

# **(TR-103) PROMPT ENGINEERING –**

## **Training Day 6 Report:**

### **Familiarization with Google AI Studio:**

- Participants were introduced to the Google AI Studio playground, gaining hands-on experience with the interface.
- The session focused on how to create, test, and manage prompts using the platform.
- The difference between Flash and Pro models was discussed, highlighting variations in speed, performance, and use cases.

### **Benefits of Using Google AI Studio:**

- Offers a wide range of AI model options for flexible experimentation.
- Free token access allows easy exploration without usage costs.
- Supports Comparison Mode for evaluating model responses effectively.
- Vertex AI, the paid version of Google AI Studio, provides enhanced performance and is widely used by developers.
- Seamless integration with Google Drive for file storage and prompt management.
- Grounding with Google Search is supported, allowing AI outputs to be enriched with real-time, factual information.
- Streaming capability enables low-latency, real-time response generation.
- Note: Fine-Tuning was previously supported in Google AI Studio but is now deprecated.
- A discussion was held around generating multiple API keys, highlighting that users can create and manage multiple keys under different projects or accounts for better control and organization.

### **Key Features Explored in Google AI Studio:**

#### **Comparison Mode**

- Enables side-by-side comparisons of outputs from different AI models.
- Helps in selecting the most accurate, relevant, and contextually appropriate responses.

- Supports detailed evaluation of model performance, quality, and suitability for specific tasks.

## **Build Feature**

- Allows users to create custom AI workflows tailored to specific use cases.
- Participants practiced combining prompts and model configurations to build simple pipelines.
- Helped in understanding how to design workflows for desired output formats.

## **Stream (Real-Time Interaction)**

- Demonstrates the generation of real-time responses using streaming capabilities.
- Useful for interactive and dynamic applications requiring low latency.
- Participants explored how streaming can be implemented in real-time tools or conversational systems.

## **Generate Media**

- Introduced tools for AI-based creation of images, audio, and other media types.
- Participants engaged in exercises to create sample multimedia outputs.
- Showcased the platform's creative and visual potential, expanding its use cases beyond text.

## **Grounding with Google Search**

- Demonstrated how Google AI Studio supports grounding model responses using live Google Search results.
- Improves accuracy and reliability of responses by referencing real-time information.
- Valuable for tasks that require fact-checking or up-to-date content.

## **API Key Management Discussion**

- A discussion took place regarding the generation of multiple API keys in Google AI Studio.
- Participants learned that multiple keys can be generated:
  - To manage different projects or environments.
  - To monitor individual usage and apply limits separately.
  - To collaborate effectively by sharing keys with team members securely.