



AI+ Vibe Coding Practitioner™

Certification



Executive Summary:

The AI+ Vibe Coding Practitioner certification equips learners with essential skills to thrive in the evolving world of artificial intelligence and coding. Designed for beginners and professionals seeking foundational knowledge, the program emphasizes core AI concepts, coding practices, and ethical applications. Participants gain hands-on experience with AI tools, algorithms, and problem-solving techniques to build practical solutions. The certification fosters critical thinking, creativity, and collaboration, ensuring graduates are prepared for future opportunities in AI-driven industries. By completing this program, learners demonstrate their readiness to contribute effectively to projects that combine innovation, technical skills, and responsible AI development.

Prerequisites

- **Basic Computer Skills** – Comfortable with operating systems and files.
- **Mathematics Fundamentals** – Understanding of algebra and basic statistics.
- **Logical Thinking** – Ability to approach problems step by step.
- **Programming Curiosity** – Interest in learning coding from scratch.
- **English Proficiency** – Ability to follow technical instructions clearly.

Exam Blueprint

Number
of Questions

50

Passing
Score

35/50 or 70%

Duration

90 Minutes

Format

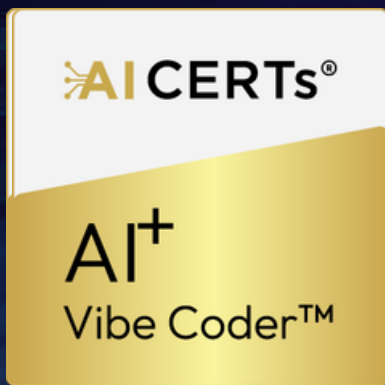
**Online via AI
Proctoring platform**

Question Type

**Multiple Choice/Multiple
Response**

Exam Overview

Module	Weight
Introduction to Vibe Coding & AI Tools	15%
Prompting for Code – Basics & Best Practices	15%
Debugging & Testing via AI	15%
Building a Simple Full-Stack App with Prompts	20%
Code Ethics, Security, and AI Limits	20%
Capstone Project – Prompt-Driven App	15%
	100%



Certification Modules

Module 1

Introduction to Vibe Coding & AI Tools

1.1 What is Vibe Coding?

1.2 Evolution of AI in Software Development – Low Code vs No Code vs Vibe Coding

1.3 Overview of Common AI Coding Tools by Functionality

1.4 SDLC for a Vibe Coding Product

1.5 Hands-on Lab: Familiarizing Learners with Multiple AI Coding Tools

1.6 Case Studies

Module 2

Prompting for Code – Basics & Best Practices

2.1 Anatomy of a Good Prompt

2.2 Prompt Types – Instructive, Descriptive, Iterative

2.3 Prompting Patterns – Zero-Shot, Few-Shot, Chain-of-Thought

2.4 Hands-on Lab: Practice Zero-Shot, Few-Shot, and Chain-of-Thought Prompting

2.5 Use-Case 1: Creating a Python Calculator

2.6 Use-Case 2: Optimizing AI-generated Code Using Different Prompt Types

Module 3

Debugging & Testing via AI

3.1 Reviewing and Refining AI-generated Code

3.2 Prompting for Bug Fixes and Test Coverage

3.3 Using AI-generated Unit Testing

3.4 Detecting Hallucinations and Unsafe Code

3.5 Hands-on Lab: AI-Assisted Debugging and Unit Testing

3.6 Activity Section

Module 4

Building a Simple Full-Stack App with Prompts

4.1 Planning the App: Frontend + Backend

4.2 Using IDEs and Code Generators to Scaffold Code

4.3 Connecting Components Using Natural Language

4.4 Deploying and Testing the MVP in Simulated Environment

4.5 Hands-on Lab: Building and Connecting the Frontend and Backend for Contact Form Submission

4.6 Hands-on Lab: Building a Standalone Desktop Calculator Application Using Tkinter

4.7 Hands-on Assignment 1: Task Management System - Full-Stack Development Using Prompts

Module 5

Code Ethics, Security, and AI Limits

5.1 AI Limitations and Biases

5.2 Prompt Injection and Mitigation Strategies

5.3 Data Privacy and Secure Coding

5.4 Responsible Use of AI in Production

5.5 Hands-on Lab: Build Awareness of AI Limitations and Responsible Practices

Module 6

Capstone Project – Prompt-Driven App

6.1 Apply All Learned Skills in a Real-World Project

6.2 Collaborate and Iterate Using AI Tools

6.3 Demonstrate End-to-End Development Using Prompts

6.4 Capstone Project Use Case: AI-Powered To-Do List Application

6.5 Capstone Project Use Case: AI-Powered Note-Taking Desktop App

6.6 Assignments

Certification Outcome

Learners completing the AI + Vibe Coding Practitioner course gain confidence in their ability to use AI tools to design, debug, and build applications through natural language prompts. Participants can integrate frontend and backend components, apply secure coding practices, and recognize the ethical and practical limitations of AI. Hands-on labs and case studies strengthen their skills in problem-solving, prompt engineering, and iterative development. By the end of the course, learners are equipped to responsibly apply AI-driven coding in real-world projects, create functional MVPs, and showcase portfolio-ready applications that reflect their capabilities as AI-empowered developers.



Market Insight

The growing demand for AI-assisted development highlights the need for professionals who can merge coding fundamentals with AI tools. Organizations increasingly seek talent capable of accelerating development, ensuring security, and addressing ethical challenges in real-world applications.



Value Proposition

The AI + Vibe Coding Practitioner certification equips learners with practical, industry-ready skills in AI-driven coding, prompt engineering, and secure development. It empowers participants to create functional MVPs, strengthening their portfolios and positioning them as valuable contributors in modern software development.



Additional Features

The program blends case studies, hands-on labs, and real-world capstone projects, offering learners practical exposure. Participants benefit from structured guidance, ethical coding practices, and iterative development exercises, ensuring readiness to apply AI tools effectively across diverse coding environments.



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