React JS App Development with Vibe Coding

Duration: 4 days

Day 1: Vibe Coding Foundations + Frontend UI with React
- Intro to Vibe Coding (Karpathy's concept + Cursor AI)
- Setup: Cursor,Render, Netlify
- Create React App via Prompt
- Components, Props, State (prompting style)
- Tailwind CSS Styling by Prompt
- useState, useEffect with live generation

Labs

- Lab 1: Layout (Header, Footer, Navbar, Sidebar)
- Lab 2: Components: Card, Button, Table, Modal
- Lab 3: Prompting Forms with Real-Time Validation

Day 2: Routing, Backend API, Database (Fullstack Integration)
- React Router (Pages, Links, Params)
- Prompt Express Server & CRUD API
- MongoDB/MySQL integration (via prompt)
- Axios setup for frontend ↔ backend connection
- RESTful architecture & API testing

Labs

- Lab 4: Create Product Manager (CRUD)
- Lab 5: Dynamic Route (Product Details)
- Lab 6: Filter, Search & Paginate Items

Day 3: Auth, Role-based Access, Uploads, Charts, Payments
- JWT Auth via Prompt (Register/Login)
- Role-Based Access (User vs Admin)
- File Upload (image/pdf via Multer or Firebase)
- Add Recharts or Chart.js dashboard
- Stripe Payment Integration via Prompt
- Add Search, Filter & Category system

Labs

- Lab 7: Auth Flow + Dashboard Guard
- Lab 8: Role-based Route Protection
- Lab 9: File Upload + Preview & Storage
- Lab 10: Analytics Dashboard with Bar/Pie Charts
- Lab 11: Stripe Checkout for Simple Product Flow

Day 4: Testing, PDF Export, Deployment, Final App
- Unit Testing with Prompts
- Describe tests → AI writes `.test.jsx`
- Prompt test files for: Form input, API response, Protected route

<u>Labs</u>

- Lab 12: Final Testing, Deployment, and Export via AI & jsPDF
- Lab 13 (Capstone): Build & deploy: Login + Dashboard, Role Guard + CRUD, Charts + File Upload, PDF Export + Stripe Checkout