

## Develop natural language solutions in Azure (AI-3003)

**Duration: 1 Day**    **Course Code: M-AI3003**    **Delivery Method: Company Event**

### Overview:

Natural language processing (NLP) solutions use language models to interpret the semantic meaning of written or spoken language. You can use the Language Understanding service to build language models for your applications.

#### Company Events

These events can be delivered exclusively for your company at our locations or yours, specifically for your delegates and your needs. The Company Events can be tailored or standard course deliveries.

### Objectives:

- In this course you'll learn:
  - Analyze text with Azure AI Language
  - Create question answering solutions with Azure AI Language
  - Build a conversational language understanding model
  - Create a custom text classification solution
- Custom named entity recognition
- Translate text with Azure AI Translator service
- Create speech-enabled apps with Azure AI services
- Translate speech with the Azure AI Speech service
- Develop an audio-enabled generative AI application

### Prerequisites:

Before starting this course, you should already have:

- Familiarity with Azure and the Azure portal.
- Experience programming with C# or Python. If you have no previous programming experience, we recommend you complete the Take your first steps with C# or Take your first steps with Python learning path before starting this one.

## Content:

### Module 1: Analyze text with Azure AI Language

- Provision an Azure AI Language resource
- Detect language
- Extract key phrases
- Analyze sentiment
- Extract entities
- Extract linked entities

### Module 2: Create question answering solutions with Azure AI Language

- Understand question answering
- Compare question answering to Azure AI Language understanding
- Create a knowledge base
- Implement multi-turn conversation
- Test and publish a knowledge base
- Use a knowledge base
- Improve question answering performance
- Exercise - Create a question answering solution

### Module 3: Build a conversational language understanding model

- Understand prebuilt capabilities of the Azure AI Language service
- Understand resources for building a conversational language understanding model
- Define intents, utterances, and entities
- Use patterns to differentiate similar utterances
- Use pre-built entity components
- Train, test, publish, and review a conversational language understanding model
- Exercise - Build an Azure AI services conversational language understanding model

### Module 4: Create a custom text classification solution

- Understand types of classification projects
- Understand how to build text classification projects
- Exercise - Classify text

### Module 5: Custom named entity recognition

- Understand custom named entity recognition
- Label your data
- Train and evaluate your model
- Exercise - Extract custom entities

### Module 6: Translate text with Azure AI Translator service

- Provision an Azure AI Translator resource
- Understand language detection, translation, and transliteration
- Specify translation options
- Define custom translations
- Exercise - Translate text with the Azure AI Translator service

### Module 7: Create speech-enabled apps with Azure AI services

- Provision an Azure resource for speech
- Use the Azure AI Speech to Text API
- Use the text to speech API
- Configure audio format and voices
- Use Speech Synthesis Markup Language
- Exercise - Create a speech-enabled app

### Module 8: Translate speech with the Azure AI Speech service

- Provision an Azure resource for speech translation
- Translate speech to text
- Synthesize translations
- Exercise - Translate speech

### Module 9: Develop an audio-enabled generative AI application

- Deploy a multimodal model
- Develop an audio-based chat app
- Exercise - Develop an audio-enabled chat app

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## Further Information:

For More information, or to book your course, please call us on 0800/84.009

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