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Sign Up

GitLab CI/CD Associate Training

2 days (14 hours)

Overview

GitLab enables you to build automated software delivery pipelines, from source code to deployment. The official CI/CD Associate certification validates your understanding of continuous integration, pipeline components, and GitLab CI/CD features to ensure reliable application deliveries.

Our Certified CI/CD Associate Certification Training will help you prepare for the exam by reinforcing the knowledge and skills needed to design structured, readable CI/CD pipelines tailored to your projects' needs.

You'll learn how to organize jobs and stages, configure runners, manage variables, and leverage artifacts and the cache to automate the building and testing of your applications.

Upon completion of the course, you will be able to control triggers, prepare deployments, protect sensitive information, and diagnose pipeline failures based on its configuration and logs.

This preparation combines progressive hands-on workshops, practice questions, and a targeted review of the skills you've mastered. A final assessment will help you identify areas for improvement before taking the exam included in the course.

Like all our courses, this one will introduce you to **the latest stable version** of the technology and its new features.

Objectives

- Explain the principles of continuous integration and continuous delivery in GitLab CI/CD

- Build a build and test pipeline using jobs and stages
- Configure triggers, variables, artifacts, and the cache for a pipeline
- Organize deployments and apply best practices for protecting secrets
- Diagnose common errors and prepare for the Certified CI/CD Associate exam

Target Audience

- DevOps Engineer
- Software developer
- Continuous Integration Engineer
- GitLab Administrator
- Automation QA Engineer

Prerequisites

- Familiarity with basic Git commands and branch management
- Initial experience with projects and merge requests in GitLab
- Knowledge of the steps involved in building, testing, and deploying an application
- Ability to read a YAML file and simple Shell commands

Technical Prerequisites

- Computer with 8 GB of RAM recommended, running Windows 11, macOS, or Linux
- An up-to-date Firefox or Chrome browser and a stable internet connection allowing access to the learning platform and necessary repositories
- Git 2.x and an editor such as Visual Studio Code must be installed
- GitLab account with permissions to create projects and access to a working training runner
- GitLab University account for registration and access to the certification track

Curriculum for our GitLab Certified CI/CD Associate training

[Day 1 - Morning]

CI/CD Fundamentals and First Pipelines

- Overview of the GitLab Certified CI/CD Associate Certification Training and Skills to Review for the Exam
- Principles of Continuous Integration, Continuous Delivery, and Continuous Deployment
- GitLab CI/CD Architecture: Projects, Pipelines, Jobs, Stages, and Runners
- Structure of the .gitlab-ci.yml file: script, image, services, and default settings
- Reading the execution graph, statuses, and job logs
- Hands-on Workshop: Create a build and test pipeline, then verify its execution after a commit.

[Day 1 - Afternoon]

Job Execution, Variables, and Results

- Selecting runners: scope, tags, and runner principles
- Using predefined and custom variables in scripts
- Protecting sensitive data with masked and protected variables; limitations of masking
- Distinction between artifacts and cache: result delivery, keys, and expiration
- Publishing test reports and managing failures with `allow_failure` and `retry`
- Hands-on workshop: Enhancing the pipeline with variables, test reports, artifacts, and a cache, then comparing two runs.

[Day 2 - Morning]

Triggers and application delivery

- Controlling pipeline creation with `workflow:rules` and selecting jobs with `rules`
- Running on branches, tags, and merge requests; preventing duplicate pipelines
- Organizing dependencies between jobs using `needs` and retrieving required artifacts
- Reusing configurations with `include`, `extends`, and CI/CD components
- Managing environments, manual jobs, and promotion to production
- Hands-on workshop: Triggering tests on a merge request and configuring a deployment to a staging environment with manual validation.

[Day 2 - Afternoon]

Diagnosis and preparation for certification

- Validating the configuration with CI Lint and analyzing syntax or dependency errors
- Diagnosing pending jobs, script errors, and issues with variables or artifacts
- Review of certification skills: components, configuration, and use of CI/CD functions
- Original practice questions: reading configurations and justifying answers
- Assessment of learning outcomes, individual review plan, and preparation for exam instructions
- Hands-on workshop: fixing a faulty pipeline, demonstrating its operation, and conducting a mock exam with annotated feedback.

Relevant companies

This training program is designed for both individuals and businesses—large and small—that wish to train their teams in new, advanced IT technologies or to acquire specific industry knowledge or modern methods.

Placement Assessment at the Start of Training

The pre-training assessment complies with Qualiopi quality standards. Upon final registration, the learner receives a self-assessment questionnaire that allows us to evaluate their estimated proficiency in various types of technologies, as well as their expectations and personal goals for the upcoming training, within the limits imposed by the selected format. This questionnaire also allows us to anticipate certain connection or internal security issues within the company (intra-company or virtual classroom) that could pose challenges for monitoring and ensuring the smooth running of the training session.

Teaching Methods

Hands-On Training: 60% Practical, 40% Theoretical. Training materials distributed in digital format to all participants.

Organization

The course alternates between theoretical input from the instructor—supported by examples and reflection sessions—and group work.

Assessment

At the end of the session, a multiple-choice quiz is administered to verify that participants have successfully acquired the skills.

Certification

A certificate will be issued to each trainee who has completed the entire training program.

Training organization registered under number 11 75 54743 75. This registration does not constitute state accreditation.
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