

# Complete Web Development Bootcamp: HTML to Firebase

Master front-end and back-end web development with hands-on projects. Ideal for beginners and professionals aiming to build modern web apps in 2026.

**Programming** Instructor: Daniel Brooks • 5 sections • 51 lessons • 20.25h total

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## About this course

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Web development involves a stack of technologies, and learning them separately often leads to gaps in skills. This course starts from scratch, covering HTML and CSS foundations before moving into programming and frameworks, so you can build cohesive projects without confusion.

You'll work through video lessons, real-world case studies, and step-by-step guides to learn HTML5, CSS3, JavaScript, TypeScript, Vue.js, React, Firebase, and Git. By the end, you'll create and deploy full-stack web applications with confidence.

# Course curriculum

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## Web Fundamentals: HTML & CSS

- **Structuring Web Pages with Semantic HTML5 (12m)**  
Step-by-step guide to using HTML5 tags for meaningful page structure, improving accessibility and SEO.
- **Building Your First Complete Web Page (18m)**  
Practical session creating a multi-section webpage from scratch, applying semantic elements.
- **CSS3 Basics: Selectors, Properties, and Values (15m)**  
Hands-on introduction to styling with CSS, covering selectors and common properties for text and boxes.
- **Styling Text, Colors, and Backgrounds (12m)**  
Real case study on enhancing visual appeal with CSS typography, colors, and background techniques.
- **Mastering Flexbox for Modern Layouts (25m)**  
Problem-solving session using Flexbox to create flexible, responsive layouts without floats.
- **CSS Grid for Complex Page Structures (30m)**  
Step-by-step guide to designing grid-based layouts for dashboards and multi-column designs.
- **Responsive Design with Media Queries (20m)**  
Practical approach to making sites adapt to different screen sizes using breakpoints.
- **Project: Building a Responsive Portfolio Site (32m)**  
Apply HTML and CSS skills to create a personal portfolio that works on mobile and desktop.

## Core JavaScript Programming

- **JavaScript Fundamentals: Variables and Data Types (20m)**  
Hands-on introduction to JavaScript syntax, variable declaration, and data types for interactive scripts.
- **Control Flow: Conditionals and Loops (18m)**  
Step-by-step guide to using if statements and loops to handle logic and repetition in code.
- **Functions and Scope in JavaScript (22m)**  
Real case study on defining and using functions, including scope and closure concepts.
- **Working with Arrays and Objects (25m)**  
Problem-solving session on managing data with arrays and objects, using common methods.
- **Introduction to the Document Object Model (30m)**  
Practical overview of the DOM tree, enabling you to understand how browsers render pages.
- **DOM Manipulation: Selecting and Modifying Elements (28m)**  
Step-by-step guide to using JavaScript to change HTML content, styles, and attributes dynamically.
- **Event Handling for User Interactions (22m)**  
Hands-on practice adding click, input, and keyboard events to make pages interactive.
- **ES6+ Features: Arrow Functions and Template Literals (20m)**  
Real case study on modern JavaScript syntax, improving code readability and efficiency.

- **Asynchronous JavaScript with Promises and Async/Await (25m)**  
Problem-solving session on handling asynchronous operations, such as data fetching.
- **Debugging and Error Handling Techniques (18m)**  
Practical guide to using browser tools and try-catch blocks to fix common JavaScript errors.

