Training: Google Cloud

Application Development with LLMs on Google Cloud

TRAINING GOALS:

In this course, you'll dive into the details of using Large Language Models (LLMs) in your applications. You'll start by exploring the core principles that underpin prompting LLMs. Next, you will focus on Google's latest family of models, Gemini. You'll explore the various Gemini models and their multimodal capabilities. This includes a deep dive into effective prompt design and engineering within the Agent Studio environment. Then, the course moves to application development frameworks and how to implement these concepts into your applications.

What you'll learn:

- Explore the different options available for using generative AI on Google Cloud.
- Use Agent Studio to test prompts for large language models.
- Develop LLM-powered applications using generative AI
- Apply advanced prompt engineering techniques to improve the output from LLMs
- Build a multi-turn chat application using the Gemini API and LangChain

Audience

Customers, Partners.

Products

- Gemini Enterprise Agent Platform
- Agent Platform
- Gemini Enterprise
- Agent Studio on Gemini Enterprise Agent Platform
- Gemini Enterprise Agent Platform Workbench

Compendium Centrum Edukacyjne Spółka z o.o.
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CONSPECT:

- Module 1 - Introduction to Generative AI on Google Cloud
  - Topics:
    - What is generative AI
    - Agent Platform on Google Cloud
    - Generative AI options on Google Cloud
    - Introduction to course use case
  - Objectives:
    - Explore the different options available for using generative AI on Google Cloud.
- Module 2 - Agent Studio
  - Topics:
    - Introduction to Agent Studio
    - Designing and testing prompts
    - Data governance in Agent Studio
  - Objectives:
    - Use Agent Studio to test prompts for large language models.
- Module 3 - Generative AI Fundamentals
  - Topics:
    - Introduction to grounding
    - Integrating the Agent Platform Gemini APIs
    - Chat, memory and grounding
    - Search principles
  - Objectives:
    - Develop LLM-powered applications using generative AI
  - Activities:
    - Lab: Getting Started with LangChain + Agent Platform Gemini API
- Module 4 - Prompt Engineering
  - Topics:
    - Review of few-shot prompting
    - Chain-of-thought prompting and thinking budgets
    - Meta prompting, multi-step, and panel prompts
    - RAG and ReAct
  - Objectives:
    - Apply advanced prompt engineering techniques to improve the output from LLMs
- Module 5 - Creating Custom Chat Applications with Agent Platform Gemini API

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- Topics:
  - LangChain for chatbots
  - ADK for chatbots
  - Chat retrieval
- Objectives
  - Build a multi-turn chat application using the Gemini API and LangChain

REQUIREMENTS:

Completion of "Introduction to Developer Efficiency on Google Cloud" or equivalent knowledge.

Difficulty level



CERTIFICATE:

The participants will obtain certificates signed by Google Cloud (course completion).

TRAINER:

Authorized Google Cloud Trainer

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