

### SAIL SMOOTH IN TECH OCEAN

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# Al-102: Designing and Implementing an Azure Al Solution

The course aims to equip participants with the skills to plan, manage, and implement Azure Al solutions effectively. Covering decision support, computer vision, natural language processing, knowledge mining, document intelligence, and generative AI, it prepares learners to leverage Azure AI services for various applications and scenarios.

Exam: Yes

Course Vendor: Microsoft

Lab/Exercise: Yes

## **Course Outcomes**

- Plan and manage an Azure Al solution
- Implement decision support solutions
- Implement computer vision solutions
- Implement natural language processing solutions
- Implement knowledge mining and document intelligence solutions
- Implement generative AI solutions

# **Important Note:**

- Courseware Reference material/ppt along with lab files/exercises will be provided
- Azurepass/Virtual Machine will be provided only during the training time to perform the labs

## **Tech Stack To Be Covered**







#### Module 01 - Get started with Azure AI Services

- 1.1 Prepare to develop AI solutions on Azure
- 1.2 Create and consume Azure AI services
- Lab: Get Started with Azure AI Services
- 1.3 Secure Azure AI services
- Demo: Manage Azure AI Services Security
- 1.4 Monitor Azure AI services
- Demo: Monitor Azure AI Services
- 1.5 Deploy Azure AI services in containers
- Demo: Use a container

## Module 02 - Develop decision support solutions with Azure AI Services

- 2.1 Classify and moderate text with Azure Content Moderator
- Demo: Test text moderation by using the API testing console

## Module 03 - Create computer vision solutions with Azure AI Vision

- 3.1 Analyze images
- Lab: Analyze Images with Azure AI Vision
- 3.2 Image classification with custom Azure AI Vision models
- Lab: Classify images with a Azure AI Vision custom model
- 3.3 Detect, analyse, and recognize faces
- 3.4 Read Text in images and documents with the Azure AI Vision Service
- Lab: Read Text in Images
- 3.5 Analyze video

### Module 04 - Develop natural language processing solutions with Azure AI Services

- 4.1 Analyze text with Azure AI Language
- Lab: Analyze Text
- 4.2 Build a question answering solution
- Lab: Create a Question Answering Solution
- 4.3 Build a conversational language understanding model
- Lab: Create a language understanding model with the Language service
- 4.4 Translate text with Azure AI Translator service
- 4.5 Create speech-enabled apps with Azure AI services
- 4.6 Translate speech with the Azure AI Speech service
- Lab: Recognize and synthesize speech

### Module 05 - Implement knowledge mining with Azure AI Search

- 5.1 Create an Azure AI Search solution
- Demo: Create an Azure AI Search Solution
- 5.2 Create a custom skill for Azure AI Search
- Lab: Create a Custom Skill for Azure AI Search
- 5.3 Create a knowledge store with Azure AI Search

#### Module 06 - Develop solutions with Azure AI Document Intelligence

- 6.1 Plan an Azure AI Document Intelligence solution
- 6.2 Use prebuilt Form Recognizer models
- Demo: Using prebuilt form
- 6.3 Extract data from forms with Azure Document Intelligence
- Lab: Extract Data from Forms

## Module 07 - Develop Generative AI solutions with Azure OpenAI Service

- 7.1 Get started with Azure OpenAI Service
- Lab: Integrate Azure OpenAI into your app
- 7.2 Build natural language solutions with Azure OpenAI Service
- 7.3 Apply prompt engineering with Azure OpenAI Service
- Lab: Utilize prompt engineering in your app
- 7.4 Generate code with Azure OpenAI Service
- 7.5 Generate Image with Azure OpenAI Service
- Lab: Use your own data with Azure OpenAI