## Accelerate app development by using GitHub Copilot (AZ-2007)

Tule mukaan uuteen Applied Skills -työpajaan, jossa perehdytään GitHub Copilotin ja GitHub Copilot Chatin käyttöön Visual Studio Code -ympäristössä.

Applied Skills -työpajoissa keskitytään yksilöllisiin oppimistarpeisiin käytännön harjoittelun avulla.

#### **Tavoite**

Opi nopeuttamaan kehitystehtäviäsi GitHub Copilotin ja GitHub Copilot Chatin avulla Visual Studio Code -ympäristössä. Opit myös käyttämään GitHub Copilotia ja GitHub Copilot Chatia monimutkaisen tai tuntemattoman koodin selittämiseen, projektin ja tekstin dokumentoinnin luomiseen, uusien koodiominaisuuksien kehittämiseen kehotteiden ja kommenttien perusteella, yksikkötestien luomiseen ja koodin laadun, luotettavuuden ja suorituskyvyn parantamiseen ja olemassa olevan koodikannan turvallisuus.

#### Kenelle

Koulutus on suunnattu kokeneille kehittäjille, jotka ovat kiinnostuneita hyödyntämään Visual Studio Coden GitHub Copilot -laajennuksia nopeuttaakseen kehitysprosessiaan ja parantaakseen koodiaan.

Osallistujalla on suositeltavaa olla jonkin verran kokemusta C#-sovellusten kehittämisestä Visual Studio Codessa C# Dev Kit -laajennuksella.

#### Koulutuksen sisältö

#### **Get started with GitHub Copilot**

- Explain what GitHub Copilot is and the advantages it provides.
- Install the GitHub Copilot extensions for Visual Studio Code.
- Explain the features of the GitHub Copilot extensions for Visual Studio Code and how to use them.
- Configure the GitHub Copilot extensions for Visual Studio Code.

## Generate documentation using GitHub Copilot tools

- Generate explanations of code blocks, code files, and entire code workspaces using the GitHub Copilot Chat extension for Visual Studio Code.
- Generate code project documentation using the GitHub Copilot Chat extension for Visual Studio Code.
- Generate inline code documentation using the GitHub Copilot Chat extension for Visual Studio Code.

## **Develop code features using GitHub Copilot tools**

- Generate autocompletion suggestions based on code and code comments using the GitHub Copilot extension for Visual Studio Code.
- Manage autocompletion suggestions by accepting, partially accepting, and dismissing suggestions.
- Create chat prompts/questions that communicate your intent by using a combination of chat participants, slash commands, chat variables, and natural language text.
- Create new code using the Chat View, Inline Chat, Quick Chat, and Smart
  Actions features provided by the GitHub Copilot Chat extension for Visual Studio
  Code.
- Manage code update suggestions by accepting, partially accepting, editing, and discarding the suggestions generated by GitHub Copilot Chat.

## **Develop unit tests using GitHub Copilot tools**

- Create unit tests using the GitHub Copilot and GitHub Copilot Chat extensions for Visual Studio Code.
- Create unit tests that target edge cases and specific conditions using the GitHub Copilot and GitHub Copilot Chat extensions for Visual Studio Code.
- Use Visual Studio Code, the .NET SDK, and the C# Dev Kit extension to create a test project and verify that your unit tests build and run successfully.

## Implement code improvements using GitHub Copilot tools

- Develop prompts/questions for GitHub Copilot Chat that help you to improve the code in your existing code projects.
- Implement code update suggestions from GitHub Copilot Chat that improve existing code in the areas of code quality, reliability, performance, and security.

#### Guided project - Accelerate app development using GitHub Copilot tools

- Explain an unfamiliar codebase using GitHub Copilot tools.
- Generate README project documentation using GitHub Copilot tools.
- Develop a new application feature using GitHub Copilot tools.
- Create unit tests using GitHub Copilot tools.
- Implement code quality, reliability, performance, and security improvements using GitHub Copilot tools.

# Avainsanat

Microsoft, AI, GitHub Copilot, GitHub Copilot Chat, Visual Studio Code, Applied Skills