

Introduction to Google Cloud Application Developer

Course Overview

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: 02 days / 16 hours

Level: Foundation

Prerequisites: Basic Google Cloud knowledge for application development.

Course Outcome: This course is part of **Professional Cloud Architect** and **Professional Data Engineer** Certifications.

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Generative AI Engineering: From Prompts to RAG Systems

- Introduction to Gen AI applications
- Prompt engineering
- Retrieval Augmented Generation
- Lab
 - Get started with Agent Studio
 - Build an LLM and RAG-based Chat Application with AlloyDB and Agent Platform

Gemini for Application Developers

- Introduction to Gemini
- Introduction to Gemini Enterprise
- Software development with Gemini (end-to-end SDLC)
- Lab
 - Demo: Introduction to Gemini Enterprise
 - Demo: Develop an app with Gemini

Accelerating Software Development with Gemini Code Assist

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- Gemini Code Assist for new and experienced developers
- Gemini Code Assist subscriptions and license management
- Adding roles in Gemini Code Assist
- Gemini Code Assist IDE plugins

- Gemini Code Assist tools for Developers
- Lab
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Automated Cloud Troubleshooting with Gemini Cloud Assist

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- Gemini Cloud Assist investigations - Core concepts
- Create and review investigations
- Investigate and diagnose issues
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 - Investigate and Diagnose Issues with Gemini Cloud Assist

AI-Driven Software Engineering with Gemini CLI & MCP

- Lab
 - Build a Coding Assistant with Gemini CLI MCP and Go
 - Kickstarting Application Development with Gemini Code Assist: Challenge Lab
 - Using Gemini Throughout the Software Development Lifecycle