Extend Microsoft 365 Copilot with declarative agents by using Visual Studio Code #MS-4010

Overview

This course provides comprehensive knowledge and hands-on experience in building declarative agents using Visual Studio Code and Teams Toolkit. Participants start with an introduction to declarative agents, followed by practical labs that guide them through building their first agent, understanding API plugins, and implementing APIs. Advanced topics include creating adaptive cards, managing authentication for API plugins, and integrating Microsoft Graph connectors. By the end of the course, participants have a solid understanding of how to leverage declarative agents to enhance the functionality of Microsoft 365 Copilot.

Duration: 1 day (2 x 3 hours)

Course Content

Module 1: Introduction to declarative agents for Microsoft 365 Copilot

Determine the scenarios which declarative agents are suitable for customizing and extending Microsoft 365 Copilot. Describe the function of custom knowledge and custom actions.

Lessons

- Introduction
- What are declarative agents?
- How declarative agents work
- When to use declarative agents
- Module assessment
- Summary

Module 2: Build your first declarative agent using TypeSpec

This module guides you through the process of building, deploying, and optimizing a custom Microsoft 365 Copilot connector. You'll learn how to connect external data sources, implement security, and ensure your data is discoverable and actionable in Copilot

Lessons

- Introduction
- What is TypeSpec?
- Exercise - Scaffold a new declarative agent
- Exercise - Write instructions and conversation starters
- Exercise - Integrate knowledge and actions
- Module assessment
- Summary

Module 3: Introduction to actions with API plugins for declarative agents

Determine the scenarios for which actions for declarative agents with API plugins are suitable. Describe the function of API plugins.

Lessons

- Introduction
- What are API plugins for declarative agents?
- How API plugins work
- When to use API plugins
- Module assessment
- Summary

Module 4: Build your first action for declarative agents with API plugin by using Visual Studio Code

Build a declarative agent for Microsoft 365 Copilot optimized for a specific scenario. Bring actions to your agent with API plugins to access external data in real-time.

Lessons

- Introduction
- Introduction
- Create a declarative agent with an API plugin
- Exercise - Create a declarative agent with an API plugin
- Module assessment
- Summary

Module 5: Use Adaptive Cards to show data in API plugins for declarative agents

Learn how to enhance the user experience of declarative agents by using Adaptive Cards to render API data visually. Create and configure Adaptive Card templates, integrate them into API plugins, and test the setup in Microsoft 365 Copilot. Learn the practical steps for building and previewing Adaptive Cards in Visual Studio Code.

Lessons

- Introduction
- Introduction
- Return rich responses with Adaptive Cards
- Exercise - Return rich responses with Adaptive Cards
- Module assessment
- Summary

Module 6: Authenticate your API plugin for declarative agents with secured APIs

When building apps for work, you typically integrate with secured APIs. Learn about the two common ways of how APIs are secured – API key and OAuth2, and how to integrate with them when building an API plugin for declarative agents that run in Microsoft 365 Copilot.

Lessons

- Introduction
- Integrate an API plugin with an API secured with a key
- Exercise - Integrate an API plugin with an API secured with a key
- Integrate an API plugin with an API secured with OAuth
- Exercise - Integrate an API plugin with an API secured with OAuth
- Module assessment
- Summary

Module 7: Introduction to Copilot connectors

This module introduces Copilot connectors, explains their architecture, and guides you through connecting external data sources securely to Microsoft 365 Copilot.

Lessons

- Introduction
- Integrate an API plugin with an API secured with a key
- Exercise - Integrate an API plugin with an API secured with a key
- Integrate an API plugin with an API secured with OAuth
- Exercise - Integrate an API plugin with an API secured with OAuth
- Module assessment
- Summary

Module 8: Build your first Microsoft 365 Copilot connector using Visual Studio Code

This hands-on module guides you through building a working Microsoft 365 Copilot connector that indexes GitHub issues into Microsoft 365. You'll use the Microsoft 365 Agents Toolkit in VS Code to create, configure, and deploy a connector that makes external data queryable by Copilot.

Lessons

- Introduction
- Exercise - Create your first connector project
- Exercise - Connect to GitHub repository
- Exercise - Run connector and ingest data
- Exercise - Add new property
- Module assessment
- Summary

Module 9: Monitor and maintain Microsoft 365 Copilot connectors

This module teaches you how to manage Microsoft 365 Copilot connectors throughout their operational lifecycle. You'll learn to monitor connector health, troubleshoot issues, manage security permissions, and optimize performance.

Lessons

- Introduction
- Monitor and manage connector operations
- Troubleshoot connector issues and errors
- Manage access permissions and security
- Optimize connector performance
- Knowledge check
- Summary