

Introduction to Developer Efficiency on Google Cloud

In this course, you are introduced to how generative AI can be used to make developers more efficient at writing code with Gemini Code Assist and implementing new features into applications. You will explore how Gemini Cloud Assist can help you to architect your applications and investigate issues that arise. Finally, you will put everything together into an end-to-end workflow.

**DURATION**

1 day

**LEVEL**

100 - Introductory

**FORMAT**

Instructor-led

What you'll learn

- Use Gemini Code Assist with tools and agents
- Understand the features of Gemini Cloud Assist
- Create an end-to-end developer workflow using Gemini Code Assist and Gemini Cloud Assist

Overview	5 modules · 4 labs · 4 classroom activities
Who this course is for	• Application developers who wish to use Gemini Code Assist and Gemini Cloud Assist to support application development workflows
Products	• Gemini Code Assist • Gemini Cloud Assist • Agent Platform • Cloud Workstations • Code OSS for Cloud Workstations • Gemini Enterprise • Agent Studio on Gemini Enterprise Agent Platform • Gemini
Prerequisites	• Basic Google Cloud knowledge for application development

Module 01

Developer Efficiency on Google Cloud

Topics	• Developer Workflows, SDLC, DORA, and Efficiency Challenges • Generative AI for Developer Efficiency • AI-powered Developer Tools on Google Cloud • Developer Workflows with LLMs
Objectives	• Understand developer workflows, SDLC, DORA, and efficiency challenges • Improve developer efficiency in Google Cloud with generative AI • Explore the AI-powered developer tools on Google Cloud • Understand developer workflows with Large Language Models (LLM)

Module 02

Gemini Code Assist

Topics

- Introduction to Gemini
- Gemini Code Assist
- Generating and Completing Code Using Gemini
- Prompting Best Practices

Objectives

- Understand the role of Gemini
- Learn how to set up Google Cloud Code and Code Assist in your IDE
- Generate and complete code with Gemini
- Use Gemini with the Cloud Code IDE extension

Activities

- Lab: Getting Started with Gemini Code Assist
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Module 03

Expanding Code Assist Usage

Topics

- Grounding on Your Codebase
- Code Assist Tools
- Code Assist Agents
- Additional Code Assist Capabilities

Objectives

- Ground on your codebase
- Extend capabilities with external services
- Automate complex development tasks with Code Assist agents
- Utilize advanced Code Assist capabilities

Activities

- Lab: Using Gemini and Tools in Code Assist to Develop a CI/CD Pipeline
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Module 04

Gemini Cloud Assist

Topics

- Gemini Cloud Assist Capabilities
- Designing with Gemini Cloud Assist
- Investigating Issues with Gemini Cloud Assist

Objectives

- Leverage the Power of Gemini in Cloud Operations
- Utilize Gemini Cloud Assist's Application Design Center (ADC) for designing and building cloud applications
- Optimize costs with Gemini Cloud Assist
- Investigate and diagnose issues with Gemini Cloud Assist

Module 05

Putting it All Together

Topics

- Revisiting Example Use Case
- Overall Approach Using Gemini

Objectives

- Use Gemini Code Assist to perform design and initial code generation
- Create infrastructure and deploy using Gemini Cloud Assist
- Perform operations and optimization using Gemini Cloud Assist