

Software Development

A comprehensive software engineering program covering Object-Oriented Programming, Data Structures & Algorithms, Web & Mobile Architectures, Database Systems, Git version control, and CI/CD deployment.

Duration 6 Months	Training Mode Offline Classroom Training	Certification Industry Certificate	Practical Labs 100% Hands-on
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Tools & Tech: Python • Java / C# • JavaScript • SQL • Docker • Git • Postman

Detailed Course Curriculum & Modules

MODULE 01 Computer Science & Programming Fundamentals • Problem Solving & Algorithmic Thinking • Variables, Control Structures & Recursion • Data Structures: Arrays, Lists, Stacks, Queues & Trees • Sorting & Searching Algorithms	MODULE 02 Object-Oriented Programming (OOP) • Encapsulation, Inheritance, Polymorphism & Abstraction • Design Patterns (Factory, Singleton, Observer) • Solid Principles & Clean Architecture • Code Refactoring & Error Handling
MODULE 03 Databases & Backend Systems • Relational Database Design & Normalization • Complex SQL Queries, Joins & Indexing • ORM Frameworks & Data Access Layers • RESTful API Development & JSON Parsing	MODULE 04 DevOps, Git & Deployment • Git Workflow: Branching, Merging & Pull Requests • Docker Containerization Fundamentals • Continuous Integration (CI/CD) Basics • Cloud Deployment & Server Administration
MODULE 05 Practical Projects • Full-Stack Inventory Management System • RESTful Microservice API with Authentication • Enterprise Database Optimization & Deployment	

Practical Projects & Industry Capstones

- Industry Capstone Project
- Real World Case Studies

■ Industry Certification Authorized certificate verified globally via online portal.	■ 100% Placement Support Resume review, mock interviews, and recruiter connections.	■ Lab Access & Mentorship Dedicated workstation lab hours with expert guidance.
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