Training: Google Cloud
Introduction to Developer Efficiency with Gemini on Google Cloud

TRAINING GOALS:

Generative AI is now at the center of transforming how software is designed, built, run, and managed. For developers, generative AI is a powerful tool for making coding more efficient and using APIs, such as the PaLM API, within their applications.

In this course, you are introduced to how generative AI can be used to make developers more efficient at writing code and implementing new features into applications. Along the way, you learn principles of prompt design and how to explore the different models available on Google Cloud by using Vertex AI Model Garden.

What you'll learn:

- Understand the efficiency challenges in a developer workflow and how generative AI can make developers more efficient.
- Use Duet AI in Cloud Code to more efficiently write code for your applications.
- Use Duet AI in Google Cloud to quickly summarize your application logs.
- Explain the fundamentals of prompt design when using Duet AI in Cloud Code.
- Integrate the PaLM API in your applications to use generative AI.
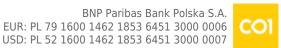- Explore available models available in Vertex AI Model Garden.

Audience

Application developers and others who wish to understand how generative AI on Google Cloud can make development more efficient.

CONSPECT:

- Module 1 - Developer Efficiency on Google Cloud
  - Topics:
    - Developer workflows and efficiency challenges
    - Developer efficiency on Google Cloud
    - AI-powered developer tools on Google Cloud

- Developer workflows with LLMs

  - Objectives:
    - Describe efficiency challenges that developers face.
    - Understand how AI-powered tools on Google Cloud can improve developer efficiency.
    - Describe developer workflows when using large language models (LLMs).

- Module 2 - Using Gemini Throughout the Development Lifecycle
  - Topics:
    - Introduction to Gemini for Google Cloud
    - Cloud Code and Gemini Code Assist
    - Generating and completing code by using Gemini Code Assist
    - Understanding logs using Gemini

  - Objectives:
    - Use Gemini Code in Cloud Code to more efficiently write code for your applications.
    - Use Gemini in Google Cloud to quickly summarize your application logs.

  - Activities:
    - Lab: Using Gemini Throughout the Software Development Lifecycle

- Module 3 -Prompt Design for Gemini
  - Topics:
    - Why prompt design is important
    - General prompt design tips
    - Prompt design for Duet AI

  - Objectives:
    - Explain the fundamentals of prompt design when using Gemini Code Assist.

  - Activities:
    - Lab: Prompt Design for Gemini Code Assist

- Module 4 - Leveraging Codey in Developer Workflows
  - Topics:
    - Vertex AI Gemini and PaLM API
    - Code generation and completion with Codey
    - Vertex AI Studio
    - Using the Codey API in your code
    - Fine-tuning Codey for specific use cases

  - Objectives:
    - Use the Vertex AI Gemini API, PaLM API and Codey for code generation
    - Integrate Codey into applications by using the API

- - - Fine-tune Codey for specific use cases
  - - Activities:
    - - Lab: Leveraging Codey in Your Applications
- - Module 5 - Discovering Model APIs using Vertex AI Model Garden
  - - Topics:
    - - Vertex AI Model Garden
    - - Models types and solutions
    - - Model Registry and model deployment
    - - Fine-tuning models
  - - Objectives:
    - - Understand the role of Vertex AI Model Garden.
    - - Explore models available in Vertex AI Model Garden.
  - - Activities:
    - - Lab: Exploring Vertex AI Model Garden

REQUIREMENTS:

To get the most of out of this course, participants should have:

- - Have completed Google Cloud Fundamentals: Core Infrastructure or have equivalent experience.

Difficulty level

CERTIFICATE:

The participants will obtain certificates signed by Google Cloud

TRAINER:

Authorized Google Cloud Trainer