# 15 Days - Fundamentals of Web Development

### Module 1: Introduction to Web Development (1 Day)

- Overview of web development: Frontend, Backend, Full Stack
- Tools and setup: VS Code, Browser Dev Tools, Git

# Module 2: HTML Basics (3 Days)

- Structuring web pages with HTML
- Semantic HTML and best practices

### Module 3: CSS Basics (3 Days)

- Styling web pages
- CSS Selectors, Box Model, and Flexbox

#### Module 4: Introduction to JavaScript (5 Days)

- Basics: Variables, Loops, Functions, and Events
- DOM Manipulation

#### Module 5: Mini Project (3 Days)

Create a static website

# **30 Days - Frontend Development**

#### Includes All 15-Day Modules

### Module 6: Advanced CSS (5 Days)

- CSS Grid, Media Queries, and Responsive Design
- Introduction to CSS Frameworks (Bootstrap/Tailwind CSS)

# Module 7: JavaScript Advanced Concepts (5 Days)

- ES6 Features (Arrow Functions, Classes, Promises)
- Event Listeners and Error Handling

### Module 8: Introduction to Version Control (Git) (2 Days)

- Setting up Git and GitHub
- Basic commands and collaboration

#### Module 9: Introduction to Frontend Frameworks (React.js) (5 Days)

- Understanding Components and JSX
- State and Props

### Module 10: Intermediate Project (3 Days)

• Responsive website with interactive features

# **45 Days - Full Frontend Development**

## Includes All 30-Day Modules

#### Module 11: Advanced JavaScript (5 Days)

- APIs and Fetching Data (AJAX)
- LocalStorage and SessionStorage

### Module 12: Advanced React.js (10 Days)

- React Router and Hooks (useState, useEffect)
- Context API for State Management

### Module 13: Project (5 Days)

Dynamic website with API integration

# 60 Days - Full-Stack Foundations

### Includes All 45-Day Modules

#### Module 14: Introduction to Backend Development (10 Days)

- Basics of Node.js and Express.js
- Setting up a server and handling requests

#### Module 15: Database Integration (5 Days)

- Introduction to MongoDB
- CRUD Operations with Node.js

#### Module 16: Backend and Frontend Integration (5 Days)

Connecting React Frontend to Node.js Backend

## Module 17: Project (5 Days)

• Build a small full-stack application

# 90 Days - Full-Stack Development

#### Includes All 60-Day Modules

# Module 18: Advanced Backend Development (10 Days)

- Middleware in Express.js
- Authentication and Authorization (JWT)

# Module 19: RESTful APIs (10 Days)

- Designing APIs
- API Testing with Postman

#### Module 20: Deployment and Version Control (5 Days)

- Deploying Applications to Heroku/Vercel
- Git Branching Strategies

# Module 21: Advanced Project (10 Days)

• Full-stack application with user authentication

# **180 Days - Master Web Development**

# Includes All 90-Day Modules

# Module 22: Advanced Frontend Techniques (15 Days)

• Redux for State Management

Advanced Animations and Transitions

# Module 23: Advanced Backend Concepts (15 Days)

- File Uploads and Streams
- WebSockets for Real-Time Communication

### Module 24: DevOps Basics (10 Days)

- CI/CD Pipelines (GitHub Actions)
- Introduction to Docker

### Module 25: Advanced Full-Stack Projects (30 Days)

- E-commerce Platform with Payment Integration
- Real-Time Chat Application

# Module 26: Capstone Projects and Career Preparation (30 Days)

- Multiple projects based on real-world scenarios
- Building a professional portfolio
- Resume building and interview preparation