innovate with ajay

AI CLASSROOM COURSES · CAREER TRACK

Full Stack Development with AI

From front end to back end — learn to build, test and deploy complete software applications.

6 months	240	24	₹44,000
DURATION	GUIDED HOURS	MODULES	FOUNDING BATCH FEE

Who it is for

Career-focused learners and early developers who want structured skill from interface to database.

Before you begin

Basic computer skills and regular coding practice. A separate website course is not compulsory.

What you will build

- An assessed dashboard and API
- A four-module CRM/ERP-lite product
- A basic mobile companion app
- One reviewed AI feature

What you will be able to do

- Model a business before writing software, then build interfaces staff can actually use
- Design a NestJS API on PostgreSQL with authentication and authorisation
- Build CRM, tasks, orders and reporting modules whose numbers you can trust
- Test, deploy with CI, add an AI feature only where it helps, and defend what you built

Tools and technologies

TypeScript · React · Next.js · NestJS · PostgreSQL · Testing · GitHub Actions · Docker

Modules

MODULE 1 · 10 H — Model the Business Before Building Software

- Problem framing
- User journeys
- System boundaries
- Vertical slices
- AI-assisted specifications
- Acceptance criteria
- The HTTP mental model
- Reproducible environments
- Version history
- Problem-model checkpoint

MODULE 2 · 10 H — Browser Interfaces: From Meaning to Behaviour

- Semantic structure
- Forms and accessible names
- Cascade reasoning
- Responsive information design
- Design tokens
- UI-state modelling
- Dynamic values
- Functions and reuse
- References and mutation
- Browser checkpoint

MODULE 3 · 10 H — Logic, Asynchronous Work and Failure

- Conditions and validation
- Decision tables
- Collection transformations
- Pure transformations
- Asynchronous operations
- Concurrency fundamentals
- Error handling
- Uncertain outcomes
- Hypothesis-driven repair
- Foundation assessment

MODULE 4 · 10 H — TypeScript and Engineering Habits

- Static types
- Nullability and optional values
- Type escapes
- Union types
- DTOs and domain concepts
- Code organisation
- Dependency assessment
- Review checklists
- Collaborative Git
- Month 1 assessment

MODULE 5 · 10 H — Following Data Through React

- Component design
- Typed props
- Render identity
- State snapshots
- State placement
- Derived data
- The purpose of effects
- Asynchronous lifecycle
- Input state
- Frontend review

MODULE 6 · 10 H Next.js and Page Architecture

- URL design
- Layouts and access intent
- Execution choices
- Client-boundary size
- Data ownership
- Error meaning
- Shareable state
- Navigation persistence
- Caching choices
- Navigation assessment

MODULE 7 · 10 H A Dashboard Staff Can Actually Use

- Information density
- Search contracts
- Ordering semantics
- Pagination fundamentals
- Interaction choices
- Bulk-action experience
- Actionable errors
- Mutation feedback
- Keyboard task completion
- Usability assessment

MODULE 8 · 10 H Frontend Contracts and the Assessed Build

- Contract fixtures
- API-contract alignment
- Explicit UI transitions
- Generated-interface review
- Regression planning
- Testing strategy
- Measured frontend decisions
- First-run experience
- Foundation-build assessment A
- Foundation-build assessment B

MODULE 9 · 10 H NestJS: Who Guards the Server?

- Server runtime
- Architecture scope
- Controllers and services
- Providers
- Module boundaries
- HTTP methods
- Status and error contracts
- Runtime validation
- Input allowlists
- Server checkpoint

MODULE 10 · 10 H PostgreSQL: Taking Responsibility for Data

- Identity and schema
- Relational modelling
- Referential integrity
- Business constraints
- Missing-data semantics
- Precision awareness
- Temporal modelling
- Parameterised queries
- Migrations
- Database review

MODULE 11 · 10 H

Connecting the API to Real Data

- ORM reasoning
- Persisted writes
- Patch semantics
- Deletion policy
- N+1 query awareness
- Index trade-offs
- Pagination bounds
- Stable sorting
- Error translation
- Integration checkpoint

MODULE 12 · 10 H

From Authentication to Authorisation

- Authentication and authorisation
- Reviewed authentication integration
- Session-validity policy
- Resource authorisation
- Permission design
- Browser policy versus authentication
- CSRF awareness
- Secret handling
- Foundation-API assessment A
- Foundation-API assessment B

