Develop generative AI apps in Azure AI Foundry portal (AI-3016)

ID AI-3016   **Price** 690.— €(excl. tax)   **Duration** 1 day

Course Overview

Generative Artificial Intelligence (AI) is becoming more accessible through comprehensive development platforms like Azure AI Foundry. Learn how to build generative AI applications that use language models to chat with your users.

Prerequisites

Before starting this module, you should be familiar with fundamental AI concepts and services in Azure. Consider completing the Get started with artificial intelligence learning path first.

Course Content

- Plan and prepare to develop AI solutions on Azure
- Choose and deploy models from the model catalog in Azure AI Foundry portal
- Develop an AI app with the Azure AI Foundry SDK
- Get started with prompt flow to develop language model apps in the Azure AI Foundry
- Develop a RAG-based solution with your own data using Azure AI Foundry
- Fine-tune a language model with Azure AI Foundry
- Implement a responsible generative AI solution in Azure AI Foundry
- Evaluate generative AI performance in Azure AI Foundry portal

Detailed Course Outline

Plan and prepare to develop AI solutions on Azure

Microsoft Azure offers multiple services that enable developers to build amazing AI-powered solutions. Proper planning and preparation involves identifying the services you'll use and creating an optimal working environment for your development team.

- Introduction
- What is AI?
- Azure AI services
- Azure AI Foundry
- Developer tools and SDKs
- Responsible AI
- Exercise - Prepare for an AI development project
- Module assessment
- Summary

Choose and deploy models from the model catalog in Azure AI Foundry portal

Choose the various language models that are available through the Azure AI Foundry's model catalog. Understand how to select, deploy, and test a model, and to improve its performance.

- Introduction
- Explore the model catalog
- Deploy a model to an endpoint
- Optimize model performance
- Exercise - Explore, deploy, and chat with language models
- Module assessment
- Summary

Develop an AI app with the Azure AI Foundry SDK

Use the Azure AI Foundry SDK to develop AI applications with Azure AI Foundry projects.

- Introduction
- What is the Azure AI Foundry SDK?
- Work with project connections
- Create a chat client
- Exercise - Create a generative AI chat app
- Module assessment
- Summary

Get started with prompt flow to develop language model apps in the Azure AI Foundry

Learn about how to use prompt flow to develop applications that leverage language models in the Azure AI Foundry.

- Introduction
- Understand the development lifecycle of a large language model (LLM) app
- Understand core components and explore flow types

- Explore connections and runtimes
- Explore variants and monitoring options
- Exercise - Get started with prompt flow
- Module assessment
- Summary

Develop a RAG-based solution with your own data using Azure AI Foundry

Retrieval Augmented Generation (RAG) is a common pattern used in generative AI solutions to ground prompts with your data. Azure AI Foundry provides support for adding data, creating indexes, and integrating them with generative AI models to help you build RAG-based solutions.

- Introduction
- Understand how to ground your language model
- Make your data searchable
- Create a RAG-based client application
- Implement RAG in a prompt flow
- Exercise - Create a generative AI app that uses your own data
- Module assessment
- Summary

Fine-tune a language model with Azure AI Foundry

Train a base language model on a chat-completion task. The model catalog in Azure AI Foundry offers many open-source models that can be fine-tuned for your specific model behavior needs.

- Introduction
- Understand when to fine-tune a language model
- Prepare your data to fine-tune a chat completion model
- Explore fine-tuning language models in Azure AI Studio
- Exercise - Fine-tune a language model
- Module assessment
- Summary

Implement a responsible generative AI solution in Azure AI Foundry

Generative AI enables amazing creative solutions, but must be implemented responsibly to minimize the risk of harmful content generation.

- Introduction
- Plan a responsible generative AI solution
- Map potential harms
- Measure potential harms
- Mitigate potential harms

- Manage a responsible generative AI solution
- Exercise - Apply content filters to prevent the output of harmful content
- Module assessment
- Summary

Evaluate generative AI performance in Azure AI Foundry portal

Evaluating copilots is essential to ensure your generative AI applications meet user needs, provide accurate responses, and continuously improve over time. Discover how to assess and optimize the performance of your generative AI applications using the tools and features available in the Azure AI Studio.

- Introduction
- Assess the model performance
- Manually evaluate the performance of a model
- Automated evaluations
- Assess the performance of your generative AI apps
- Exercise - Evaluate generative AI model performance
- Module assessment
- Summary

About Fast Lane

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