Build an Azure AI Vision solution with Azure AI services (AI-3004)

Modality: Virtual Classroom

Duration: 1 Day

About This Course:

The AI-3004: Build an Azure AI Vision with Azure AI Services certification is a hypothetical credential that would demonstrate expertise in implementing computer vision solutions using Microsoft Azure AI services. This certification would cover concepts such as analyzing images and videos for insights, automating image-processing tasks, and building and deploying vision-based AI models. Industries use this certification to validate the skills of professionals who develop applications that can interpret visual data, which is increasingly important in fields like retail for inventory management, manufacturing for quality control, and security for surveillance systems. It showcases a practical understanding of Azure's computer vision tools and how to apply them to solve real-world problems.

Course Objectives:

- **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**

Audience:

- Solution architects
- AI developers
- Data scientists
- IT professionals specializing in AI
- Technical team leads overseeing AI projects

Prerequsites:

- Basic understanding of Azure fundamentals
- Familiarity with AI and machine learning concepts
- Knowing Python programming
- Experience with data science workloads on Azure
- Understanding of Azure Cognitive Services and Azure Machine Learning service

Course Outline:

Analyze images

- Provision an Azure AI Vision resource
- Analyze an image
- Generate a smart-cropped thumbnail and remove background

Image classification with custom Azure AI Vision models

- Understand custom model types
- Create a custom project
- Label and train a custom model

Detect, analyze, and recognize faces

- Identify options for face detection analysis and identification
- Understand considerations for face analysis
- Detect faces with the Azure AI Vision service
- Understand capabilities of the face service
- Compare and match detected faces
- Implement facial recognition

Read Text in images and documents with the Azure AI Vision Service

- Explore Azure AI Vision options for reading text
- Use the Read API

Analyze video

- Understand Azure Video Indexer capabilities
- Extract custom insights
- Use Video Analyzer widgets and APIs