

Fullstack Web Development Bootcamp

HTML

Module 1: Introduction to HTML

- Overview of Web Development
- Introduction to HTML
- HTML Document Structure
- HTML Elements and Tags
- HTML Attributes

Module 2: HTML Document Structure

- Head Section: Metadata and Document Title
- Body Section: Content Structure
- Text Formatting and Semantic Tags
- Lists (Ordered and Unordered)
- Hyperlinks (Anchor Tags)

Module 3: HTML Forms

- Creating Forms
- Form Elements (Input, Textarea, Select, Button)
- Form Attributes and Methods
- Form Validation

Module 4: Multimedia in HTML

- Working with Images (img Tag)
- Embedding Audio and Video (audio and video Tags)
- Responsive Images and Video

Module 5: HTML Tables

- Creating Tables
- Table Rows and Cells
- Table Headings and Captions
- Table Styling with CSS

Module 6: HTML5 Semantic Elements

- Header, Footer, Nav, Article, Section
- Aside, Figure, Figcaption, Main
- Mark, Progress, Time, Details

Module 7: HTML Metadata and SEO

- Meta Tags for SEO
- Viewport Meta Tag
- Favicon and Touch Icons
- Structuring Content for SEO

Module 8: HTML Accessibility

- Importance of Web Accessibility
- Semantic HTML for Accessibility
- ARIA (Accessible Rich Internet Applications) Roles and Attributes

Module 9: HTML Best Practices

- Code Indentation and Formatting
- Comments in HTML
- Validating HTML Code
- Cross-Browser Compatibility

Module 10: Project: Building a Simple Web Page

- Applying HTML Concepts in a Real-world Project
- Incorporating Multimedia, Forms, and Semantic Elements
- Basic CSS Styling (if CSS is covered in a separate module)

Module 11: Responsive Web Design Basics

- Introduction to Responsive Design
- Media Queries
- Flexbox and Grid Layout Basics

Module 12: HTML Versioning and New Features

- HTML Versions (HTML5)
- New Features in HTML5
- Compatibility and Polyfills

CSS

Module 1: Introduction to CSS

- Overview of Cascading Style Sheets (CSS)
- Inline, Internal, and External Styles
- CSS Selectors and the Box Model
- CSS Syntax and Comments

Module 2: Basic Styling Properties

- Text Styling (Font, Color, Size, Line Height)
- Background Properties (Color, Image, Repeat, Position)
- Margin, Padding, Border

Module 3: Layout and Positioning

- Display Property (Block, Inline, Inline-Block)
- Positioning (Relative, Absolute, Fixed)
- Floats and Clearing Floats
- Flexbox Basics

Module 4: Responsive Design with Media Queries

- Introduction to Responsive Web Design
- Media Queries Syntax and Usage
- Mobile-First Design Approach
- Responsive Images and Videos
- CSS frameworks- JQuery Bootstrap, Tailwind CSS, Materialize CSS

Module 5: CSS Transitions and Animations

- Transition Properties (Property, Duration, Timing Function)
- Keyframes and Animations
- Creating Simple CSS Animations

Module 6: CSS Flexbox and Grid Layout

- Understanding Flexbox
- Flex Container and Flex Items
- Introduction to Grid Layout

Module 7: CSS Variables

- Declaring and Using CSS Variables
- Scope and Inheritance of CSS Variables

- Dynamic Styling with Variables

Module 8: CSS Preprocessors (Optional)

- Introduction to CSS Preprocessors (e.g., Sass, Less)
- Variables, Mixins, and Nesting
- Compiling Preprocessor Code to CSS

Module 9: CSS Frameworks

- Overview of CSS Frameworks (e.g., Bootstrap, Bulma)
- Using Frameworks for Rapid Development
- Customizing Framework Styles

Module 10: CSS Best Practices

- Naming Conventions and Code Organization
- CSS Specificity and Inheritance
- Cross-Browser Compatibility
- Performance Optimization

Module 11: Project: Building a Responsive Website

- Applying CSS Concepts in a Real-world Project
- Implementing Responsive Design
- CSS Styling for Different Screen Sizes

Module 12: Advanced CSS Techniques

- CSS Grid Layout Advanced Concepts
- CSS Custom Properties for Theming
- Advanced Selectors and Pseudo-classes

Module 13: CSS Flexbox and Grid Project

- Building a Layout Using Flexbox and Grid

- Responsive Design with Flexbox and Grid

JavaScript

Module 1: Introduction to JavaScript

- Overview of JavaScript
- JavaScript in the Browser
- Variables, Data Types, and Operators
- Basic Input/Output (Console, Alerts, Prompts)

Module 2: Control Flow and Functions

- Conditional Statements (if, else, switch)
- Loops (for, while, do-while)
- Functions and Scope
- Parameters and Return Statements

Module 3: JavaScript Arrays

- Introduction to Arrays
- Array Methods (push, pop, shift, unshift, slice, splice)
- Iterating through Arrays (for...of, forEach)

Module 4: JavaScript Objects

- Creating Objects
- Object Properties and Methods
- JSON (JavaScript Object Notation)

Module 5: Document Object Model (DOM)

- Understanding the DOM

- Accessing and Modifying HTML Elements with JavaScript
- Events and Event Handling
- Event Bubbling and Delegation

Module 6: Asynchronous JavaScript

- Introduction to Asynchronous Programming
- Callback Functions
- Promises and the Fetch API
- Async/Await

Module 7: JavaScript Functions and Closures

- Advanced Function Concepts
- Closures and Lexical Scoping
- Immediately Invoked Function Expressions (IIFE)

Module 8: JavaScript Error Handling

- Understanding Errors in JavaScript
- Try, Catch, Finally Blocks
- Error Objects and Custom Error Handling

Module 9: JavaScript ES6+ Features

- Arrow Functions
- Template Literals
- Destructuring Assignment
- let, const, and Block Scoping
- Classes and Modules

Module 10: Web APIs and AJAX

- Introduction to Web APIs
- Making API Requests with Fetch
- Handling JSON Data

- AJAX and Asynchronous Data Loading

Module 11: JavaScript and Browser Storage

- Local Storage and Session Storage
- Cookies and Web Storage API
- Best Practices for Client-Side Storage

Module 12: JavaScript Testing

- Unit Testing with Frameworks (e.g., Jest)
- Testing Tools and Best Practices

Module 13: JavaScript Best Practices

- Code Organization and Style
- Code Optimization and Performance
- Cross-Browser Compatibility

Full-Stack Development (Advanced Topics)

Module 1: Backend Development

- Introduction to Backend Development
- Server-side scripting (Node.js, Python, Ruby, PHP)
- RESTful API Design and Implementation

Module 2: Databases

- Relational Databases (e.g., MySQL, PostgreSQL)
- NoSQL Databases (e.g., MongoDB)
- Connecting to Databases from the Backend

Module 3: Full-Stack Development

- Integrating Frontend and Backend
- Full-Stack Frameworks (e.g., Express.js, Django, Flask)

Module 4: Version Control and Collaboration

- Introduction to Git and GitHub
- Collaborative Development Workflows

Module 5: Deployment and Hosting

- Deployment Strategies
- Hosting Platforms (e.g., Hostinger, AWS, GoDaddy)
- Domain and DNS Management

Module 6: Career Development

- Building a Portfolio
- Job Search Strategies
- Interview Preparation