training code: AI-3026 / ENG DL 1d / EN

Develop AI agents on Azure

The AI-3026 designed to equip participants with the skills to design, build, deploy, and manage intelligent AI agents using Azure AI Foundry Agent Service and the Semantic Kernel Agent Framework. The course explores when and why to use AI agents, how to integrate custom tools, and how to build multi-agent solutions.

Training recipients

This training is intended for developers, AI engineers, software engineers, and other IT professionals who seek to apply AI agent technology within the Azure environment. Participants should already have basic familiarity with Azure AI services, programming skills in languages such as Python or C#, experience with REST APIs and JSON, and the ability to work with technical materials in English.

Benefits

- By completing this course, participants will be able to:
- identify use cases and situations appropriate for AI agents and understand their core architectures;
- build and deploy AI agents using Azure AI Foundry Agent Service;
- integrate custom tools into agents to enhance their capabilities;
- use Semantic Kernel to develop code-first agents, including plugin development;
- design multi-agent solutions with strategies for agent collaboration, selection, and termination.

Training program

1. Get started with AI agent development on Azure
   - What are AI agents?
   - Options for agent development

- Azure AI Agent Service
- Exercise – Explore AI agent development

2. Develop an AI agent with Azure AI Agent Service
   - What is an AI agent
   - How to use Azure AI Agent Service
   - Develop agents with the Azure AI Agent Service
   - Exercise – Build an AI agent
3. Integrate custom tools into your agent
   - Why use custom tools
   - Options for implementing custom tools
   - How to integrate custom tools
   - Exercise – Build an agent with custom tools
4. Develop an AI agent with Semantic Kernel
   - Understand Semantic Kernel AI agents
   - Create an Azure AI agent with Semantic Kernel
   - Add plugins to Azure AI agent
   - Exercise – Develop an Azure AI agent with the Semantic Kernel SDK
5. Orchestrate a multi-agent solution using Semantic Kernel
   - Understand the Semantic Kernel Agent Framework
   - Create an agent group chat
   - Design an agent selection strategy
   - Define a chat termination strategy
   - Exercise – Develop a multi-agent solution
6. Integrate MCP Tools with Azure AI Agents
7. Discover Azure AI Agents with A2A

Expected preparation of the participant

- To get the most out of this training, learners should have:
- experience with Microsoft Azure platform and ability to navigate the Azure portal;
- programming knowledge in either Python or C#;
- experience working with REST APIs and JSON data;
- ability to use English for technical readings, tutorials, and documentation

To increase the comfort of work and training's effectiveness we suggest using an additional monitor. The lack of additional monitor does not exclude participation in the training, however, it significantly influences the comfort of work during classes.

You can find information and requirements of participation in Distance Learning trainings at: https://www.altkomakademia.pl/en/how-it-works/about-courses/

Training Includes

- manual in electronic form available on the platform: https://learn.microsoft.com/pl-pl/training/
- access to Altkom Akademia's student portal

Duration

1 days / 7 hours

Language

- Training: English
- Materials: English