

Develop generative AI apps in Azure

Develop Generative AI Apps in Azure is an intensive Applied Skills training focused on designing generative artificial intelligence applications using the Azure AI Foundry platform. Participants will learn how to build custom Copilots, work with advanced language models, implement prompt flow, and create AI solutions aligned with responsible AI development principles.

The training provides practical skills in applying Retrieval Augmented Generation (RAG) techniques, fine-tuning models, and evaluating their performance. This course is ideal for technical professionals looking to expand their expertise in developing applications based on Large Language Models (LLMs).



Training recipients

The training is intended for technical professionals who want to develop advanced generative AI solutions within the Microsoft Azure environment.

It is especially recommended for:

- Data Scientists and AI Engineers with experience in Python and generative AI models who want to build their own Copilots on the Azure platform.
- AI application developers planning to implement solutions based on large language models (LLMs) and leverage the potential of prompt flow and Retrieval Augmented Generation (RAG).
- IT specialists interested in generative AI, looking to expand their skills in designing applications using Microsoft Azure AI Studio.
- Teams implementing AI within organizations, aiming to build responsible and effective AI solutions tailored to their own data and business processes.

- Individuals preparing for roles related to LLM-based application development, seeking to gain practical, job-ready skills in the field of generative AI.



Benefits

- Comprehensive work with Azure AI Foundry – learn how to use the Azure AI Foundry platform to build advanced generative artificial intelligence solutions.
- Creating custom Copilots – gain the skills to design and deploy your own Copilot applications based on language models tailored to specific user needs.
- Advanced prompt engineering – develop expertise in creating effective prompt flows and integrating data using the Retrieval Augmented Generation (RAG) approach.
- Responsible AI development – understand how to build AI applications with a focus on ethics, security, and filtering of potentially harmful content.
- Model performance evaluation and optimization – learn how to analyze and enhance generative AI applications using both manual and automated evaluation methods



Training program

1.Planning and Preparation for Building AI Solutions on Azure

- Introduction to the world of Artificial Intelligence
- What is AI and how does it work?
- Discovering Azure AI Services
- Understanding Azure AI Foundry
- Developer tools and SDKs in practice
- Responsible AI
- Exercise – Preparing for an AI development project

2.Selecting and Deploying Models from the Model Catalog in the Azure AI Foundry Portal

- Introduction to the model catalog
- Exploring the language model catalog
- Deploying a model to an endpoint
- Optimizing model performance
- Exercise – Exploring, deploying, and conversing with language models

3.Developing AI Applications with the Azure AI Foundry SDK

- Introduction to AI application development
- Understanding the Azure AI Foundry SDK
- Working with project connections

- Creating a chat client
 - Exercise – Building a chat application with generative AI
4. Getting Started with Prompt Flow to Create Language Model Applications in Azure AI Foundry
- Introduction to prompt flow
 - Understanding the lifecycle of a large language model (LLM)-based application
 - Understanding the main components and exploring flow types
 - Discovering connections and runtimes
 - Exploring variants and monitoring options
 - Exercise – Getting started with prompt flow
5. Building a RAG-based Solution with Your Own Data Using Azure AI Foundry
- Introduction to Retrieval Augmented Generation
 - Understanding how to ground your language model
 - Creating searchable data
 - Building a RAG-based client application
 - Implementing RAG in prompt flow
 - Exercise – Building a generative AI application using your own data
6. Fine-tuning a Language Model with Azure AI Foundry
- Introduction to fine-tuning models
 - Understanding when to fine-tune a language model
 - Preparing data for chat completion model fine-tuning
 - Exploring language model fine-tuning in the Azure AI Foundry portal
 - Exercise – Fine-tuning a language model
7. Implementing a Responsible Generative AI Solution in Azure AI Foundry
- Introduction to Responsible AI
 - Planning a responsible generative AI solution
 - Mapping potential threats
 - Measuring potential harm
 - Mitigating potential threats
 - Managing a responsible generative AI solution
 - Exercise – Applying content filters to prevent harmful content
8. Evaluating Generative AI Performance in the Azure AI Foundry Portal
- Introduction to copilot evaluation
 - Evaluating model performance
 - Manual evaluation of model performance
 - Automated evaluations
 - Exercise – Evaluating generative AI model performance



Expected preparation of the participant

- Understanding of Azure AI services (AI-900)
- Basic Python programming skills (PYTH01)
- Copilot Foundations (AI-3018)

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

* electronic handbook available at:

<https://learn.microsoft.com/pl-pl/training/>

- access to the Altkom Akademia student portal

Product Includes

- Lecture (40%)
- Workshops (60%)



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Language

Lecture: English

Materials: English