

(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.