AI102

Designing and Implementing a Microsoft Azure AI Solution

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AI102 - Version: 1

🕐 4 days Course

Description:

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

Intended audience:

Software engineers concerned with building, managing and deploying AI solutions that leverage Azure Cognitive Services, Azure Cognitive Search, and Microsoft Bot Framework. 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 conversational AI solutions on Azure.

Prerequisites:

Knowledge of Microsoft Azure and ability to navigate the Azure portal
Knowledge of either C# or Python
Familiarity with JSON and REST programming semantics

Objectives:

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

Topics:

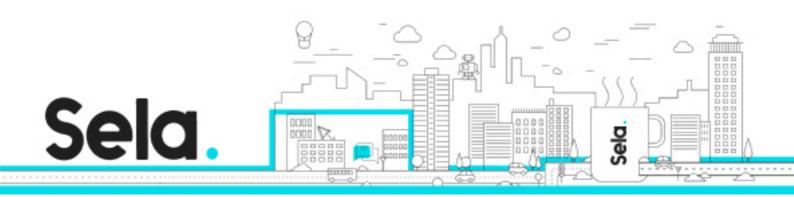## Module 1: Introduction to AI on Azure

- Introduction to Artificial Intelligence
- Artificial Intelligence in Azure

Module 2: Developing AI Apps with Cognitive Services

- Getting Started with Cognitive Services
- Using Cognitive Services for Enterprise Applications

Module 3: Getting Started with Natural Language Processing

- Analyzing Text
- Translating Text

Module 4: Building Speech-Enabled Applications

- Speech Recognition and Synthesis
- Speech Translation

Module 5: Creating Language Understanding Solutions

- Creating a Language Understanding App
- Publishing and Using a Language Understanding App
- Using Language Understanding with Speech

Module 6: Building a QnA Solution

- Creating a QnA Knowledge Base
- Publishing and Using a QnA Knowledge Base

Module 7: Conversational AI and the Azure Bot Service

- Bot Basics
- Implementing a Conversational Bot

Module 8: Getting Started with Computer Vision

- Analyzing Images
- Analyzing Videos

Module 9: Developing Custom Vision Solutions

- Image Classification
- Object Detection

Module 10: Detecting, Analyzing, and Recognizing Faces

- Detecting Faces with the Computer Vision Service
- Using the Face Service

Module 11: Reading Text in Images and Documents

- Reading text with the Computer Vision Service
- Extracting Information from Forms with the Form Recognizer service

Module 12: Creating a Knowledge Mining Solution

- Implementing an Intelligent Search Solution
- Developing Custom Skills for an Enrichment Pipeline
- Creating a Knowledge Store