

Updated 03/15/2024

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# GitHub Copilot training with ChatGPT-4: Al for development

2 days (14 hours)

#### **PRESENTATION**

The Copilot training course will introduce you to a revolutionary new tool for code development. Based on the Artificial Intelligence of GPT-3.5 and 4, Copilot is able to generate natural language code and help you program more efficiently.

In this training course, you'll be able to use the Chatgpt and Github Copilot association to write code and integrated development environments (IDEs). You'll also learn how Copilot can be used to dictate code by voice, answer questions and have conversations about code.

With Copilot, you'll gain in productivity by automating code generation and facilitating collaboration with other developers. You'll become an expert in the use of Artificial Intelligence for code development.

For this course, we'll be using the latest version of Github Copilot, ChatGPT-4.

## **OBJECTIVES**

- · Gain an in-depth understanding of generative AI
- Installing and configuring GitHub Copilot
- Integrate GitHub Copilot into unit testing and documentation processes
- Explore GitHub Copilot's advanced features

## **TARGET AUDIENCE**

Web developers.

# **Prerequisites**

- Web content experience and basic knowledge of Artificial Intelligence
- You need to have the paid version of ChatGPT and make an initial payment (of at least \$5) to the OpenAl API account.

## OUR COPILOT TRAINING PROGRAM WITH GITHUB

# Introduction to generative AI

- What is Generative AI?
- How does Generative AI work?
- The basics of OpenAI, GPT and ChatGPT
- Prompt engineering

### Introduction and overview of GitHub Copilot

- What is GitHub Copilot?
- Overview of GitHub Copilot functions
- GitHub Copilot benefits and features

## Installation and configuration

- Installing and configuring GitHub Copilot in code editors
- Authenticating and linking GitHub accounts
- Explanation of how GitHub Copilot works
- · GitHub Copilot pricing

# Using GitHub Copilot

- Generate code suggestions
- Understanding the context of code for creative programming
- Use GitHub Copilot to explain the code
- · GitHub Copilot practical use case

# Advanced Copilot techniques

- Exploring code completion functionalities
- Working with extracts and templates
- Drafting documentation and comments
- Unit testing with GitHub Copilot

# Best practices and productivity

- Maximize productivity and efficiency with Copilot
- Using the CLI
- Automation of repetitive tasks
- · Understanding limits and risks

### Enhance your experience

- Introducing OpenAI's Chat Completion API
- Coding your intelligent code assistant
- Create a custom template
- Alternatives to GitHub Copilot

# Companies concerned

This course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

# Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

# Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

# Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

### Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

# Sanction

A certificate will be issued to each trainee who completes the course