

## AI-100T01-A: Designing and Implementing an Azure AI Solution

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### Course Summary

#### Description

Build a customer support chat Bot that use artificial intelligence from the Microsoft Azure platform including language understanding and pre-built AI functionality in the Azure Cognitive Services.

#### Topics

- Introducing Azure Cognitive Services
- Creating Bots
- Enhancing Bots with QnA Maker
- Learn How to Create Language Understanding Functionality with LUIS
- Enhancing Your Bots with LUIS
- Integrate Cognitive Services with Bots and Agents

#### Audience

This course is aimed at Cloud Solution Architects, Azure artificial intelligence designers, and AI developers.

#### Prerequisites

Before attending this course, students must have Azure fundamentals and C# knowledge.

#### Duration

Three days

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### Course Outline

#### *I. Introducing Azure Cognitive Services*

The student will learn about the available Cognitive Services on Microsoft Azure and their role in architecting AI solutions.

- A. Overview of Azure Cognitive Services
- B. Creating a Cognitive Service on the Azure Portal
- C. Access and Test a Cognitive Service

#### *II. Creating Bots*

The student will learn about the Microsoft Bot Framework and Bot Services.

- A. Introducing the Bot Service
- B. Creating a Basic Chat Bot
- C. Testing with the Bot Emulator

#### *III. Enhancing Bots with QnA Maker*

The student will learn about the QnA Maker and how to integrate Bots and QnA Maker to build up a useful knowledge base for user interactions.

- A. Introducing QnA Maker
- B. Implement a Knowledge Base with QnA Maker
- C. Integrate QnA with a Bot

#### *IV. Learn How to Create Language Understanding Functionality with LUIS*

The student will learn about LUIS and how to create intents and utterances to support a natural language processing solution.

- A. Introducing Language Understanding
- B. Create a new LUIS Service
- C. Build Language Understanding with Intents and Utterances

#### *V. Enhancing Your Bots with LUIS*

The student will learn about integrating LUIS with a Bot to better understand the users' intentions when interacting with the Bot.

- A. Overview of language understanding for AI applications
- B. Integrate LUIS and Bot to create an AI-based solution

#### *VI. Integrate Cognitive Services with Bots and Agents*

The student will learn about integrating Bots and Agents with Azure Cognitive Services for advanced features such as sentiment analysis, image and text analysis, and OCR and object detection.

- A. Understand Cognitive Services for Bot Interactions
- B. Perform Sentiment Analysis for your Bot with Text Analytics
- C. Detect Language in a Bot with the Language Cognitive Services
- D. Integrate Computer Vision with Bots