

Sela.

AI102

Designing and Implementing a Microsoft Azure AI Solution

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Designing and Implementing a Microsoft Azure AI Solution

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:

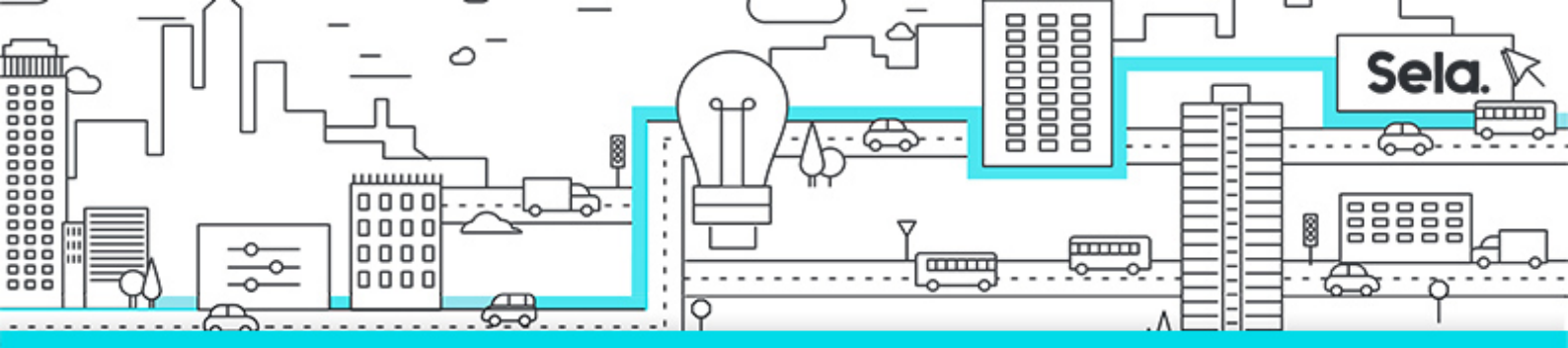
- Describe considerations for AI-enabled application development
- Create, configure, deploy, and secure Azure Cognitive Services
- Develop applications that analyze text
- Develop speech-enabled applications



- 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