**COURSE**

**AZ001-A Microsoft OpenAI Prompt Engineering**

**At a glance:**

* **Level:** Beginner or Intermediate
* **Product:** Microsoft Azure OpenAI and Copilot Chat
* **Role:** OpenAI Prompt Engineer
* **Language:** English
* **Course Duration:** 4 hours
* **Delivery Method:** Online (Microsoft Teams)

**Overview**

This course introduces fundamentals concepts related to prompt engineering and adopt this into day-to-day life usage to become more effective and increase efficiency with work tasks. This course is designed as a blended learning experience that combines instructor-led training with online materials on the Microsoft Learn platform ( <https://esi.microsoft.com>) . The hands-on exercises in the course are based on learn modules and learner’s are encouraged to use the content on Learn as reference materials to reinforce what they learn in the course and to explore topics in more depth. By the end of this module, you'll be able to:

* Understand the concept of prompt engineering and its role in optimizing Azure OpenAI models' performance.
* Know how to design and optimize prompts to better utilize AI models.
* Include clear instructions, request output composition, and use contextual content to improve the quality of the model's responses.

**Course Syllabus**

* Introduction to OpenAI and its advantages, terminology and benefits (15 mins)
* Prompt Engineering: Understanding and usage (45 mins)
* Prompt Engineering: Use cases and Real world examples (30 mins)
* Write effective prompts and utilize prompts in your day-to-day life use cases (30 mins)
* Hands on Lab/Excercises: Using Microsoft CoPilot Chat (1 hour)
* Bajaj Finance role or department wise specific - Use cases discussion and hands-on lab (45 mins)
* Summarisation and Next Steps – Certification on Prompt Engineering. (15 mins)



**Course Outlines:**

* Introduction to OpenAI and its advantages, terminology and benefits

1. What is difference between AI and ML
2. Introduction to OpenAI. Different platforms available similar to OpenAI
3. Microsoft OpenAI – Enteprise, secure, private and responsible AI
4. What is tokens, AI Hallucinations and limitations on OpenAI
5. Chat models v/s Reasoning Models

* Prompt Engineering: Understanding and usage

1. What is Prompt Engineering ?
2. Multiple methods of Prompt Engineering
3. Microsoft method of Prompt Engineering
4. Give direction and specify prompts
5. Provide examples and Evaluate quality

* Write effective prompts and utilize prompts in your day-to-day life use cases

1. List Generation, Sentiment Analysis
2. Writing Clear Instructions – Details, Specific, Delimiters, Specifying length
3. Question Rewriting
4. Progressive Summarization
5. Meta Prompts
6. Prompt Optimizing
7. Prompt Caching
8. Role Prompting: Coding, Role play like Programmer, Python expert, MarTech SEO content writer, IT administrator, etc.

* Prompt Engineering: Use cases and Real world examples

1. Real world use cases
2. Indian customers using Prompt Engg and showcase productivity and efficiency in day-to-day life examples.

* Hands on Lab/Excercises: Using Microsoft CoPilot Chat

1. Installing Microsoft CoPilot Chat on Laptop
2. Hands on Labs exercises using Copilot Chat Web portal/Application.

**Goal:**

Enhance **development, testing, infrastructure, data handling, and DevOps** with AI-powered automation.

✅ **Use Cases:**

* **Dev:** AI-assisted code generation, debugging, and optimization for Java, Python, C#, etc.
* **QA:** Automated test case generation, defect detection, and test report summarization.
* **Infra:** AI-driven cloud resource recommendations, infrastructure monitoring, and security alerts.
* **Data:** AI-powered data analysis, SQL query optimization, and data cleansing automation.
* **DevOps:** CI/CD pipeline automation, log analysis, and infrastructure-as-code (IaC) optimization.

📌 **Example:**

* Generate automated API test cases using Copilot.
* AI-based root cause analysis for failed deployments.