

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

## Description

### Understanding GitHub and Its Core Features

The course “*GitHub Fundamentals – Basics of Administration and Product Features (GH-100)*” is designed for anyone who wants to better understand and manage the GitHub platform. Whether you’re a DevOps engineer, administrator, or curious developer, this training introduces you to GitHub’s key features through hands-on practice with a real repository. The goal is simple: learn how to create, secure, and efficiently manage your GitHub repositories.

### Mastering GitHub Administration and Products

With a structured and progressive approach, you will explore the basics of the GitHub flow, the roles of branches, commits, and pull requests. You’ll also learn how to manage notifications, follow discussions, and collaborate securely in a professional environment. This course also guides you through GitHub administration, permission management, and essential security practices for any organization.

## Course Content

### Module 1: Introduction to GitHub

- What is GitHub?
- Components of the GitHub Flow
- GitHub as a collaborative platform
- Managing the GitHub platform

### Module 2: Overview of GitHub Administration

- What is GitHub Administration?
- How GitHub authentication works
- Organizations and permissions on GitHub
- Managing access, permissions, and enterprise governance

### Module 3: Introduction to GitHub Products

- GitHub accounts and plans
- GitHub Mobile and GitHub Desktop
- GitHub billing

### Module 4: Managing a Secure Repository Using GitHub Best Practices

- How to manage a secure GitHub repository
- Automated security
- Securing your repository’s supply chain

### Module 5: Managing Sensitive Data and Security Policies in GitHub

- Defining security policies
- Creating and managing repository rule sets
- Reporting and logging

## **Module 6: Authenticating and Authorizing User Identities on GitHub**

- Managing user identities and access
- User authentication
- User authorization
- Team synchronization

## **Module 7: GitHub Administration for Enterprise Support and Adoption**

- GitHub Enterprise features
- Support for GitHub Enterprise
- Scaling your enterprise deployment
- GitHub Enterprise managed users

## **Module 8: Managing GitHub Actions in the Enterprise**

- Overview of GitHub enterprise models
- Managing actions and workflows
- Controlling access and usage of actions
- Managing and using reusable components
- Managing runners
- Configuring self-hosted runners
- Managing encrypted secrets
- Using a repository secret in a GitHub Actions workflow

## **Module 9: Leveraging GitHub Actions to Publish on GitHub Packages**

- What are GitHub Packages?
- Publishing to GitHub Packages and GitHub Container Registry
- Publishing to a GitHub package registry
- GitHub Packages for code packages

## **Lab / Exercises**

- This course provides you with exclusive access to the official Microsoft lab, enabling you to practice your skills in a professional environment.

## **Documentation**

- Access to Microsoft Learn, Microsoft's online learning platform, offering interactive resources and educational content to deepen your knowledge and develop your technical skills.

## **Exam**

- This course prepares for the **GH-100: GitHub Administration** certification

## **Participant profiles**

- System or network administrator
- DevOps engineer

- Full-stack or back-end developer
- IT manager in charge of GitHub Enterprise

### **Prerequisites**

- Understand the basics of code versioning (Git)
- Be familiar with collaboration principles in software development
- Be comfortable with the web environment and development tools

### **Objectives**

- Understand how GitHub Flow works
- Create and manage a secure GitHub repository
- Configure access and permissions within a GitHub organization
- Manage user identities and authentication
- Master GitHub products and offerings
- Deploy workflows with GitHub Actions
- Publish packages using GitHub Packages
- Apply security and governance strategies in GitHub

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### **Niveau**

Fondamental

### **Classroom Registration Price (CHF)**

900

### **Virtual Classroom Registration Price (CHF)**

850

### **Duration (in Days)**

1

### **Reference**

GH-100