📒 Comprehensive Web Development Course – (6 Months)

📅 Duration & Format
- **Total Duration:** 24 Weeks (6 Months)

- **Sessions per Week:** 3 (1.5 hours each)

- **Homework:** 4–5 hours/week

- **Total Learning Hours:** ~358 hours

    - 108 hours instructor-led

    - 250 hours self-paced

📚 Module-Wise Breakdown

MODULE 1: Web Development Fundamentals (4 Weeks)

Week 1: Web Introduction
- Internet basics, HTTP/HTTPS, Git & GitHub

- Development environment setup (VS Code, CLI)

- Assignments: GitHub profile, basic HTML page

Week 2: HTML5 Essentials
- HTML structure, semantic elements, forms & media

- Assignments: Profile page, semantic conversion, form project

Week 3: CSS3 Essentials
- CSS syntax, Flexbox, Grid layouts

- Assignments: Styled personal page, photo gallery, responsive dashboard

Week 4: Responsive Design & UI/UX
- Media queries, CSS variables, animations, WCAG

- Assignments: Responsive designs, UI critique and improvement

---

MODULE 2: JavaScript Programming (6 Weeks)

Weeks 5–6: JavaScript Fundamentals
- Syntax, variables, control flow, functions, ES6+

- Arrays, objects, modern JS practices

- Assignments: Guessing game, to-do app, ES6 refactor

Weeks 7–8: DOM & Web APIs
- DOM manipulation, forms, validation

- Browser storage, Fetch API, building dynamic apps

- Assignments: Color picker, quiz app, weather dashboard

Weeks 9–10: Advanced JS
- Promises, async/await, modules

- OOP in JS, functional programming, testing with Jest

- Assignments: Library system, FP refactor, Jest tests

MODULE 3: Frontend Development (5 Weeks)

Weeks 11–12: React Fundamentals
- JSX, components, props, state (useState), effects (useEffect)

- Forms, composition patterns

- Assignments: Profile card, multi-step form, reusable components

Week 13: React State Management
- Context API, useReducer, Zustand/Redux

- Assignments: Dark mode, global state management

Week 14: Routing & Data
- React Router, React Query, authentication patterns

- Assignments: Multi-page app, data dashboard, auth-enabled app

Week 15: Styling Modern UIs
- TailwindCSS, responsive styling, component libraries, animations

- Assignments: Tailwind conversion, landing page, Framer Motion animations

MODULE 4: Backend Development (5 Weeks)

Week 16: Node.js Essentials
- Node.js basics, file system, async patterns

- Assignments: CLI tool, async utilities

Week 17: Express.js
- Routing, middleware, REST APIs

- Assignments: CRUD API, middleware logging

Week 18: SQL with PostgreSQL
- SQL CRUD, schema design, Node-Postgres integration

- Assignments: Schema design, SQL challenge, Express integration

Week 19: NoSQL & ORMs

- MongoDB, Mongoose, Prisma ORM

- Assignments: MongoDB models, Prisma setup

Week 20: Security & Testing
- JWT, secure APIs, testing with Jest & Supertest

- Assignments: API auth & validation, test coverage

MODULE 5: Full Stack Integration (4 Weeks)

Week 21: Next.js Framework
- File-based routing, SSR/SSG, API routes

- Assignment: Convert React app to Next.js

Week 22: Cloud Deployment
- Vercel, serverless functions, environment variables

- Assignments: Live deployment, serverless features

Weeks 23–24: Final Capstone Project
- Planning, architecture, frontend & backend integration

- Final deployment, documentation, portfolio-ready project

🛠️ Technology Stack

- **Frontend:** HTML5, CSS3, JavaScript (ES6+), React, Next.js, TailwindCSS

- **Backend:** Node.js, Express.js, REST APIs

- **Databases:** PostgreSQL (SQL), MongoDB (NoSQL)

- **Tools:** Git, VS Code, npm, Vite

- **Deployment:** Vercel, Serverless Functions

🎓 Certification

Certificate Awarded:

"Certified Full-Stack Web Developer – Uplatz Advanced Program"

This certificate proves:

- Proficiency in full-stack development

- Mastery of modern frameworks and technologies

- Ability to build, test, and deploy real-world applications

- Industry-aligned, job-ready expertise