Codex for Developers

- 4 Hours Course
- Hands-on and Lecture

Course Overview

This course develops advanced ChatGPT Codex workflows for technical professionals who need to plan, guide, verify, and refine AI-assisted development work with greater control. You will use Codex across the full AI-native software development lifecycle while combining project planning, structured prompting, MCP documentation access, and durable project guidance.

The course begins with Codex orientation and MCP usage, then moves into the 7-phase software development workflow and code-oriented prompting. You will practice using AI to define project scope, requirements, user stories, implementation roadmaps, and review criteria before moving into guided code generation with AGENTS.md and prepared project context.

By the end of the course, you will be able to use Codex as a project-aware development partner across planning, implementation, review, testing, refinement, and handoff. You will have practiced building better AI-assisted workflows by combining MCP, structured prompts, project planning documents, AGENTS.md guidance, terminal verification, and iterative code refinement.

Who Should Attend

- Software Developers (Suggested)
- Technical Leads & Engineers (Suggested)
- DevOps / Systems Engineers (Suggested)

What You'll Learn

- Configure ChatGPT Codex for advanced project-based development workflows
- Explain how MCP extends Codex with external documentation and tool access
- Use the 7-phase AI-native SDLC to structure planning, implementation, review, testing, refinement, and handoff
- Apply code-oriented prompting techniques to produce scoped, verifiable coding results
- Develop project plans, scope documents, user stories, requirements, and implementation roadmaps with AI assistance
- Create and refine AGENTS.md guidance to control project behavior, boundaries, verification, and documentation expectations
- Use prepared project guidance and planning documents to generate more reliable Codex-assisted code
- Build, review, test, refine, and document a guided coding project through a complete AI-assisted development workflow

Outline

1. Codex CLI Power User Setup & config.toml

- Lecture: Codex CLI Power User Setup & config.toml

- Lecture + Lab: Codex CLI Power User Setup & config.toml

2. AGENTS.md, SPEC.md, and Context Engineering
   - Lecture: AGENTS.md, SPEC.md, and Context Engineering
   - Lecture + Lab: AGENTS.md, SPEC.md, and Context Engineering

3. Advanced Agentic Workflows & Multi-Step Execution
   - Lecture: Advanced Agentic Workflows & Multi-Step Execution
   - Lecture + Lab: Advanced Agentic Workflows & Multi-Step Execution

4. Failure Modes, Drift, and Recovery Techniques
   - Lecture: Failure Modes, Drift, and Recovery Techniques
   - Lecture + Lab: Failure Modes, Drift, and Recovery Techniques

5. AI-Safe Git Workflows & Reviewing AI Changes
   - Lecture: AI-Safe Git Workflows & Reviewing AI Changes
   - Lecture + Lab: AI-Safe Git Workflows & Reviewing AI Changes

6. How Expert Users Actually Use Codex
   - Lecture: How Expert Users Actually Use Codex
   - Lecture + Lab: How Expert Users Actually Use Codex

7. MCP, Tool Integrations, and External Systems
   - Lecture: MCP, Tool Integrations, and External Systems

Prerequisites

- Codex already installed
- Codex is licensed
- Students are not firewalled from GitHub and therefore able to download exercises