HTML5, CSS3, and JavaScript: Building Responsive Websites

Duration: *3 Day(s)*

Course Overview

Our hands-on course in HTML5, CSS3, and JavaScript offers aspiring developers the tools to create modern and responsive websites with ease. Through rigorous labs and activities, you'll learn to structure content using HTML5, apply CSS3 for styled layouts, and harness JavaScript for interactivity. This course sharpens your problem-solving skills and prepares you to build web pages that are both engaging and functional, laying a solid foundation for a successful career in web development.

Review this course online at https://www.alta3.com/courses/A3-4003

Objectives

- Build responsive web pages with HTML5.
- Enhance designs with CSS3 styling techniques.
- Implement interactive elements using JavaScript.
- Troubleshoot and optimize website performance.

Who Should Attend

- Aspiring web developers
- Full stack engineers
- UI/UX designers
- IT professionals

Prerequisites

- Basic knowledge of web
- Experience with code editing

Course Outline

HTML Fundamentals

1. Understanding HTML
2. Relationship with XHTML
3. Improvements over HTML
4. Hands-On Lab

Intro to HTML5

5. HTML5 Status and Support
6. Semantic Tags Overview
7. Managing Complex Media

HTML5 Form Building

8. Legacy Browser Compatibility
9. Form Elements and Validation
10. Hands-On Lab

CSS Fundamentals

11. CSS Basics Explained
12. Cascading Concept in CSS
13. Inline and External Styles
14. Positioning and Display Control
15. Class Usage in HTML
16. Hands-On Lab

Advanced CSS3

17. New Features of CSS3
18. CSS3 Benefits and Layout Techniques
19. CSS Flexbox Utilization
20. Hands-On Lab

CSS3 Advanced Selectors

21. Attribute-Based Selection
22. Selectors Using DOM
23. Pseudo-Class Complex Selectors
24. UI Component State Selection
25. Hands-On Lab

CSS3 Visual Enhancements

26. Typography and Opacity Controls
27. Multi-Column Layouts
28. Border and Box Manipulation
29. Vendor Prefixes and Techniques
30. Hands-On Lab

JavaScript Essentials

31. Defining JavaScript
32. Variables and Operators
33. Control Structures and Conditions
34. Hands-On Lab

Debugging Strategies

35. Strict Mode Use and Breakpoints
36. Debugging Tools in Browsers
37. Resource Monitoring and Performance
38. Managing JavaScript Exceptions
39. Hands-On Lab

JavaScript Functions

40. Functions Overview
41. Invoking and Constructing Functions
42. Function Scope and Closures

Arrays, Math, and Date in JavaScript

43. JavaScript Literals Explored
44. Array Manipulations
45. Numbers and Dates Handling
46. Hands-On Lab

Modern JavaScript and TypeScript

47. ES6 Features: Let, Const, Arrow Functions
48. Template Literals and Destructuring
49. TypeScript Introduction
50. Hands-On Lab

TypeScript Deep Dive

51. Types and Interfaces
52. Classes and Modules in TypeScript
53. Project Setup and Code Compilation
54. Hands-On Lab

JavaScript Events and DOM

55. Event Handling Techniques
56. DOM Access and Manipulation
57. Dynamic DOM Operations
58. DOM Challenges
59. Hands-On Lab

Object-Oriented JavaScript

60. Understanding Objects and Classes
61. Constructors and Prototypes
62. Extending with Prototypes
63. Reusable Class Design
64. Hands-On Lab