APPLIED SKILLS

Build a natural language processing solution with Azure AI Language

ROLE	SKILL LEVEL	DELIVERY METHOD	PRODUCT	TECHNOLOGY
AI Engineer	Intermediate	VILT/ILT	Azure AI Language	Data & AI

Course Overview

To earn this Microsoft Applied Skills credential, learners demonstrate the ability to create a natural language processing (NLP) solution by using Azure AI Language.

Candidates for this credential should have a solid understanding of creating and using various Azure NLP models through both Language Studio and in code, including custom models. They should also have experience programming in either Python or C#, be familiar with the Azure portal, and be comfortable provisioning Azure AI resources.

Tasks performed.

- Deploy a language resource, and use prebuilt models
- Create a custom text classification solution
- Create a custom named entity recognition (NER) solution

Prerequisites

- Familiarity with Microsoft Azure and the Azure portal.
- Experience programming with C# or Python.
- 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 first.

- The Azure portal

- Familiarity with Azure AI Services

- General programming techniques

Prepare for the assessment.

Module 1: Analyze text with Azure AI Language

Learning objectives

In this module, you'll learn how to use the Azure AI Language service to:

- Detect language from text

- Analyze text sentiment

- Extract key phrases, entities, and linked entities

Module 2: Build a question answering solution

The question answering capability of the Azure AI Language service makes it easy to build applications in which users ask questions using natural language and receive appropriate answers.

Learning objectives

After completing this module, you will be able to:

- Understand question answering and how it compares to language understanding

- Create, test, publish and consume a knowledge base

- Implement multi-turn conversation and active learning

- Create a question answering bot to interact with using natural language

Module 3: Build a conversational language understanding model

The Azure AI Language conversational language understanding service (CLU) enables you to train a model that apps can use to extract meaning from natural language.

Learning objectives

After completing this module, you'll be able to:

- Provision Azure resources for Azure AI Language resource

- Define intents, utterances, and entities

- Use patterns to differentiate similar utterances

- Use pre-built entity components

- Train, test, publish, and review an Azure AI Language model

Module 4: Create a custom text classification solution

The Azure AI Language service enables processing of natural language to use in your own app. Learn how to build a custom text classification project.

Learning objectives

After completing this module, you'll be able to:

- Understand types of classification projects

- Build a custom text classification project

- Tag data, train, and deploy a model

- Submit classification tasks from your own app

Module 5: Create a custom named entity extraction solution

Build a custom entity recognition solution to extract entities from unstructured documents

Learning objectives

After completing this module, you'll be able to:

- Understand custom named entities and how they're labeled.

- Build a Language service project.

- Label data, train, and deploy an entity extraction model.

- Submit extraction tasks from your own app.

Module 6: Translate text with Azure AI Translator service

The Translator service enables you to create intelligent apps and services that can translate text between languages.

Learning objectives

After completing this module, you'll be able to:

- Provision a Translator resource

- Understand language detection, translation, and transliteration

- Specify translation options

- Define custom translations

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

The Azure AI Speech service enables you to build speech-enabled applications. This module focuses on using the speech-to-text and text to speech APIs, which enable you to create apps that are capable of speech recognition and speech synthesis.

Learning objectives

In this module, you'll learn how to:

- Provision an Azure resource for the Azure AI Speech service
- Use the Azure AI Speech to text API to implement speech recognition
- Use the Text to speech API to implement speech synthesis
- Configure audio format and voices
- Use Speech Synthesis Markup Language (SSML)

Module 8: Translate speech with the Azure AI Speech service

Translation of speech builds on speech recognition by recognizing and transcribing spoken input in a specified language, and returning translations of the transcription in one or more other languages.

Learning objectives

In this module, you will learn how to:

- Provision Azure resources for speech translation.
- Generate text translation from speech.
- Synthesize spoken translations.

Take the assessment.

You will have 2 hr to complete this assessment.

This assessment will use an interactive lab to evaluate your performance. It will take a few minutes to load the lab, and you may do other activities while it loads. After you launch the lab, you will need to wait **72 hours** to launch it again. Your mouse movements and text entered during the lab will be recorded for quality purposes. Learn more

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