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Learning Style: Virtual Classroom

Technology:

Difficulty: Beginner

Course Duration: 3 Days

Introduction HTML5, CSS3 and JavaScript (TT4003)



About This Course:

Whether you are new to front-end development or have some programming experience but need structured guidance, this course provides practical, real-world skills to create, style, and enhance web pages from the ground up. If you understand the basics of how websites work, are comfortable using a text editor, and are eager to write real code, you will gain the knowledge and experience needed to turn web concepts into polished, interactive designs.

With about half the course dedicated to hands-on labs and activities, you will develop essential front-end scripting and design skills, starting with structuring content using HTML5 to ensure clarity and accessibility. You will then style and position layouts with CSS3, applying Flexbox, advanced selectors, and responsive design techniques to create visually engaging pages that adapt seamlessly to any screen. JavaScript will allow you to build interactive elements, handle user input, and dynamically update content, making your web pages more engaging and functional. Along the way, you will strengthen your problem-solving skills using debugging tools and best practices to optimize performance and troubleshoot issues efficiently. By the end of the course, you will have the ability to design, develop, and refine basic professional-quality web pages, setting the foundation for a career in web development, expanding your technical expertise, or bringing your personal projects to life.

Course Objectives:

- Craft Stunning Web Pages from Scratch. Build well-structured, responsive web pages using modern HTML5, ensuring accessibility and intuitive navigation.

  Master CSS3 Styling for Eye-Catching Designs. Transform basic layouts into visually dynamic, polished web experiences with Flexbox, advanced selectors, and interactive effects.

- Bring Web Pages to Life with JavaScript. Add interactivity and dynamic behaviors using JavaScript, from handling user input to manipulating the DOM in real time.

  Debug Like a Pro & Optimize Performance. Use browser developer tools to troubleshoot issues, fine-tune page performance, and ensure smooth functionality across devices.

- Create Adaptive & Mobile-Ready Layouts. Implement responsive design principles so your websites look and function beautifully on desktops, tablets, and smartphones.

- Think Like a Web Developer. Apply best practices in coding, structuring, and problem-solving, gaining the confidence to build and refine professional web projects.

Audience:

- This introductory-level course is designed for aspiring web developers, software engineers, and tech enthusiasts who want to build modern, responsive websites using HTML5, CSS3, and JavaScript. It's ideal for those with some technical background (such as basic coding or software experience) but no prior web development expertise. Perfect for developers, UX/UI designers, digital marketers, and IT professionals, this hands-on training will help you confidently create and style web pages while adding

interactive functionality.

Prerequisites:

- Basic Web Awareness. A general understanding of how websites work, including how browsers render web pages and basic internet concepts.

- Comfort with Code Editing. Familiarity with using a text editor or IDE to write and edit simple code (even if it's just tweaking existing files). You don't have to be a hard core programmer, but you should have seen code or scripting before.

Course Outline:

1. Introduction to HTML Basics

- What is HTML?
- XHTML and its relationship to HTML
- HTML limitations and improvements
- Hands-On Lab

2. Getting Started with HTML5

- HTML5: Status and Support
- Semantic Structure and Tags
- Handling Complex Media Options

3. Creating Forms with HTML5

- Working with Legacy Browsers
- Forms, Input Types, and Data Qualification
- Hands-On Lab

4. CSS Basics

- Learn the basics of CSS
- Meaning of cascading in CSS
- Declaring CSS within your HTML page
- Creating styles in an external CSS file
- Control how to display and position HTML elements
- Overriding standard tag behavior
- Adding new classes
- Using custom classes in your page
- Hands-On Lab

5. Exploring CSS3

- What is new in CSS3
- The Advantages of CSS3
- Layout of elements using the display property
- CSS Flexbox
- Hands-On Lab

6. CSS3 Advanced Selectors

- Selecting Using Attributes
- Selecting Using DOM Structure
- Complex Selecting using Pseudo-Classes
- Selecting Using UI Components and State
- Hands-On Lab

7. CSS3 Visual Effects

- Font Options, Opacity, and Color
- Distributing Content Across Columns
- Working with Borders and Boxes
- Working with Vendor Prefixes
- Functional Techniques
- Hands-On Lab

8. JavaScript Basics

- JavaScript Defined
- Variables and Operators
- Flow Control and Conditionals
- Hands-On Lab

9. Debugging Tools

- Using the strict mode and setting breakpoints
- Browser debugging tools
- Monitoring resource usage and performance
- Emulating devices Exceptions in JavaScript
- Exceptions in JavaScript
- Hands-On Lab

10. JavaScript Functions

- Functions in JavaScript
- Invoking Functions
- Function Constructor
- Function Scope and Closures

11. JavaScript Arrays, Math and Date

- JavaScript Literals
- JavaScript Arrays
- Working with Numbers and Dates
- Hands-On Lab

12. Exploring ES6 and TypeScript

    - Introduction to ES6: Let, Const, and Arrow Functions
    - Template Literals and Destructuring
    - Understanding TypeScript and Why It's Useful
    - Hands-On Lab

13. Diving Deeper: TypeScript

    - TypeScript Basics: Types and Interfaces
    - Working with TypeScript Classes and Modules
    - Setting Up a TypeScript Project and Compiling Code
    - Hands-On Lab

14. JavaScript Event Handling and the DOM

    - Events and Event Handling
    - HTML Document Object Model
    - Accessing the DOM
    - Dynamically Working with the DOM
    - DOM Challenges
    - Hands-On Lab

15. Object-Oriented JavaScript

    - JavaScript 'Objects' and 'Classes'
    - Constructors and Prototypes
    - Extending Classes with Prototype
    - Reusable, Flexible Classes
    - Hands-On Lab