Course : GitLab CI/CD, mastering the management of your software development lifecycle

from continuous integration to continuous deployment
Practical course - 3d - 21h00 - Ref. GLN
Price : 2010 € E.T.

★★★★½ 4,3 / 5

BEST

GitLab is not just a release manager, it's also a competitive solution for DevOps engineering. This hands-on course will teach you how to use this tool to improve project collaboration and automate a complete development cycle (builds, tests, deployments...).

🎯 Teaching objectives

At the end of the training, the participant will be able to:

- ✓ Learn more about GitLab
- ✓ Practice versioning with Git and collaborate with GitLab
- ✓ Implement continuous integration (CI) and continuous deployment (CD) with GitLab
- ✓ Understand the building blocks of a DevOps software factory

Intended audience

Developers, project managers, system administrators, architects.

Prerequisites

Basic knowledge of Linux commands. Basic knowledge of version management with Git.

Practical details

Hands-on work
Theoretical presentations alternate with practical applications.

Course schedule

PARTICIPANTS
Developers, project managers, system administrators, architects.

PREREQUISITES
Basic knowledge of Linux commands. Basic knowledge of version management with Git.

TRAINER QUALIFICATIONS
The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

ASSESSMENT TERMS
The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more.
Participants also complete a placement test before and after the course to measure the skills they've developed.

1 The GitLab offer

- GitLab CE (Community edition). GitLab EE (Enterprise edition).
- The different types of GitLab use: gitlab.com, on premise, on cloud (AWS, GCP).
- Registration procedure on gitlab.com.

Hands-on work
Create a GitLab account on gitlab.com. Navigate the interface.

2 Git and its use with GitLab

- Git concepts: blob, tree, commit, revision, branch, tag…
- Local file management. View and modify work history.
- Branch management. Branch mergers and conflict management.

Hands-on work
Setting up a remote repository and simulating collaborative work.

3 Repository management with GitLab

- Managing project collaborators and their rights.
- The exit system and the link with commits.
- Introducing the wiki and snippets.

Hands-on work
Setting rights and creating merge requests.

4 GitLab CI/CD

- Introducing GitLab CI/CD and GitLab runners.
- Introducing Docker.
- The gitlab-ci.yml manifest file, an introduction to the YAML language.
- Essential tags for describing steps, jobs and processes (courses, images, scripts, etc.).
- Pipeline execution monitoring. Automatic, manual and scheduled jobs.
- Artifacts and performance improvement with cache.
- The official documentation on manifest file syntax.
- Environment management.

Hands-on work
Simple examples of job creation and chaining.

5 Going further with GitLab

- Runner types (shared runner, specific runner and group runner).
- Shared runners available on gitlab.com managed by the GitLab team.
- Scalability of runners with Docker Machine.
- The Docker executor and available images: MySQL, PostgreSQL, Redis, MongoDB, Ruby…
- Integration tests, functional tests, scalability tests.
- Deployment in the cloud.
- The Kubernetes executor and job distribution in a Kubernetes cluster.
- Integration of the Prometheus monitoring tool.

Hands-on work
Set up a specific runner. Execute job sequences on different runners.

6 Additional GitLab features

- Shared runners for Windows.
- Infrastructure as code with Terraform.
- Auto DevOps.
- Dynamic safety tests (DAST).

Dates and locations

REMOTE CLASS
2026 : 4 May, 1 June, 29 June, 3 Aug., 7 Sep.,
5 Oct., 18 Nov., 16 Dec.

PARIS LA DÉFENSE
2026 : 4 May, 1 June, 29 June, 3 Aug., 7 Sep.,
5 Oct., 18 Nov., 16 Dec.

LUXEMBOURG
2026 : 7 Sep., 18 Nov.