



Gemini Code Assist Essentials

Course description

Learn how to accelerate software development with Gemini Code Assist, Google's AI-powered coding companion. Explore intelligent code completion, code generation, debugging, code migration, code review, and productivity optimization techniques that help developers write better code faster while improving software quality and delivery efficiency.

Participants will learn how Gemini Code Assist supports code generation, debugging, testing, optimization, migration, and code review activities across the software development lifecycle (SDLC). The course also explores security, privacy, intellectual property considerations, Responsible AI principles, and techniques for measuring developer productivity improvements using AI-powered coding tools. Through demonstrations and discussions, learners gain practical insights into maximizing the value of Gemini Code Assist within development teams.

- Course level: Intermediate
- Duration: 1 day

Activities

This course includes instructor-led training, live product demonstrations, interactive discussions, scenario-based learning, developer productivity workshops, ai adoption strategy discussions, knowledge checks, and reflection and assessment activities to reinforce learning.

Course objectives

In this course, you will learn to:

- Explain the purpose and capabilities of Gemini Code Assist.
- Identify common software development challenges addressed by AI-assisted coding.
- Use Gemini Code Assist for code generation and explanation.
- Apply AI-assisted debugging and testing techniques.
- Leverage Gemini Code Assist for code migration and optimization.
- Improve code review workflows using AI assistance.
- Understand security, privacy, and intellectual property considerations.
- Apply Responsible AI principles in software development.
- Measure developer productivity improvements using AI-assisted workflows.

Intended audience

This course is intended for:

- Software Developers
- Software Engineers
- Application Developers
- Full Stack Developers
- Backend Developers
- Frontend Developers
- DevOps Engineers
- Engineering Team Leads
- Technical Architects
- Anyone involved in software development workflows

Prerequisites

We recommend that attendees of this course have:

- Software development experience.
- Familiarity with cloud computing concepts.

- Familiarity with at least one IDE is recommended.
- Basic Git and version control knowledge is beneficial.

Products covered

- Gemini Code Assist
- Cloud Shell Editor

Course outline

Module 01 - Introduction to Gemini Code Assist

- Welcome and Course Overview
- Developer Toil and Its Impact
- Gemini Code Assist Value and Features
- Gemini Capabilities and Editions
- Benefits and Concerns of AI in Development

Module 02 - Practical Application: Key Features in Action

- Accelerating New Feature Development
- Debugging with AI Assistance
- Code Migration and Optimization
- Code Review on Pull Requests

Module 03 - Security, Privacy, and Responsible AI

- Privacy and Security Commitments
- Protecting Intellectual Property
- License Attribution and Compliance
- Responsible AI Principles

Module 04 - Measuring Impact and What's Next

- The Four Key Metrics (DORA)
- Impact on Developer Productivity
- The AI Adoption Journey
- Measuring Adoption and Impact
- Next Steps and Resources

Module 05 - Gemini Code Assist: Quiz and Reflection

- Review of Core Concepts

Certification details

Participants receive a course completion certificate upon successfully attending the training program.

FAQs

Who should attend this course?

This course is designed for software developers, programmers, software engineers, and anyone looking to improve software development productivity using AI-assisted coding tools.

Is prior experience with Gemini Code Assist required?

No. The course introduces Gemini Code Assist from the fundamentals and demonstrates practical use cases throughout the software development lifecycle.

What coding tasks can Gemini Code Assist help with?

Gemini Code Assist can assist with code generation, debugging, testing, code explanation, optimization, migration, and code review activities.

Does the course cover security and privacy?

Yes. Privacy, security, intellectual property protection, license compliance, and Responsible AI practices are key topics within the course.

What are DORA metrics?

DORA (DevOps Research and Assessment) metrics are industry-standard measures used to evaluate software delivery performance and developer productivity.

Is this a hands-on course?

The course includes live demonstrations, interactive discussions, and real-world software development scenarios.

How long is the course?

The course is delivered in a 3-hour instructor-led format.

What business benefits can organizations expect?

Organizations can improve developer productivity, reduce development effort, accelerate software delivery, enhance code quality, improve developer satisfaction, and strengthen software engineering efficiency through AI-assisted development practices.