# GitHub Copilot (GH-300)

## Description

### Discover how to use GitHub Copilot effectively

Software development is evolving rapidly with the introduction of artificial intelligence solutions. Among them, GitHub Copilot stands out as an essential tool for developers and technology-driven businesses. Through this comprehensive course, you will learn how to fully leverage GitHub Copilot to enhance your development projects.

In just a few hours, you will be able to use GitHub Copilot effectively across different environments. Whether you are a developer, a data scientist, or a decision-maker, this course will provide you with strong skills to integrate this technology into your daily work. You will discover how to customize Copilot, use its advanced features, and assess its real impact on your productivity.

### Master the integration of artificial intelligence with GitHub Copilot

By choosing this course, you ensure your professional growth in a rapidly expanding field. Using generative AI has become a major asset to optimize your workflows. Learn how to anticipate challenges, make the most of modern tools, and guarantee a responsible approach to AI with GitHub Copilot.

**Course Content**
**Module 1: Responsible AI with GitHub Copilot**

- Mitigating AI-related risks
- Microsoft and GitHub's six principles for responsible AI

**Module 2: Introduction to GitHub Copilot**

- GitHub Copilot, your AI-powered pair programmer
- Interacting with Copilot
- Installing, configuring, and troubleshooting GitHub Copilot
- Developing AI-based code suggestions using GitHub Copilot and VS Code

**Module 3: Introduction to prompt engineering with GitHub Copilot**

- Basics and best practices of prompt engineering
- GitHub Copilot user prompt workflow
- GitHub Copilot data
- GitHub Copilot large language models (LLMs)

**Module 4: Using advanced features of GitHub Copilot**

- Advanced features of GitHub Copilot
- Configuring GitHub Copilot for Visual Studio Code
- Applying GitHub Copilot techniques
- Updating a web API with GitHub Copilot

**Module 5: GitHub Copilot in different environments**

- Code completion with GitHub Copilot
- GitHub Copilot Chat
- GitHub Copilot for the command line

**Module 6: Considerations for customization and management with GitHub Copilot**

- Exploring GitHub Copilot plans and their associated customization and management features
- Understanding GitHub Copilot's contractual protections and public code match disabling
- Managing content exclusions
- Troubleshooting common GitHub Copilot issues

**Module 7: AI use cases for developers with GitHub Copilot**

- Enhancing developer productivity with AI
- Aligning with developer preferences
- AI in the software development life cycle (SDLC)
- Understanding limitations and measuring impact

**Module 8: Developing unit tests using GitHub Copilot tools**

- Reviewing unit testing tools and environment
- Creating unit tests using GitHub Copilot Chat
- Creating unit tests for specific conditions using GitHub Copilot
- Completing the "create unit tests" challenge
- Reviewing the "create unit tests" solution

**Module 9: Introduction to GitHub Copilot Business**

- About GitHub Copilot for Business
- Use cases and customer testimonials for GitHub Copilot for Business
- Getting started with GitHub Copilot for Business

**Module 10: Introduction to GitHub Copilot Enterprise**

- About GitHub Copilot Enterprise
- How to get started with GitHub Copilot Enterprise

**Module 11: Using GitHub Copilot with JavaScript**

- What is GitHub Copilot
- Configuring GitHub Copilot for Visual Studio Code
- Using GitHub Copilot with JavaScript
- Updating a JavaScript portfolio with GitHub Copilot

**Module 12: Using GitHub Copilot with Python**

- What is GitHub Copilot
- Configuring GitHub Copilot for Visual Studio Code
- Using GitHub Copilot with Python
- Updating a Python web API with GitHub Copilot

**Module 13: Developer use cases for AI with GitHub Copilot**

- Enhancing developer productivity with AI
- Aligning with developer preferences
- AI in the software development life cycle (SDLC)
- Understanding limitations and measuring impact

## Module 14: Develop unit tests using GitHub Copilot tools

- Reviewing unit testing tools and environment
- Creating unit tests using GitHub Copilot Chat
- Creating unit tests for specific conditions using GitHub Copilot
- Completing the "create unit tests" challenge
- Reviewing the "create unit tests" solution

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- About GitHub Copilot for Business
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## Module 16: Introduction to GitHub Copilot Enterprise

- About GitHub Copilot Enterprise
- How to get started with GitHub Copilot Enterprise

## Module 17: Using GitHub Copilot with JavaScript

- What is GitHub Copilot
- Configuring GitHub Copilot for Visual Studio Code
- Using GitHub Copilot with JavaScript
- Updating a JavaScript portfolio with GitHub Copilot

## Module 18: Using GitHub Copilot with Python

- What is GitHub Copilot
- Configuring GitHub Copilot for Visual Studio Code
- Using GitHub Copilot with Python
- Updating a Python web API with GitHub Copilot

## 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.

## Participant profiles

- Artificial intelligence developers
- Software engineers
- Data scientists
- Data analysts

- Technical project managers
- IT and innovation managers
- AI regulators and decision-makers

**Prerequisites**

- Understand the basics of how GitHub works
- Have a basic knowledge of software development
- Know the fundamental principles of artificial intelligence

**Objectives**

- Use GitHub Copilot ethically and responsibly
- Configure and use GitHub Copilot effectively
- Master prompt engineering to optimize code suggestions
- Leverage GitHub Copilot's advanced features
- Adapt GitHub Copilot to different development environments
- Manage customization and settings in GitHub Copilot
- Enhance developer productivity with GitHub Copilot's AI capabilities
- Create unit tests assisted by GitHub Copilot

**Description**
GitHub Copilot training
**Niveau**
Intermédiaire
**Classroom Registration Price (CHF)**
900
**Virtual Classroom Registration Price (CHF)**
850
**Duration (in Days)**
1
**Reference**
GH-300