

GitHub Copilot Fundamentals

Course Objective: Participants should know how to use GitHub Copilot, an AI coding assistant, to improve their coding efficiency and quality in various programming languages, focusing on real-world applications and hands-on exercises.

Exam: No

Course Vendor: Microsoft (Unofficial)

Lab/Exercise: Yes

Why Enroll in GitHub Copilot Fundamentals?

- **Master AI-Powered Coding:** Learn how to seamlessly integrate GitHub Copilot into your workflow and let AI assist you with code suggestions, debugging, and more.
- **Boost Productivity:** Discover tips and tricks to enhance your coding speed and efficiency, allowing you to focus on the bigger picture.
- **Stay Ahead of the Curve:** Keep up with the latest in AI and coding technologies, ensuring your skills remain relevant and competitive.
- **Hands-On Learning:** Engage with practical exercises and real-world scenarios to solidify your understanding and application of GitHub Copilot.

What You'll Learn:

- Setting up GitHub Copilot
- Navigating the AI-powered suggestions
- Customizing Copilot to fit your coding style
- Real-world applications and best practices
- Troubleshooting and getting the most out of the tool

Who Should Enroll?

- Software developers of all levels
- Coding enthusiasts looking to enhance their skills
- Tech professionals aiming to stay updated with the latest tools
- Students pursuing careers in tech

Tech Stack To Be Covered



Module 01: Introduction to GitHub Copilot

- Introduction
- Github Copilot, your AI pair programmer
- Set up, configure, and troubleshoot Github Copilot
- Exercise** - Develop with AI powered code suggestions using Github Copilot and VS Code

Module 02: Introduction to prompt engineering with GitHub Copilot

- Prompt engineering foundations and best practices
- Github Copilot user prompt process flow
- Github Copilot Large Language Models (LLMs)

Module 03: Introduction to GitHub Copilot for Business

- About Github Copilot for Business
- Github Copilot for Business use cases and customer stories
- How to get started with Github Copilot for Business

Module 04: Using GitHub Copilot with JavaScript

- Exercise - Set up GitHub Copilot to work with Visual Studio Code
- Use GitHub Copilot with JavaScript
- Exercise** - Update a JavaScript portfolio with GitHub Copilot

Module 05: Using GitHub Copilot with Python

- What is GitHub Copilot
- Use GitHub Copilot with Python
- Exercise** - Update a Python web API with GitHub Copilot

Module 06: Build a minigame project with GitHub Copilot and Python

- Prepare for challenge
- Exercise** - Add the GitHub Copilot extension
- Exercise** - Create the game logic