👨‍💻 Full Stack Web Development Course Syllabus

Duration: 6–12 Months | **Mode:** Offline/Online | **Certificate:** Yes | **Internship:** Optional

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◆ Module 1: Web Basics

- Introduction to Web Development
- How Websites Work (Client-Server Architecture)
- HTTP/HTTPS, Domain, Hosting Concepts

◆ Module 2: Frontend Development

✅ HTML & HTML5

- Basic Tags (head, body, title, etc.)
- Forms and Validations
- Semantic HTML
- Audio, Video, iframe

✅ CSS & CSS3

- Selectors, Properties, Colors
- Box Model
- Flexbox & Grid
- Media Queries (Responsive Design)
- CSS Animations and Transitions

✅ Bootstrap / Tailwind CSS

- Responsive Grid System
- UI Components (Navbar, Cards, Carousel, etc.)
- Custom Theme Designing

✅ JavaScript (JS)

- Variables, Data Types, Operators
- DOM Manipulation
- Events and Event Handling
- Functions, Arrays, Objects
- ES6 Concepts: let, const, arrow functions, spread, destructuring
- Local Storage, JSON
- Form Validations

✅ Version Control

- Git & GitHub
- Git Commands (init, add, commit, push, pull)
- Branching & Merging

◆ Module 3: Advanced Frontend (Framework)

✅ React JS (or optional Angular/Vue)

- React Basics, JSX, Components
- State & Props
- React Hooks (useState, useEffect)
- React Router
- Form Handling, API Calls (fetch/axios)
- Redux Basics (optional)

◆ Module 4: Backend Development

✅ Node.js & Express.js

- Node.js Basics
- npm & Package.json
- Creating API (RESTful APIs)
- Express.js Routing & Middleware
- Handling POST, GET, PUT, DELETE

✅ Authentication

- JWT (JSON Web Tokens)
- Login/Signup System
- Password Hashing using Bcrypt

✅ File Upload

- Multer for Image/File Upload
- Handling Paths and Static Files

◆ Module 5: Database

✅ MongoDB (NoSQL)

- Introduction to MongoDB
- CRUD Operations

- Mongoose ODM
- Relationships & Schemas
- Aggregation Framework

✅ OR Optional: MySQL

- SQL Basics: SELECT, INSERT, UPDATE, DELETE
- Joins, Normalization
- Integration with Node.js

◆ Module 6: APIs and Integration

- REST API Concepts
- Consuming Third-Party APIs
- Postman for API Testing
- Payment Gateway Integration (e.g., Razorpay or GoKwik)

◆ Module 7: Deployment & DevOps Basics

- Environment Variables
- Hosting Frontend (Netlify/Vercel)
- Hosting Backend (Render, Railway, or VPS)
- MongoDB Atlas for Database Hosting
- Domain Linking
- GitHub Actions (Optional)
- Basic Linux Commands

◆ Module 8: Final Project & Internship

- E-commerce Website
- Admin Dashboard
- Portfolio Website
- Blog System
- Project Documentation
- Hosting & Live Deployment

◆ Bonus (Optional)

- TypeScript Basics
- Docker Basics
- CI/CD Introduction

- Freelancing Tips
- Resume Building & Interview Preparation