AI-901T00-A: Introduction to AI in Azure

Course Description

This course introduces **fundamental concepts related to artificial intelligence (AI)** and the **Microsoft Azure services** that can be used to create AI solutions. It blends **AI concepts** with **technology skills** that are foundational for a career in implementing AI solutions on Azure.

The course is designed for **aspiring technology professionals** at the beginning of their AI journey. While it does not aim to make students professional data scientists or developers, it builds awareness of **common AI workloads** and the ability to identify Azure services that support them.

Audience Profile:

- Beginner-level AI Engineers, Developers, and Students
- Useful for those with basic knowledge of **Python coding syntax** and programming techniques

Learning Objectives

By the end of this course, learners will be able to:

- Describe AI workloads and considerations
- Identify Azure services for common AI workloads
- Describe fundamental principles of machine learning (ML)
- Describe features of computer vision workloads
- Describe features of natural language processing (NLP) workloads
- Describe features of conversational AI workloads

Course Duration : 1 Day

Content Coverage :

❖ AI concepts for developers and technology professionals

Module 1: Introduction to AI concepts

- Generative AI and agents
- Text and natural language
- Speech
- Computer vision

- Information extraction
- Responsible AI

Module 2: Introduction to generative AI and agents

- Large language models (LLMs)
- Prompts
- AI agents

Module 3: Introduction to natural language processing concepts

- Tokenization
- Statistical text analysis
- Semantic language models

Module 4: Introduction to AI speech concepts

- Speech-enabled solutions
- Speech recognition
- Speech synthesis

Module 5: Introduction to computer vision concepts

- Computer vision tasks and techniques
- Images and image processing
- Convolutional neural networks
- Vision transformers and multimodal models
- Image generation

Module 6: Introduction to AI-powered information extraction concepts

- Overview of information extraction
- Optical character recognition (OCR)
- Field extraction and mapping

❖ Get started with AI applications and agents on Azure

Module 7: Get started with AI in Azure

- Understand Azure
- Developing AI apps on Azure
- Microsoft Foundry for AI
- Using Microsoft Foundry endpoints

Module 8: Get started with generative AI and agents in Azure

- Generative AI models
- Using a generative AI model
- Creating an agent

Module 9: Get started with text analysis in Azure

- Azure Language
- Azure Language SDK
- Azure Language MCP

Module 10: Get started with speech in Azure

- Speech recognition
- Speech synthesis
- Creating a speech-capable agent

Module 11: Get started with computer vision in Azure

- Multimodal models for image analysis
- Image generation models
- Video generation models

Module 12: Get started with AI-powered information extraction in Azure

- Extract information from documents
- Extract information from audio and video