

## WEB DEVELOPMENT

**Course Id:** WDAF02ENT24DIP**Duration:** 60 Hours**Difficulty:** Easy**Level:** Entry

### 1. Introduction to Web Development

- Introduction to the course, tools, and technologies
- Overview of web development landscape
- Setting up development environment (text editor, browser)
- Introduction to Git and version control
- HTML5 fundamentals
- CSS3 fundamentals
- Building a simple static webpage

### 2. Responsive Web Design and CSS Frameworks

- Understanding responsive design principles
- Introduction to CSS frameworks (e.g., Bootstrap)
- Responsive layout techniques
- Implementing media queries
- Building a responsive webpage using Bootstrap

### 3. JavaScript Basics

- Introduction to JavaScript
- JavaScript syntax and basic constructs
- Variables, data types, and operators
- Control flow and loops
- Functions and scope
- DOM manipulation basics

### 4. Intermediate JavaScript and Front-end Frameworks

- Intermediate JavaScript concepts (objects, arrays, classes)
- Introduction to front-end frameworks (e.g., React, Vue.js)
- Introduction to npm and package management

- Building interactive UI components using a front-end framework
  - Handling user input and events
5. Introduction to Back-end Development
    - Introduction to back-end development concepts
    - Introduction to Node.js and Express.js
    - Setting up a basic server with Node.js
    - Handling HTTP requests and responses
    - Introduction to RESTful APIs
    - Building a simple RESTful API with Express.js
  6. Database Integration and Project Development
    - Introduction to databases (SQL vs. NoSQL)
    - Introduction to MongoDB and Mongoose (for MongoDB)
    - Connecting Node.js to a database
    - Performing CRUD operations
    - Building a full-stack web application (e.g., a simple blog, task manager)
    - Project presentation and review