GitHub Copilot Essentials

Class Duration

7 hours of live training delivered over 1-2 days to accommodate your scheduling needs

Student Prerequisites

- Basic understanding of programming concepts
- Experience with a programming language such as Java, Python, JavaScript/TypeScript, or C#

Target Audience

Designed for professional software developers, tech leads, and engineering managers who want measurable productivity gains from AI coding tools. It is equally relevant to platform, QA, and DevEx teams responsible for standards and adoption. Learning and development leaders will find clear guidance to roll out GitHub Copilot safely and at scale, with attention to privacy, security, and public code matches. Ideal for organizations seeking to improve delivery speed, code quality, and developer experience using GitHub Copilot in real-world projects.

Description

This live, hands-on course shows software teams how to turn GitHub Copilot into a reliable engineering partner—from setup and model selection to daily development workflows. Participants learn how to install Copilot in their IDE, use chat (Ask, Edit, Agent) and inline suggestions, and bring richer context via extensions, tools, and MCP servers. We cover custom chat modes, instructions, and prompt files that standardize how teams work, plus techniques to generate code and unit tests, refactor and fix defects, and document intent. You'll also learn how to drive faster, safer reviews with Copilot-assisted code reviews and commit messages, and how to address public code matches, privacy, and security. The result is a practical, repeatable approach to shipping high-quality software faster and at lower cost.

To discuss this course and customizations:
Call: 434-509-5680 or Email: sales@cloudcontraptions.com

Learning Outcomes

- Configure GitHub Copilot end-to-end: select a subscription plan, sign up, and install in Visual Studio Code or supported IDEs.
- Choose the right Copilot model and enable extensions, tools, and MCP servers to bring relevant context into suggestions and chat.
- Use code suggestions and chat effectively (Ask, Edit, Agent) to accelerate day-to-day development tasks.
- Design custom chat modes, write durable instructions, and organize prompt files for repeatable team workflows.
- Apply prompt engineering to translate human language to code and code-to-code transformations across languages.
- Generate new features with unit tests, and fix or improve existing code while documenting design decisions.
- Streamline reviews by prompting Copilot for targeted code reviews and high-quality commit messages that reflect diffs.
- Mitigate risk by interpreting public code matches and applying privacy and security best practices for compliant usage.

Training Materials

Comprehensive courseware is distributed online at the start of class. All students receive a downloadable MP4 recording of the training.

Software Requirements

Student may choose to simply watch the instructor or follow along with the instructor. If students choose to follow along, they will need a GitHub Copilot subscription, Visual Studio Code and the GitHub Copilot extension.

Training Topics

Overview

- Many Copilots, but only one GitHub Copilot
- GitHub Copilot Features
- Subscription Plans
- GitHub Copilot Extensions
- Code Suggestions and Chat
- Tools and MCP Servers
- Public Code Matches

- Privacy and Security

GitHub Copilot Setup & Usage
- Sign up for GitHub and GitHub Copilot Free
- Install GitHub Copilot
- Explore GitHub Copilot Features
- Code Suggestions
- Chat: Ask, Edit, Agent
- Model Selection
- Custom Chat Modes
- Instructions
- Prompt Files
- Code Reviews
- Commit Messages

Engineer Software with GitHub Copilot
- GitHub Copilot Suggestions
- GitHub Copilot and Context
- Human Language to Computer Language
- Programming Language to Programming Language
- Generate Code & Unit Tests
- Fix & Improve Code
- Discuss & Document Code

GitHub Copilot Chat and Prompt Engineering
- Chat with GitHub Copilot
- Prompt Engineering
- GitHub Copilot Chat and Prompt Engineering
- GitHub Copilot Chat and Prompt Engineering in Practice

Workshop
- Hands-on exercises
- Q&A session