

## Develop AI solutions in Azure (AI-102)

**Duration: 4 Days**    **Course Code: M-AI102**    **Delivery Method: Virtual Learning**

### Overview:

Develop AI solutions in Azure is intended for software developers wanting to build AI infused applications that leverage Azure AI Foundry and other Azure AI services. Topics in this course include developing generative AI apps, building AI agents, and solutions that implement computer vision and information extraction. The course will use C# or Python as the programming language.

#### Virtual Learning

This interactive training can be taken from any location, your office or home and is delivered by a trainer. This training does not have any delegates in the class with the instructor, since all delegates are virtually connected. Virtual delegates do not travel to this course, Global Knowledge will send you all the information needed before the start of the course and you can test the logins.

### Target Audience:

This course was designed for software engineers concerned with building, managing and deploying AI solutions that leverage Azure AI Foundry and other Azure AI services. They are familiar with C# or Python and have knowledge on using REST-based APIs and SDKs to build generative AI, computer vision, language analysis, and information extraction solutions on Azure.

### Objectives:

- Students will learn to:
- Describe considerations for AI-enabled application development
- Create, configure, deploy, and secure Azure Cognitive Services
- Develop applications that analyze text
- Develop speech-enabled applications
- Create applications with natural language understanding capabilities
- Create QnA applications
- Create conversational solutions with bots
- Use computer vision services to analyze images and videos
- Create custom computer vision models
- Develop applications that detect, analyze, and recognize faces
- Develop applications that read and process text in images and documents
- Create intelligent search solutions for knowledge mining

### Prerequisites:

Before attending this course, students must have:

- Knowledge of Microsoft Azure and ability to navigate the Azure portal
  - Knowledge of either C# or Python
  - Familiarity with JSON and REST programming semantics
- To gain C# or Python skills, complete the free Take your first steps with C# or Take your first steps with Python learning path before attending the course.

If you are new to artificial intelligence, and want an overview of AI capabilities on Azure, consider completing the Azure AI Fundamentals certification before taking this one.

### Testing and Certification

Exam AI-102: Designing and Implementing a Microsoft Azure AI Solution (beta)

## Content:

### Module 1: Develop generative AI apps in Azure

- 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

### Module 2: Develop AI agents on Azure

- Get started with AI agent development on Azure
- Develop an AI agent with Azure AI Foundry Agent Service
- Integrate custom tools into your agent
- Develop an AI agent with Semantic Kernel
- Orchestrate a multi-agent solution using Semantic Kernel

### Module 3: Develop natural language solutions in Azure

- Analyze text with Azure AI Language
- Create question answering solutions with Azure AI Language
- Build a conversational language understanding model
- Create a custom text classification solution
- Custom named entity recognition
- Translate text with Azure AI Translator service
- Create speech-enabled apps with Azure AI services
- Translate speech with the Azure AI Speech service
- Develop an audio-enabled generative AI application

### Module 4: Develop computer vision solutions in Azure

- Analyze images
- Read text in images
- Detect, analyze, and recognize faces
- Classify images
- Detect objects in images
- Analyze video
- Develop a vision-enabled generative AI application
- Generate images with AI

### Module 5: Develop AI information extraction solutions in Azure

- Create a multimodal analysis solution with Azure AI Content Understanding
- Create an Azure AI Content Understanding client application
- Use prebuilt Document intelligence models
- Extract data from forms with Azure Document intelligence
- Create a knowledge mining solution with Azure AI Search

## Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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