training code: GH-900 / ENG DL 2d / EN

GitHub Foundations

The training provides a comprehensive introduction to Git and GitHub, designed for teams and individuals who want to learn about version control, including software developers, documentation writers, and collaborators on various projects. It covers fundamental features of GitHub, repository management, GitHub flow, and collaborative tools. The course is an excellent preparation for the GitHub Foundations certification exam, which validates understanding of foundational topics and concepts of collaborating, contributing, and working on GitHub.

Training recipients

- Software developers who want to learn about version control, Git, and GitHub
- Documentation writers who collaborate on various projects and need to manage changes effectively
- Teams that work on collaborative projects and need to track changes, manage project history, and facilitate collaboration
- Individuals who are new to Git and GitHub and want to gain a solid understanding of their fundamental features and collaborative tools

Benefits

- Version Control Mastery – You'll understand distributed version control systems and learn essential Git commands for effective code management
- Collaborative Development Skills – You'll learn to use GitHub's collaborative features like pull requests, issues and discussions to work effectively in teams
- GitHub Flow Proficiency – You'll master the GitHub workflow for managing repositories, branches and project collaboration
- AI-Powered Development – You'll learn to leverage GitHub Copilot for enhanced productivity and code quality through AI-assisted programming

- Cloud Development Environment – You'll gain hands-on experience with GitHub Codespaces for simplified development environment setup and management
- Security Best Practices – You'll learn to maintain secure repositories using GitHub's security features and best practices
- Project Management Capabilities – You'll understand how to use GitHub Projects for organizing and tracking work effectively

Training program

1. Introduction to Git
   - Introduction
   - What is version control?
   - Exercise – Try out Git
   - Basic Git commands
2. 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
3. Introduction to GitHub's products
   - Introduction
   - GitHub accounts and plans
   - GitHub Mobile and GitHub Desktop
   - GitHub billing
4. Configure code scanning on GitHub
   - Introduction
   - What is code scanning?
   - Enable code scanning with third party tools
   - Configure code scanning
   - Configure code scanning exercise
5. Introduction to GitHub Copilot
   - Introduction
   - GitHub Copilot, your AI pair programmer
   - Interact with Copilot
   - Set up, configure, and troubleshoot GitHub Copilot
   - Exercise – Develop with AI-powered code suggestions by using GitHub Copilot and VS Code
6. Code with GitHub Codespaces

- Introduction
- The Codespace lifecycle
- Personalize your Codespace
- Codespaces versus GitHub.dev editor
- Exercise – Code with Codespaces and Visual Studio Code

7. Manage your work with GitHub Projects
   - Introduction
   - Projects versus Projects Classic
   - How to create a project
   - How to organize your project
   - How to organize and automate your project
   - Insight and automation with projects
8. Communicate effectively on GitHub using Markdown
   - Introduction
   - What is Markdown?
   - Exercise – Communicate using Markdown
9. Contribute to an open-source project on GitHub
   - Introduction
   - Identify where you can help
   - Contribute to an open-source repository
   - Exercise – Create your first pull request
   - Next steps
10. Manage an InnerSource program by using GitHub
    - Introduction
    - How to manage a successful InnerSource program
    - Exercise – InnerSource fundamentals
11. Maintain a secure repository by using GitHub best practices
    - Introduction
    - How to maintain a secure GitHub repository
    - Automated security
    - Exercise – Secure your repository’s supply chain
12. Introduction to GitHub administration
    - Introduction
    - What is GitHub administration?
    - How does GitHub authentication work?
    - How does GitHub organization and permissions work?
13. Authenticate and authorize user identities on GitHub
    - Introduction
    - User identity and access management
    - User authentication
    - User authorization

- Team synchronization

14. Manage repository changes by using pull requests on GitHub
    - Introduction
    - What are pull requests?
    - Exercise – Reviewing pull requests
15. Search and organize repository history by using GitHub
    - Introduction
    - How to search and organize repository history by using GitHub
    - Exercise – Connect the dots in a GitHub repository
16. Using GitHub Copilot with Python
    - Introduction
    - What is GitHub Copilot?
    - Exercise – Set up GitHub Copilot to work with Visual Studio Code
    - Use GitHub Copilot with Python
    - Exercise – Update a Python web API with GitHub Copilot

Expected preparation of the participant

- Basic understanding of software development concepts and practices
- Familiarity with command-line interfaces and basic commands
- Experience with version control systems (not necessarily Git)
- Experience of working with Microsoft Azure services

To increase the comfort of work and training’s effectiveness we suggest using an additional monitor. The lack of additional monitor does not exclude participation in the training, however, it significantly influences the comfort of work during classes.
You can find information and requirements of participation in Distance Learning trainings at: https://www.altkomakademia.pl/en/how-it-works/about-courses/

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 (70%)
- Exercises (30%)

Language

- Training: English
- Materials: English

Examination method

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

Duration

2 days / 14 hours

Examination description

GitHub Foundations
Exam
URL:https://learn.microsoft.com/en-us/credentials/certifications/github-foundations/?practice-assessment-type=certification