

# Designing and Implementing an Azure AI Solution

## AI-100T01-A



<b>Course Name</b>	<b>Designing and Implementing an Azure AI Solution</b>
<b>Course Code</b>	<b>AI-100T01-A</b>
<b>Course Duration</b>	3 Days
<b>Course Structure</b>	Instructor-Led
<b>Course Overview</b>	Gain the necessary knowledge for designing Azure AI solution by building a customer support chat Bot using artificial intelligence from the Microsoft Azure platform including language understanding and pre-built AI functionality in the Azure Cognitive Services.
<b>Audience Profile</b>	This course is aimed at Cloud Solution Architects, Azure artificial intelligence designers, and AI developers.
<b>Course Prerequisites</b>	<p>Successful Azure AI Engineers start this role with professional experience with cloud technologies, and experience with software development kits.</p> <p>Specifically:</p> <ul style="list-style-type: none"> <li>• Implementing solutions in C# or Python</li> <li>• Application development in the cloud</li> <li>• Understanding Azure storage technologies</li> </ul>
<b>Course Outcome</b>	<p>After completing this course, students will be able to:</p> <ul style="list-style-type: none"> <li>• Create a Cognitive Service on the Azure Portal</li> <li>• Create a Basic Chat Bot</li> <li>• Integrate Bots and QnA Maker to build up a useful knowledge base for user interactions.</li> <li>• Create Language Understanding Functionality with LUIS (Language Understanding with Intents and Utterances)</li> </ul>

<b>Assessment/Evaluation</b>	<p>This course will prepare delegates to take Exam: AI-100 Designing and Implementing an Azure AI Solution</p> <p>Successfully passing this exam will result in the attainment of Designing and Implementing an Azure AI Solution and Certificate of Attendance issued by IT-IQ Botswana</p>
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<b>Course Details</b>	
Topic	<p><b>Topic 1: Introducing Azure Cognitive Services</b></p> <p>The student will learn about the available Cognitive Services on Microsoft Azure and their role in architecting AI solutions.</p> <p><b>Lessons</b></p> <ul style="list-style-type: none"> <li>• Overview of Azure Cognitive Services</li> <li>• Creating a Cognitive Service on the Azure Portal</li> <li>• Access and Test a Cognitive Service</li> </ul> <p><b>Topic 2: Creating Bots</b></p> <p>The student will learn about the Microsoft Bot Framework and Bot Services.</p> <p><b>Lessons</b></p> <ul style="list-style-type: none"> <li>• Introducing the Bot Service</li> <li>• Creating a Basic Chat Bot</li> <li>• Testing with the Bot Emulator</li> </ul> <p><b>Topic 3: Enhancing Bots with QnA Maker</b></p> <p>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.</p> <p><b>Lessons</b></p> <ul style="list-style-type: none"> <li>• Introducing QnA Maker</li> <li>• Implement a Knowledge Base with QnA Maker</li> <li>• Integrate QnA with a Bot</li> </ul>

	<p><b>Topic 4: Learn How to Create Language Understanding Functionality with LUIS</b> The student will learn about Language Understanding with Intents and Utterances (LUIS) and how to create intents and utterances to support a natural language processing solution.</p> <p><b>Lessons</b></p> <ul style="list-style-type: none"><li>• Introducing Language Understanding</li><li>• Create a new LUIS Service</li><li>• Build LUIS</li></ul> <p><b>Topic 5: Enhancing Your Bots with LUIS</b> The student will learn about integrating LUIS with a Bot to better understand the users' intentions when interacting with the Bot.</p> <p><b>Lessons</b></p> <ul style="list-style-type: none"><li>• Overview of language understanding for AI applications</li><li>• Integrate LUIS and Bot to create an AI-based solution</li></ul> <p><b>Topic 6: Integrate Cognitive Services with Bots and Agents</b> 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.</p> <p><b>Lessons</b></p> <ul style="list-style-type: none"><li>• Understand Cognitive Services for Bot Interactions</li><li>• Perform Sentiment Analysis for your Bot with Text Analytics</li><li>• Detect Language in a Bot with the Language Cognitive Services</li><li>• Integrate Computer Vision with Bots</li></ul>
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