

AI-3022: Implement knowledge mining with Azure AI Search

Course Code: AI-3022

Duration: 1 day

Instructor-led Training (ILT) | Virtual Instructor-led Training (VILT)

OVERVIEW

Do you have information locked up in structured and unstructured data sources? Using Azure AI Search, you can extract key insights from this data, and enable applications to search and analyze them.

SKILLS COVERED

- Create an Azure AI Search solution
- Create a custom skill for Azure AI Search
- Create a knowledge store with Azure AI Search
- Implement advanced search features in Azure AI Search
- Search data outside the Azure platform in Azure AI Search using Azure Data Factory
- Maintain an Azure AI Search solution
- Perform search reranking with semantic ranking in Azure AI Search
- Perform vector search and retrieval in Azure AI Search

WHO SHOULD ATTEND?

- AI Engineer
- Developer
- Solution Architect
- Student

PREREQUISITES

- Familiarity with Microsoft Azure

- Application development experience with C# or Python

MODULES

Module 1: Create an Azure AI Search solution

Unlock the hidden insights in your data with Azure AI Search.

Learning objectives

In this module you'll learn how to:

- Create an Azure AI Search solution
- Develop a search application

Prerequisites

- Familiarity with Microsoft Azure
- Application development experience with C# or Python

Module 2: Create a custom skill for Azure AI Search

Use the power of artificial intelligence to enrich your data and find new insights with custom skills in Azure AI Search.

Learning objectives

In this module you'll learn how to:

- Implement a custom skill for Azure AI Search
- Create a custom text classification skill
- Create a machine learning custom skill

Prerequisites

- Familiarity with Microsoft Azure
- Application development experience with C# or Python

- Experience of building a basic search solution with Azure AI Search. If you haven't completed the [Create an Azure AI Search solution](#) module, you should do so before starting this module.

Module 3: Create a knowledge store with Azure AI Search

Persist the output from an Azure AI Search enrichment pipeline for independent analysis or downstream processing.

Learning objectives

In this module you'll learn how to:

- Create a knowledge store from an Azure AI Search pipeline
- View data in projections in a knowledge store

Prerequisites

- Familiarity with Microsoft Azure
- Application development experience with C# or Python
- Experience of creating an enrichment pipeline with Azure AI Search. If you haven't completed the [Create an Azure AI Search solution](#) module, do so before starting this module.

Module 4: Implement advanced search features in Azure AI Search

Use more advanced features of Azure AI Search to improve your existing search solutions. Learn how to change the ranking on documents, boost terms, and allow searching in multiple languages.

Learning objectives

In this module, you'll learn how to:

- Improve the ranking of a document with term boosting
- Improve the relevance of results by adding scoring profiles
- Improve an index with analyzers and tokenized terms
- Enhance an index to include multiple languages
- Improve search experience by ordering results by distance from a given reference point

Prerequisites

- Familiarity with Microsoft Azure
- Application development experience with C# or Python
- Experience of building a basic search solution with Azure AI Search. If you haven't completed the [Create an Azure AI Search](#) solution module, you should do so before starting this module

Module 5: Search data outside the Azure platform in Azure AI Search using Azure Data Factory

Use Azure Data Factory to add data that resides inside or outside the Azure platform into your search indexes.

Learning objectives

In this module, you'll learn how to:

- Use Azure Data Factory to copy data into an Azure AI Search Index
- Use the Azure AI Search push API to add to an index from any external data source

Prerequisites

- Familiarity with Microsoft Azure

- Application development experience with C# or Python
- Experience of building a basic search solution with Azure AI Search. If you haven't completed the [Create an Azure AI Search solution](#) module, you should do so before starting this module
- Experience using Azure Data Factory for data integration

Module 6: Maintain an Azure AI Search solution

Maintain the performance, cost, and reliability of your Azure AI Search solutions.

Learning objectives

In this module, you'll learn how to:

- Use Language Studio to enrich Azure AI Search indexes
- Enrich an AI Search index with custom classes

Prerequisites

- Familiarity with Microsoft Azure
- Application development experience with C# or Python
- Experience of building a basic search solution with Azure AI Search. If you've not completed the [Create an Azure AI Search](#) solution module, you should do so before starting this module.

Module 7: Perform search reranking with semantic ranking in Azure AI Search

Learn how to perform L2 ranking with semantic ranker in Azure AI Search.

Learning objectives

By the end of this module, you'll be able to:

- Describe semantic ranking
- Set up semantic ranking
- Perform semantic ranking on an index

Prerequisites

- Familiarity with Microsoft Azure
- Familiarity with Azure AI Search
- Application development experience

Module 8: Perform vector search and retrieval in Azure AI Search

Learn how to perform vector search and retrieval in Azure AI Search.

Learning objectives

By the end of this module, you'll learn how to:

- Describe vector search
- Describe embeddings
- Run vector search queries using the REST API

Prerequisites

- Familiarity with Microsoft Azure
- Familiarity with Azure AI Search
- Application development experience

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