

Developing Web Applications with JavaScript, HTML5, and CSS LVC

Course Duration: 32 Hours

Course Code: DVWP-JHC

1. Course Overview

This course provides comprehensive training in building modern, interactive, and responsive web applications using JavaScript, HTML5, and CSS. Participants will learn how to design, develop, and deploy dynamic websites while leveraging the latest web standards and best practices. The training emphasizes practical hands-on exercises, enabling learners to create professional-grade applications for real-world use.

2. What You'll Learn?

- Fundamentals of HTML5, CSS, and JavaScript
- Creating responsive layouts with modern CSS techniques
- Implementing interactivity with JavaScript and DOM manipulation
- Handling events, forms, and validation
- Using HTML5 APIs for enhanced functionality (local storage, multimedia, etc.)
- Building cross-browser and mobile-friendly web applications
- Debugging and optimizing code for performance
- Best practices for structuring and maintaining clean, scalable code

3. Target Audience

This course is designed for:

- Aspiring web developers and programmers
- Front-end developers looking to strengthen their skills
- IT professionals transitioning into web application development
- Students and beginners interested in learning modern web technologies
- Anyone seeking to build interactive and responsive websites

4. Pre-Requisites

- Basic knowledge of computers and the internet
- Familiarity with any programming language (recommended but not mandatory)
- No prior web development experience is required

5. Course Content

Module 1: Introduction to Web Development

- Overview of web technologies
- Understanding client-server architecture
- Introduction to HTML5, CSS, and JavaScript

Module 2: HTML5 Essentials

- Structure of an HTML document
- Semantic elements and forms
- Multimedia integration (audio, video, canvas)

Module 3: CSS for Styling and Layouts

- CSS syntax and selectors
- Responsive design with media queries

- Flexbox and Grid layout systems
- CSS transitions and animations

Module 4: JavaScript Fundamentals

- Variables, operators, and data types
- Functions, objects, and arrays
- Control structures and loops

Module 5: DOM Manipulation and Events

- Accessing and modifying DOM elements
- Event handling and propagation
- Form validation with JavaScript

Module 6: Advanced HTML5 and JavaScript Features

- HTML5 APIs (local storage, geolocation, canvas)
- JavaScript ES6+ features (arrow functions, classes, modules)
- Error handling and debugging techniques

Module 7: Building Responsive Web Applications

- Best practices for cross-browser compatibility
- Mobile-first design approach
- Performance optimization

Module 8: Project and Wrap-up

- Developing a complete responsive web application
- Code review and optimization
- Final project presentation