



FULL STACK WEB DEVELOPMENT

Curriculum

HTML | CSS | JavaScript | Git | GitHub | SASS/LESS | Flexbox | CSS Grid | React |
Context API | Redux | Node.js | Express | MongoDB | PostgreSQL | Jest | Mocha |
Docker | Heroku | Vercel | Vue | Angular | Flask | Django

Week 1: Introduction to Web Development & Front-end Basics

Day 1: Introduction to Web Development

Day 2: HTML

Building the Structure for your Personal Website

Day 3: CSS

Styling your Personal Website

Day 4: Responsive Design

Make your Personal Website Responsive to display properly in all device

Day 5: JavaScript

Improve the User Experience of your Personal Website using Javascript

Day 6: Document Object Model (DOM) Manipulation

Adding Dynamic Feature in the Website based on user interaction with the website

Day 7: Complete Personal Website

Recap of the week.

Complete our Personal Website by adding all required Features

Week 2: Advanced Front-end Development & Introduction to Back-end

Day 8: Advanced CSS and Preprocessors

Introduction to CSS preprocessors (SASS or LESS).

[BONUS] Netflix Clone - Hero Section

Day 9: JavaScript ES6+ Features

Let, const, arrow functions, template literals.

Promises, async/await.

Building Weather Web Application using Weather API

Day 10: Front-end Frameworks & Library - React

Introduction to React and its ecosystem.

Components, props, and state.

Build a single-page application (SPA) with React - Mini ToDo App

Day 11: State Management

Introduction to state management by using Context API and Redux.

Integrate state management into your SPA.

Day 12: Introduction to Back-end Development

Overview of back-end technologies.

Setting up Node.js and Express.

Build a simple REST API.

Day 13: Database Integration

Introduction to databases (SQL vs. NoSQL).

Connecting your API to a database (MongoDB or PostgreSQL).

Creating web application using MongoDB & PostgreSQL

Day 14: Authentication Process on Web Application

Add authentication to your SPA and API.

Week 3: Full Stack Integration & DevOps Basics

Day 15: Connecting Front-end to Back-end

Video Testimonial Tool for Companies

Day 16: Advanced Back-end Techniques

Building middleware for authentication.

Complete ToDo Application

Day 17: Introduction to Testing

Unit testing, integration testing.

Testing in front-end and back-end (Jest, Mocha).
Mini-project: Write tests for your application.

Day 18: DevOps - Docker

Introduction to Docker.

Convert & Push your Web application as an Docker Image into Dockerhub

Day 19: DevOps - Git/GitHUB

Introduction to Git & GitHub

Exploring Various GitCommands

Day 20: DevOps & Deployment - Heroku & CI/CD Pipeline

Deploying your application (Heroku).

Continuous Integration/Continuous Deployment (CI/CD) basics.

Day 21: Introduction to Other Frameworks and Libraries

Overview of other popular tools (Vue, Angular).

Small tasks using new tools.

Day 22: Introduction to Python based web application

Overview of other popular tools (Flask & Django).

Creating Web Applicaton using Django with ChatGPT API

Day 23: Planning and Design

Conceptualization of the web application idea.

Requirement analysis for functionality, features, and user interactions.

Technology selection for front-end and back-end.

Designing wireframes or mockups for the application's UI.

[BONUS] Netflix Clone Complete

Day 24: Launching your Application

Introduction to Domain & Hosting

Deploying the application to a cloud platform or hosting service.

Day 25: Security Best Practices

Web application security fundamentals.

Securing your application (OWASP Top 10).

Day 26: Scalable Architectures

Introduction to microservices and serverless architectures.
Case study: Scaling a web application.

Day 27: Building Portfolio

Setting up Personal Website, GitHub & LinkedIn Profile

Day 28: Creating another source of Income

Freelancing and remote work opportunities.

Day 29: Career Skills in Web Development

Resume writing and interview preparation, Crack interview on Full stack journey.

Day 30: Final Review & Graduation

Final project presentations.

Feedback session.

Graduation and next steps.

