

training code: GH-100 / ENG DL 1d / EN

GitHub fundamentals - Administration basics and product features



The training covers essential tools, workflows, and support strategies for efficient collaboration, automation, and governance within GitHub Enterprise environments.

Through a practical approach, participants will gain comprehensive knowledge of running GitHub Enterprise at scale - from initial setup to advanced workflow automation and security hardening. The training is authorized by Microsoft.



Training recipients

- DevOps Engineers looking to streamline support escalation, automate administrative tasks with GitHub APIs, and optimize CI/CD pipelines across enterprise environments
- Developers seeking to build secure, consistent workflows, extend GitHub's capabilities with Marketplace integrations, and enhance team productivity
- Solution Architects interested in scaling collaboration through Enterprise Teams and Apps, improving governance, and designing resilient, automated development infrastructures



Benefits

- Enterprise-level GitHub management - You'll learn to effectively manage GitHub Enterprise environments at scale
- Security and compliance mastery - You'll gain skills in implementing secure workflows, managing permissions, and ensuring compliance across the enterprise
- Automation expertise - You'll master CI/CD pipeline creation and workflow automation using GitHub Actions
- Support readiness - You'll learn to build support bundles, triage incidents, and make informed

escalation decisions

- Integration capabilities - You'll understand how to extend GitHub functionality through APIs, Marketplace Apps, and custom Actions



Training program

1. Introduction to GitHub
 - Introduction
 - What is GitHub?
 - Components of the GitHub flow
 - GitHub is a collaborative platform
 - GitHub platform management
 - Exercise - A guided tour of GitHub
2. Introduction to GitHub administration
 - Introduction
 - What is GitHub administration?
 - How does GitHub authentication work?
 - How does GitHub organization and permissions work?
 - Managing enterprise access, permissions, and governance
3. Introduction to GitHub's products
 - Introduction
 - GitHub accounts and plans
 - GitHub Mobile and GitHub Desktop
 - GitHub billing
 - License Usage Stats
 - Metered Usage Reports
4. Maintain a secure repository by using GitHub best practices
 - Introduction
 - How to maintain a secure GitHub repository
 - Automated security
 - Exercise - Add a .gitignore file
5. Manage sensitive data and security policies within GitHub
 - Introduction
 - Setting security policies
 - Create and manage repository rulesets
 - Reporting and logging
 - Exercise - Remove commit history
6. Authenticate and authorize user identities on GitHub
 - Introduction

- User identity and access management
- User authentication
- User authorization
- Team synchronization

7. GitHub administration for enterprise support and adoption

- Introduction
- GitHub Enterprise features
- Support for GitHub Enterprise
- Scale your enterprise deployment
- GitHub Enterprise Managed Users

8. Manage GitHub Actions in the enterprise

- Introduction
- Understanding GitHub Enterprise models
- Manage actions and workflows
- Control access and usage of actions
- Managing reusable components
- Manage runners
- Configure self-hosted runners
- Manage encrypted secrets
- Exercise - Use repository secrets in workflows

9. Leverage GitHub Actions to publish to GitHub Packages

- Introduction
- What is GitHub Packages?
- Publish to GitHub Packages and Container Registry
- Exercise - Publish to GitHub Packages registry
- GitHub Packages for code packages



Expected preparation of the participant

- Basic understanding of software development concepts and experience with at least one programming/scripting language
- Familiarity with GitHub, including version control workflows (branching, pull requests)
- General knowledge of enterprise environments and development at scale
- Experience with IDEs and collaborative development tools
- Working knowledge of CI/CD practices



Training Includes

- manual in electronic form available on the platform: <https://learn.microsoft.com/pl-pl/training/>
- access to Altkom Akademia's student portal

Training method:

- Lecture (90%)
- Interactive Knowledge Checks (10%)



Language

- Training: English
- Materials: English

Examination method

On-line exam. Record at <https://home.pearsonvue.com/Clients/Microsoft.aspx>

Duration

1 days / 8 hours

Examination description

GitHub Administration

Exam

URL:<https://learn.microsoft.com/en-us/credentials/certifications/github-administration/?practice-assessment-type=certification>