

## PRACTICAL-3

Aim:- Implementation of AI Model on Azure.

**Azure AI Foundry** is a **unified platform** by Microsoft to **develop, operationalize, and scale AI models**—especially generative AI and foundation models—using a blend of **Azure AI services, MLOps, PromptFlow, and more**.

It helps enterprises and developers:

- Rapidly build models (or use prebuilt foundation models like GPT, Codex, etc.)
- Integrate with data in Azure
- Deploy and monitor models at scale
- Use **PromptFlow** for prompt engineering and evaluations

Steps:-

### 1. Set Up AI Foundry Project

- Go to **Azure AI Studio** (<https://ai.azure.com/>)
- Click on "**Create project**" under AI Foundry
- Choose:
  - Project Name
  - Select Azure ML Workspace
  - Choose storage and compute resources

### ◆ 2. Choose a Foundation Model or Upload Your Own

- In the Foundry dashboard:
  - Use **prebuilt models** from OpenAI, Meta, Hugging Face, etc.
  - OR upload your custom model (PyTorch, ONNX, etc.)

### ◆ **3. Build a PromptFlow or Model Pipeline**

- Go to "**Prompt Flow**" tab
- Create a new **Prompt Flow** with:
  - Prompt Template (e.g., a GPT-style prompt)
  - Data source (optional)
  - Evaluation logic (metrics like BLEU, accuracy, etc.)

### ◆ **4. Connect and Configure Datasets**

- Add datasets from Azure Blob, Azure Data Lake, etc.
- Use them for model fine-tuning or evaluation

### ◆ **5. Deploy the Model or Flow**

- Click on **Deploy**
- Choose compute (Managed endpoint, AKS, or ACI)
- Set inference settings

After deployment, you'll get a **REST API endpoint** and **key**.

### ◆ **6. Test and Monitor**

- Use the built-in **testing console** in AI Foundry
- Monitor:

- o Latency
- o Token usage
- o Success/error rates

The screenshot shows the Microsoft Azure Machine Learning Services Overview page. The deployment status is shown as "Your deployment is complete". Deployment details include:

- Deployment name: Microsoft.MachineLearningServices
- Subscription: Azure for Students
- Resource group: yashigroup
- Start time: 4/10/2025, 1:25:14 PM
- Correlation ID: 923c2b98-24c9-4d94-95c0-4da70029716c

Next steps include a "Go to resource" button. On the right side, there are links for Cost management, Microsoft Defender for Cloud, Free Microsoft tutorials, and Work with an expert.

```

import openai
import os

# Set your API key and endpoint
openai.api_key = "0bWtimpH0k4AQMp9jilAZHKUP1tWIK4x0yvmt4b6HePf5vRRkpPjQQJ99BDACqBBLyXJ3w3AAABACOGRIEt"
openai.api_base = "https://api.openai.com/v1"

# Example to call the GPT model (like GPT-3)
response = openai.Completion.create(
    engine="text-davinci-003", # Specify the model you want to use
    prompt="Hello, how are you?", # The text you want the model to generate
    max_tokens=50
)
print(response.choices[0].text.strip())

```

The terminal output shows an error message:

```

File "C:\Users\yash\Anaconda3\lib\site-packages\openai\lib\_old_api.py", line 39, in __call__
    raise APIRemovedInV1(symbol=self._symbol)
openai.lib._old_api.APIRemovedInV1:

You tried to access openai.Completion, but this is no longer supported in openai>=1.0.0 - see the README at https://github.com/openai/openai-python for the API.
You can run `openai migrate` to automatically upgrade your codebase to use the 1.0.0 interface.
Alternatively, you can pin your installation to the old version, e.g. `pip install openai==0.28`.
A detailed migration guide is available here: https://github.com/openai/openai-python/discussions/742

```