

TRACK 01: SOFTWARE DEVELOPMENT TRACK

Duration: 6 Months (Cohort Based) | Batch Limit: 10 Students | Fee: Rs 30,000 (Rs 15,000 Upfront + Rs 15,000 Month 3)

PROGRAMME OVERVIEW

An intensive, project-driven engineering track designed to transform students into production-ready software engineers. Covers programming core fundamentals, modern web architectures, relational database modeling, REST API engineering, and Git workflows.

CURRICULUM SYLLABUS

- Module 1: Programming Foundations & Algorithmic Thinking

Data structures, memory and pointer concepts, OOP design patterns, clean code principles, and debugging techniques.

- Module 2: Relational Databases & Schema Design

PostgreSQL, MySQL, SQL querying, indexing, foreign keys, migrations, transactions, and performance tuning.

- Module 3: Full-Stack Web Architecture & REST APIs

Backend web frameworks, request-response lifecycles, authentication (JWT/OAuth), RESTful API design, and middleware.

- Module 4: Frontend Integration & Interactive UIs

Modern HTML5/CSS3, JavaScript/TypeScript, reactive UI components, DOM management, and asynchronous data fetching.

- Module 5: Systems Tooling, Testing & DevOps Basics

Git branching strategies, unit testing with automated suites, Docker containerization, Nginx reverse proxy, and cloud deployment.

- Module 6: Capstone Production Project

End-to-end planning, architectural RFC, multi-tenant database design, automated test suite, and live deployment on cloud infrastructure.

CAREER OUTCOMES & PORTFOLIO DELIVERABLES

- * Production-ready GitHub portfolio with 2 full-stack projects.
- * Strong command over SQL schemas, API architecture, and automated tests.
- * Prepared for Junior/Mid Software Engineer and Full-Stack Developer roles.

ADMISSIONS & ENROLLMENT

Admissions Portal: empever.com/pages/contact.html | Official Desk: info@empever.com

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