MODULE 13 · 10 H

CRM: From Records to Relationships

- Domain concepts
- Deduplication choices
- Assignment history
- Qualification rules
- Handling untrusted text
- Related operations
- Audit-trail design
- Query scoping
- Workflow integration
- Module review

MODULE 14 · 10 H

Tasks and Teams: The Status Contract

- Definition of done
- Derived-workflow consistency
- Reference validation
- State transitions
- Concurrent-edit awareness
- Collaboration history
- Scoped team visibility
- Workflow efficiency
- Module integration
- Module assessment

MODULE 15 · 10 H

Orders and Inventory-Lite: Numbers You Can Trust

- Order semantics
- Price snapshots
- Numeric invariants
- Deterministic totals
- Concurrency control
- Isolation reasoning
- Atomicity
- Idempotent reversal
- Scope boundaries
- Module assessment

MODULE 16 · 10 H

Reports, Files and Cross-Module Consistency

- Metric definitions
- Join cardinality
- Time boundaries
- Export permissions
- Safe spreadsheet exports
- Asset metadata
- Upload bounds
- Freshness requirements
- Cross-module integration
- Month 4 assessment

MODULE 17 · 10 H

Testing: What Does a Pass Actually Prove?

- Test oracles
- Focused tests
- Integration testing
- Test portfolios
- Negative authorisation tests
- Deterministic fixtures
- Overfitting to tests
- Coverage limits
- Independent verification
- Quality assessment

MODULE 18 · 10 H

Your First Reliability and Operations Responsibilities

- Background jobs
- Idempotent jobs
- Retry policies
- Backpressure awareness
- Resource protection
- Correlation IDs
- Actionable monitoring
- Liveness and readiness
- Release and data compatibility
- Operations drill

MODULE 19 · 10 H

An AI Feature: Helpful or Unnecessary?

- Feature selection
- Data minimisation
- Grounded generation
- Structured outputs
- Timeout and fallback experience
- Untrusted input
- Usage measurement
- Human review
- Regression evaluation
- AI-integration review

MODULE 20 · 10 H

Integration: When Every Part Works Together

- Compatibility
- Cross-layer state
- Policy consistency
- Authority maps
- Representative fixtures
- Configuration validation
- Dependency-failure isolation
- Scope discipline
- Traceability assessment
- Product-readiness review

MODULE 21 · 10 H — A Basic Mobile Companion: Small Scope, Real Integration

- Scope framing
- Shared concepts
- API reuse
- Mobile authentication integration
- Mobile information hierarchy
- Mobile mutations
- Mobile failure states
- Cross-client consistency
- Mobile-extension review
- Extension assessment

MODULE 22 · 10 H — Deployment, Continuous Integration and Recovery

- Hosting choices
- Continuous integration
- Secret management
- Release sequencing
- Fail-fast settings
- Deployment connectivity
- Recovery practice
- Release operations
- Preproduction testing
- Release assessment

MODULE 23 · 10 H — Product Delivery and Professional Judgement

- Audience-based documentation
- Executable documentation
- Decision records
- Handover clarity
- Operational prioritisation
- Support boundaries
- Accurate product claims
- Honest demonstrations
- Prioritisation
- Handover review

MODULE 24 · 10 H — Final Defence: Can You Explain What You Built?

- Requirement transfer
- Vertical-change assessment
- Debugging assessment
- Concurrency assessment
- Security assessment
- Engineering trade-offs
- Capstone viva A
- Capstone viva B
- Final readiness
- Reflection and next-level planning

Batch details

First class	22 Nov 2026 — Sunday 22 Nov is a special first class; regular classes run Mon – Fri from 23 Nov.
Days and time	Mon – Fri · 5:30 pm – 7:30 pm
Ends	6 May 2027 (public holidays may move this later)
Classes	120 classes · 10 h/week · home practice 8-10 hours/week

Format	Udaipur, Rajasthan · offline classroom · Hinglish (Hindi + English) · up to 15 learners

Scope: A modular monolith and scoped business workflows — not a complete enterprise ERP, accounting system or mobile specialisation. Job placement and interviews are not guaranteed.