

GitHub fundamentals - Administration basics and product features (GH-100T00)

Duration: 1 day

Audience: Professionnel TI

Who is this training for?

This course is intended for students who want to understand and GitHub best practices. You will understand the fundamental features of GitHub, learn about repository management, gain an understanding of the GitHub flow, including branches, commits, and pull requests. Additionally, you will explore the collaborative features of GitHub by reviewing issues and discussions and be able to manage your GitHub notifications and subscriptions.

Training objectives

By

the end of this course, students will be able to:

- Identify and escalate issues appropriately by creating and sharing support bundles with GitHub Support for faster resolution.
- Leverage Enterprise Teams and Enterprise Apps to improve collaboration, management, and governance within GitHub Enterprise.
- Design secure and scalable developer workflows using best practices for branching strategies, code reviews, automation, and release management.
- Implement CI/CD pipelines to streamline the software delivery lifecycle with consistent build, test, and deployment processes.
- Configure, secure, scale, and monitor runners (GitHub-hosted and self-hosted) to keep builds fast, available, and compliant.
- Safeguard credentials by scoping, rotating, and auditing encrypted secrets and integrating external vaults for centralized management.
- Extend and automate GitHub using rate-efficient API scripts, Marketplace Apps, and custom Actions to connect third-party tools and streamline administration.

Summary

In this course, you'll learn the basics of GitHub and gain a better understanding of its core features through a hands-on exercise directly in a GitHub repository. You'll learn the best practices for creating, hosting, and maintaining a secure repository on GitHub.

Course outline

Learning Path 1: GitHub fundamentals - Administration basics and product features

- Module 1: Introduction to GitHub
- Module 2: Introduction to Git repositories
- Module 3: Manage repository changes by using commits
- Module 4: Collaborate on GitHub by using pull requests

Learning Path 2: GitHub fundamentals - Administration basics and product features

- Module 5: Search and organize repository history by using GitHub
- Module 6: Manage GitHub repository administration
- Module 7: Communicate effectively on GitHub by using issues and discussions
- Module 8: Manage your work with GitHub Projects
- Module 9: Manage notifications and subscriptions on GitHub

Approach and methodology

Practical and structured approach combining focused theory and guided hands-on exercises. Participants progressively explore GitHub fundamentals through practical activities performed within repositories, reinforcing key concepts such as version control, collaboration, repository management, and administrative features. They learn how to manage code changes, work with branches and pull requests, organize projects, and collaborate effectively using GitHub's core tools. Led by a Microsoft Certified Trainer (MCT), the training emphasizes interactivity and the development of practical skills that can be immediately applied to managing and collaborating on software projects in a professional environment.

Prerequisites

Students

should have the following knowledge and experience before attending this course:

- A basic understanding of software development concepts and experience using at least one programming or scripting language.
- Familiarity with GitHub, including version control workflows (e.g., branching, pull requests) and working within repositories.

- General knowledge of enterprise environments or development at scale, including CI/CD practices, access controls, and automation tools.
- Experience with integrated development environments (IDEs) and a working knowledge of collaborative development tools or platforms.

Recommendations

- Knowledge of authentication and access management concepts (asset)
- General experience in development, DevOps or IT administration
- Basic familiarity with GitHub flows (branches, commits, pull requests)