

Gemini Code Assist Essentials

Key information

Course code	Gemini Code Assist Essentials
Course version	1.0
Course title	Gemini Code Assist Essentials
Description	<p>This course provides a comprehensive overview of Gemini Code Assist, an AI-powered tool designed to significantly enhance software development workflows. Participants will learn how Gemini Code Assist can improve coding efficiency, reduce errors, and accelerate the software delivery lifecycle.</p> <p>The course will cover core features such as intelligent code completion, advanced code generation, and powerful smart actions, along with best practices for integrating Gemini Code Assist into various development environments.</p> <p>Fundamental concepts in AI-assisted coding and software development lifecycle optimization will be explored through practical demonstrations and real-world application scenarios.</p>
What you'll learn	<ul style="list-style-type: none">Explain what Gemini Code Assist is, its key features, and its value proposition to developers.Apply Gemini Code Assist for efficient code generation, explanation, testing, and debugging.Recognize security, privacy, and intellectual property considerations when using AI-powered coding tools.Measure and improve developer productivity with Gemini Code Assist.Outline practical next steps for continued learning and application.
Duration	3 hours
Level	Intermediate

Format	Instructor-led
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Content overview

Who this course is for	Software developers, programmers, software engineers, and anyone involved in writing code who wants to improve their productivity and code quality.
Total modules	5
Total videos	0
Total Labs	0
Total classroom activities	1 Poll 4 Discussions
Prerequisites	<ul style="list-style-type: none">• Software development• Familiarity with cloud concepts <p><i>Helpful to be familiar with:</i></p> <ul style="list-style-type: none">• At least one IDE• Basic Git/version control knowledge
Products	Gemini Code Assist Cloud Shell Editor
Not covered	In-depth theoretical explanations of underlying Google AI models or advanced machine learning concepts. The course focuses on practical application and integration of Gemini Code Assist within the software development lifecycle.

Content breakdown

Module 1 title	Introduction to Gemini Code Assist
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Module 1 topics	<ol style="list-style-type: none"> 1. Welcome and Course Overview 2. Developer Toil and its Impact 3. Gemini Code Assist Value & Features 4. Gemini's Capabilities and Editions 5. Benefits & Concerns of AI in Development
Module 1 objectives	<ul style="list-style-type: none"> • Identify common modern-day developer challenges that AI-assisted coding addresses. • Explain what Gemini Code Assist is and its core value proposition for modern developers. • Explain the key features of Gemini Code Assist. • Engage in a discussion about the benefits and concerns of using AI in software development.
Module 1 activities	2 discussions, 1 poll
Module 2 title	Practical Application: Key Features in Action
Module 2 topics	<ol style="list-style-type: none"> 1. Demo 1: Accelerating New Feature Development 2. Demo 2: Debugging with AI Assistance 3. Demo 3: Code Migration & Optimization 4. Demo 4: Code Review on a Pull Request
Module 2 objectives	<ul style="list-style-type: none"> • Apply Gemini Code Assist for various coding tasks through live demonstrations. • Experience the collaborative nature of Gemini Code Assist across the SDLC.
Module 2 activities	4 demos
Module 3 title	Security, Privacy, and Responsible AI
Module 3 topics	<ol style="list-style-type: none"> 1. Privacy & Security Commitments 2. Protecting Intellectual Property 3. License Attribution & Compliance 4. Responsible AI Principles
Module 3 objectives	<ul style="list-style-type: none"> • Articulate Google's commitment to data privacy and security with Gemini Code Assist. • Explain how Gemini Code Assist protects intellectual property. • Describe the principles of Responsible AI as applied to coding tools.
Module 3 activities	1 discussion
Module 4 title	Measuring Impact & What's Next
Module 4 topics	<ol style="list-style-type: none"> 1. The Four Key Metrics (DORA) 2. Impact on Developer Productivity 3. The AI Adoption Journey 4. Measuring Adoption & Impact 5. Next Steps & Resources

Module 4 objectives	<ul style="list-style-type: none">• Recognize how organizations can measure the adoption and impact of Gemini Code Assist.• Outline practical next steps for continued learning and application.
Module 4 activities	1 discussion
Module 5 title	Gemini Code Assist: Quiz/Reflection
Module 5 topic	1. Review of Core Concepts
Module 5 objective	<ul style="list-style-type: none">• Evaluate understanding of core course concepts through scenario-based questions.
Module 5 activities	5 scenario-based multiple choice questions