely customize this course to your project and the corresponding requirements.

Training		Prices, excl. of V.A.T.
Classes in Germany	**2 Days**	**€ 1,595**
Classes in Austria	**2 Days**	**€ 1,595**
Classes in Switzerland	**2 Days**	**€ 1,990**
Online Training	**2 Days**	**€ 1,595**

Date/course venue — Course language German

30/03-31/03/26	HY Düsseldorf	24/08-25/08/26	HY Online
30/03-31/03/26	HY Online	21/09-22/09/26	HY Düsseldorf
27/04-28/04/26	HY Online	21/09-22/09/26	HY Online
27/04-28/04/26	HY Wien	27/10-28/10/26	HY Online
26/05-27/05/26	ON Online	27/10-28/10/26	HY Wien
26/05-27/05/26	Zürich	17/11-18/11/26	ON Online
23/06-24/06/26	HY Hamburg	17/11-18/11/26	HY Online
23/06-24/06/26	HY Online	17/11-18/11/26	HY Zürich
27/07-28/07/26	HY München	15/12-16/12/26	HY Hamburg
27/07-28/07/26	HY Online	15/12-16/12/26	HY Online
24/08-25/08/26	HY Frankfurt		

Status 03/08/2026

Git and GitLab

Table of Contents

Git and GitLab – Components for CI/CD

1 Git Overview
1.1 Version Control
1.2 Presentation of Git
1.2.1 How does Git work?
1.2.2 Components of a Commit
1.2.3 Commit Message
1.2.4 Spreading of Git
1.2.5 Alternatives to Git and Differentiation
1.3 Installation under Linux
1.4 Installation under Windows
1.5 Architecture of Git
1.5.1 Git States
1.6 Working with Git
1.6.1 First Steps with Git
1.6.2 Basic Commands
1.6.3 Git-Ignore File
1.6.4 Working with the History
1.6.5 Working with Tags
1.6.6 Check out Commits/Tags
1.6.7 Discarding Modifications
1.6.8 Reference History

2 Git Branches
2.1 What is a branch?
2.1.1 GitFlow Concept
2.2 Working with Branches
2.2.1 Switching between Branches
2.2.2 Deletion of Branches
2.3 Merging
2.3.1 3-Way Merge
2.3.2 Squashing during Merge
2.4 Rebase
2.5 Cherry-Pick
2.6 Local Conflicts
2.6.1 Switching between Branches
2.6.2 Conflicts during Merge

3 GitLab
3.1 Remote Repositories
3.2 GitLab and Alternatives
3.2.1 Community Edition
3.2.2 GitHub
3.2.3 BitBucket
3.2.4 Differences between the Remote Platforms
3.3 Administration of GitLab
3.3.1 Setting up a Local GitLab Server
3.3.2 GitLab Landing Page
3.4 Role Model under GitLab
3.5 Authentication
3.5.1 Access Tokens
3.5.2 SSH Keys

4 Git Remote
4.1 Linking a Remote Repository
4.2 Working with Remote Repositories
4.3 Local and Remote Branches
4.4 Git Clone
4.5 Git Fetch
4.6 Git Pull
4.7 Git Push
4.7.1 Conflicts during the Push

5 Working with GitLab
5.1 Merge Requests
5.1.1 Creating a Merge Request
5.2 Issue Tracking
5.2.1 Planning with Issues
5.3 Wiki
5.4 Forking
5.5 Activities in GitLab

6 Preview DevOps and CI/CD with Git
6.1 GitLab for DevOps
6.2 Continuous Integration
6.3 CI with GitLab

A Visual Studio Code
A.1 What is Visual Studio Code?
A.2 GitLab and VSC
A.3 The User Interface of VS Code
A.3.1 Activity Bar and Side Bar
A.3.2 Create New Files in VS Code
A.3.3 Add a Folder
A.3.4 The Search Tool
A.4 Version Control
A.4.1 Use GIT in Visual Studio Code
A.4.2 Clone a Remote Repository in VS Code
A.4.3 Create a Local Git Repository
A.4.4 GitLens

B List of Abbreviations

C List of Commands

ExperTeach Benelux B.V.
Ceresstraat 1· 4811 CA Breda· Phone: +49 6074 4868-0 · Fax: +49 6074 4868-109 · info@experteach.de · www.experteach-training.com