

Build a Copilot App using Azure AI Studio and Semantic Kernel

Course Duration: 02 Days

Note: To complete the hands-on labs in this course, students require an Azure subscription that has been approved for access to the Azure OpenAI service. [Azure OpenAI: https://learn.microsoft.com/legal/cognitive-services/openai/limited-access](https://learn.microsoft.com/legal/cognitive-services/openai/limited-access)

Pre-requisites:

- Familiarity with Azure portal.
- Experience programming with C# or Python.
- Python basics: <https://learn.microsoft.com/en-us/training/paths/beginner-python/>
- C# basics: <https://learn.microsoft.com/en-us/training/paths/get-started-c-sharp-part-1/>

Module 01: Building NLP solutions using Azure AI Studio

- Azure OpenAI's base model and its deployment
- Lab: Generate text with Azure OpenAI Service (SDK)
- Lab: Generate code with Azure OpenAI Service (SDK)
- Lab: Generate image with Azure OpenAI Service (SDK)

Module 02: Chat Copilot using Azure AI Studio

- Overview of Azure AI Studio
- Workflow for Building Chat Copilot using Azure AI Studio
- Azure OpenAI with Assistants API
- Lab: Build your own Chat Copilot using your own data (Azure AI Studio)
- Lab: Build your own Chat Copilot using your own data (Assistants API)

Module 03: Introduction to Prompt Flow Design

- Prompt flow Overview
- Develop Prompt flows
- Evaluate Prompt flows
- Lab: Prompt flow design using templates (Standard flow, Chat flow & Evaluation flow)

Module 04: Create AI Agents & AI memories using Semantic Kernel

- Initialize the kernel
- Give your agent skills with plugin
- Improve automation with planners
- Understanding embeddings
- Store context in vector databases
- Responsible AI using Semantic Kernel
- The Schillace Law's
- Hands-on/Lab: Create AI Agents using Semantic Kernel

Module 05: Hands-on Implementation using Semantic Kernel SDK

- Lab: Basic Labs on Semantic Functions
- Lab: Adding plugins to Semantic Kernel
- Lab: Adding memories to Semantic Kernel
- Lab: Using connectors in Semantic Kernel
- Lab: Chaining concept in Semantic Kernel

- Lab: Integrating Bing with Azure OpenAI using Semantic Kernel

Module 06: [Demo Project on Semantic Kernel in a box](#)

- Solution Architecture of semantic kernel in a box
- Demo working project on semantic kernel in a box

