

Designing and Implementing a Microsoft Azure AI Solution

Course Duration: 32 Hrs.

Course Code: AI-102

Course Overview

Designing and Implementing an Azure AI Solution is intended for software developers wanting to build AI-infused applications that leverage Azure AI Services, Azure AI Search, and Azure OpenAI. The course will use C# or Python as the programming language.

What you'll learn?

The Azure AI certification course prepares you for Microsoft's Azure AI Engineer Associate exam AI-102. It covers Azure services like language, speech and translation, OpenAI, prompt engineering, responsible generative AI, and more.

Target Audience

Software engineers concerned with building, managing and deploying AI solutions that leverage Azure AI Services, Azure AI Search, and Azure OpenAI. They are familiar with C# or Python and have knowledge on using REST-based APIs to build computer vision, language analysis, knowledge mining, intelligent search, and generative AI solutions on Azure.

Pre-Requisites

- ❖ Basic knowledge of Microsoft Azure, AI, and machine learning concepts
- ❖ Practical experience in designing and implementing AI and ML solutions using Azure services
- ❖ Having prior Azure certifications like AZ-900 (Azure Fundamentals) can be beneficial

Course Content

Get started with Azure AI Services

- Prepare to develop AI solutions on Azure
- Create and consume Azure AI services
- Secure Azure AI services
- Monitor Azure AI services
- Deploy Azure AI services in containers

Create computer vision solutions with Azure AI Vision

- Analyze images
- Image classification with custom Azure AI Vision models
- Detect, analyze, and recognize faces
- Read Text in images and documents with the Azure AI Vision Service
- Analyze video

Develop natural language processing solutions with Azure AI Services

- 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

Implement knowledge mining with Azure AI Search

- Create an Azure AI Search solution
- Create a custom skill for Azure AI Search
- Create a knowledge store with Azure AI Search
- Enrich your data with Azure AI Language
- Implement advanced search features in Azure AI Search
- Build an Azure Machine Learning custom skill for Azure AI Search
- Search data outside the Azure platform in Azure AI Search using Azure Data Factory
- Maintain an Azure AI Search solution
- Perform search re-ranking with semantic ranking in Azure AI Search
- Perform vector search and retrieval in Azure AI Search

Develop solutions with Azure AI Document Intelligence

- Plan an Azure AI Document Intelligence solution
- Use prebuilt Document intelligence models
- Extract data from forms with Azure Document intelligence
- Create a composed Document intelligence model
- Build a Document intelligence custom skill for Azure AI search

Develop Generative AI solutions with Azure OpenAI Service

- Get started with Azure OpenAI Service
- Build natural language solutions with Azure OpenAI Service
- Apply prompt engineering with Azure OpenAI Service
- Generate code with Azure OpenAI Service
- Generate images with Azure OpenAI Service

- Implement Retrieval Augmented Generation (RAG) with Azure OpenAI Service
- Fundamentals of Responsible Generative AI

Exam Preference

Exam code	AI-102
Duration	100 minutes
Passing Score	700/1000
No. of Question	40-60