



SHERAZ AKHTAR

Course Outline

■ Your Journey to Confident Java Coding

Welcome to "Code That Works"! This immersive course is designed for aspiring developers and tech enthusiasts who want to build real programming skills and create projects that actually work. We'll guide you step-by-step through the fundamentals of Java, focusing on hands-on application and building a portfolio from day one.

No prior coding experience is needed – just your curiosity and commitment!

■ What You'll Gain From "Code That Works":

- Hands-On Mastery: Move beyond theory to build actual Java programs and projects.
- **Problem-Solving Power**: Learn how to think like a programmer and debug your own code.
- **Project Portfolio**: Create several functional console-based projects to showcase your new skills to employers.
- Confidence to Build: Gain the self-assurance to tackle new coding challenges and continue your learning journey.
- **Mentorship & Support**: Direct guidance from an experienced instructor and a supportive learning community.

■ Your Learning Journey: Course Modules

Module 1: Your First Lines of Code & Setting Up

What you'll learn: How programming works, setting up your essential coding playground (Java & your coding software), and writing your very first Java programs.

Project you'll build: A "Personalized Greeter" – make your computer say hello to the world, and to you!

Module 2: Storing & Manipulating Data

What you'll learn: How computers store information (variables, data types) and perform basic math. You'll also learn how to get input from the user.

Project you'll build: A "Basic Calculator" – capable of performing simple operations based on user input.

Module 3: Making Your Code Smart (Decisions & Loops)

What you'll learn: How to make your programs make decisions (if/else statements), handle multiple choices (switch statements), and repeat tasks efficiently (for and while loops).

Project you'll build: A fun "Number Guessing Game" – where your program clues the user in on their guess.

Module 4: Building Reusable Blocks (Functions/Methods)

What you'll learn: How to organize your code into reusable "methods" (functions), making your programs cleaner, more powerful, and easier to manage.

Project you'll build: An "Enhanced Calculator" – using methods to manage its different operations more effectively.

Module 5: Object-Oriented Power (Introduction to OOP)

What you'll learn: Dive into the world of Object-Oriented Programming (OOP) – a powerful way to design programs using "objects" (like digital robots!) that have properties and behaviors.

Project you'll build: A "Simple Student/Product Management System" – using custom objects to organize data efficiently.

Module 6: Managing Collections of Data

What you'll learn: How to handle lists of information using "arrays" and dynamic "ArrayLists." You'll learn how to store and access multiple items, including your custom objects.

Project you'll build: A "Student Grade Analyzer" – where you'll store and analyze grades for multiple students using collections.

Module 7: Finding & Fixing Problems (Errors & Debugging)

What you'll learn: A critical skill! Understand common programming errors, how to read error messages, and how to use powerful debugging tools in your software to find and fix bugs like a pro.

Project you'll build: A "Basic Command-Line Contact List" – consolidating all your learned skills, where debugging them will be part of the fun challenge!

Module 8: Your Next Steps & Future in Tech

What you'll learn: A celebration of your achievements, a recap of your new skills, and a roadmap for continuing your coding journey into more advanced Java topics and specialized fields.

Project you'll build: Walk away with your completed projects and a well optimized LinkedIn profile!

■ How You'll Learn:

- **Interactive Live Sessions**: Join our instructor for engaging 1-hour sessions (2-3 times per week) with live coding, Q&A, and guided practice.
- **Hands-On "DIY" Activities**: Weekly coding exercises and challenges to immediately apply what you learn.
- **Project-Based Learning**: Build a working project in almost every module, seeing your skills come to life.
- **Personalized Support**: Direct access to your instructor and a supportive community for questions and collaboration.

Ready to Make Your Code Work? Join "Code That Works" and start building your future today!

Register Now