## **JavaScript Libraries and TypeScript**

- **jQuery Basics: Simplifying DOM Operations (20m)**  
Step-by-step guide to using jQuery for selecting elements and handling events with less code.
- **jQuery Effects and Animations (15m)**  
Hands-on practice adding fade, slide, and custom animations to web pages.
- **jQuery AJAX for Data Fetching (18m)**  
Real case study on retrieving data from APIs using jQuery's AJAX methods.
- **TypeScript Fundamentals: Types and Interfaces (25m)**  
Practical introduction to static typing in TypeScript, defining types and interfaces for safety.
- **Advanced TypeScript: Generics and Modules (30m)**  
Problem-solving session on using generics for reusable code and organizing with modules.
- **Setting Up Webpack for Module Bundling (35m)**  
Step-by-step guide to configuring Webpack to bundle JavaScript, CSS, and assets for production.
- **Module Bundlers: From Development to Production (28m)**  
Hands-on practice optimizing builds with minification, source maps, and code splitting.
- **Integrating TypeScript into Existing Projects (22m)**  
Real case study on migrating JavaScript files to TypeScript incrementally for better reliability.

## **Front-End Frameworks: Vue.js and React**

- **Component-Based Architecture Explained (18m)**  
Practical overview of why components are used in modern frameworks for reusable UI pieces.
- **Vue.js Fundamentals: Components and Data Binding (25m)**  
Step-by-step guide to creating Vue components, using props and two-way data binding.
- **Vue.js State Management with Vuex (30m)**  
Real case study on managing shared state across components using Vuex store patterns.
- **Vue Router for Single-Page Applications (22m)**  
Hands-on practice setting up navigation and routes in a Vue.js application.
- **Building a Complete Vue.js Project (35m)**  
Problem-solving session creating a task manager app with Vue components and routing.
- **React Fundamentals: JSX and Components (25m)**  
Practical introduction to React's JSX syntax and defining functional components.
- **React State and Props Management (20m)**  
Step-by-step guide to passing data with props and managing component state in React.
- **React Hooks: useState and useEffect (28m)**  
Real case study on using hooks to handle side effects and state in functional components.
- **React Router for Navigation (22m)**  
Hands-on practice adding client-side routing with React Router for page transitions.

- **State Management in React with Context API (30m)**  
Problem-solving session using Context API to share state without prop drilling.
- **Performance Optimization in React Applications (25m)**  
Practical guide to memoization, lazy loading, and other techniques to speed up React apps.
- **Comparing Vue and React: Use Cases and Trade-offs (15m)**  
Real case study evaluating when to choose Vue or React based on project needs in 2026.

## Backend Services, Version Control, and Deployment

- **Introduction to Firebase: Services and Setup (20m)**  
Step-by-step guide to setting up a Firebase project and understanding its core services.
- **Firebase Authentication: User Sign-In and Sign-Up (25m)**  
Hands-on practice implementing email/password and Google authentication with Firebase.
- **Cloud Firestore: Real-Time Database Basics (30m)**  
Real case study on structuring and querying data with Firestore for live updates.
- **Integrating Firebase with a Front-End Framework (35m)**  
Problem-solving session connecting Firebase to a Vue or React app for data synchronization.
- **Firebase Hosting for Quick Deployment (18m)**  
Practical guide to deploying web apps using Firebase Hosting with SSL and custom domains.
- **Git Basics: Version Control Fundamentals (22m)**  
Step-by-step guide to initializing repos, committing changes, and viewing history.
- **Git Workflows: Branching and Merging (28m)**  
Hands-on practice using branches for features and merging them without conflicts.
- **GitHub: Collaboration and Pull Requests (25m)**  
Real case study on forking, cloning, and managing pull requests for team projects.
- **Deploying to Cloud Platforms: Netlify and Vercel (20m)**  
Problem-solving session setting up continuous deployment from GitHub to hosting services.
- **Continuous Integration and Deployment Basics (30m)**  
Practical overview of CI/CD pipelines using GitHub Actions for automated testing and deployment.
- **Managing Production Environments (25m)**  
Step-by-step guide to monitoring app performance and scaling with cloud tools in 2026.
- **Project: Full-Stack Web App with Firebase and Git (40m)**  
Apply all skills to build, version-control, and deploy a complete application using Firebase.
- **Course Recap and Next Steps in Web Development (15m)**  
Summary of key concepts and guidance on further learning paths and career opportunities.

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