

Introduction to Developer Efficiency on Google Cloud

7h

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

Target audience

Customers interested in how generative AI can be used to make developers more efficient at writing code and implementing new features into applications.

Prerequisites

[Google Cloud Fundamentals: Core Infrastructure](#) or equivalent Google Cloud experience.

Course Outline

Module 01: 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 02: Using Duet AI Throughout the Development Lifecycle

Topics

- Introduction to Duet AI
- Cloud Code and Duet AI
- Generating and completing code by using Duet AI
- Understanding logs using Duet AI

Objectives

- 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.

Activities

- Lab: Using Duet AI Throughout the Software Development Lifecycle

Module 03: Prompt Design for Duet AI

- Why prompt design is important
- General prompt design tips
- Prompt design for Duet AI

Objectives

- Explain the fundamentals of prompt design when using Duet AI in Cloud Code.

Activities

- Lab: Prompt Design for Duet AI in Cloud Code

Module 04: Leveraging Codey in Developer Workflows

Topics

- Vertex AI 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 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 05: 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