

Front End Development

1. Fundamentals of React & Core Concepts

- 1.1. Introduction to Frontend Development
- 1.2. JavaScript Refresher & ES6+ Concepts
- 1.3. Introduction to React
- 1.4. Functional Components & Props
- 1.5. State and Event Handling
- 1.6. Component Lifecycle and Hooks
- 1.7. Weekend Project

2. Intermediate React and Component Design Patterns

- 2.1. Handling Forms & Input Validation
- 2.2. Routing with React Router
- 2.3. Context API & Global State Management
- 2.4. Advanced Hooks (useMemo, useCallback)
- 2.5. Styling in React
- 2.6. Fetching Data with React Query/Axios
- 2.7. Weekend Project

3. Advanced React, State Management & Final Project

- 3.1. Introduction to Redux
- 3.2. Advanced Redux with Thunk
- 3.3. Component Design Patterns

- 3.4. Testing in React
- 3.5. TypeScript in React
- 3.6. Deployment and Hosting
- 3.7. Final Project Submission

Back End Development

1. Introduction to Backend Development with Node.js & Express.js

- 1.1. Overview of Backend Development
- 1.2. Introduction to Express.js
- 1.3. Introduction to RESTful API Design
- 1.4. Introduction to MongoDB
- 1.5. Working with MongoDB Models and Schemas
- 1.6. Authentication & Authorization with JWT
- 1.7. Weekend Project

2. Integrating React with Node.js & Building Full-Stack Applications

- 2.1. Introduction to Full-Stack Development
- 2.2. Connecting React and Express
- 2.3. State Management in React with APIs
- 2.4. CRUD Operations in Full-Stack Applications
- 2.5. Deployment of Express & React Applications
- 2.6. Introduction to WebSockets and Real-Time Applications
- 2.7. Weekend Project

3. Advanced Topics, Optimization, and Final Project

- 3.1. File Uploads and Image Handling
- 3.2. Security in Full-Stack Applications
- 3.3. Advanced Database Operations
- 3.4. Final Full Stack Project