















Learn the fundamentals of web development.

This course introduces the fundamentals of web development, covering HTML, CSS, and JavaScript. By the end, learners will have the skills to build and structure basic websites and apply essential web design principles.

- Module 1: Introduction to HTML
- Lesson 1.1: Understanding the Structure of a Webpage

HTML (HyperText Markup Language) is the foundation of web development. It structures the content on a webpage, defining elements like headings, paragraphs, images, and links. Without HTML, web pages would not exist.

Every webpage follows a specific structure that consists of essential elements. The head section contains metadata, such as the page title and linked stylesheets, while the body section contains visible content like text, images, and buttons.

The Document Object Model (DOM) represents the page structure as a tree, where each HTML element is a node. Browsers use the DOM to render web pages and apply styling and interactivity.

• Lesson 1.2: HTML Tags and Elements

HTML consists of various tags, each with a unique role in structuring content. Some tags define headings, paragraphs, and lists, while others create tables, forms, and multimedia elements.

Elements in HTML are categorized into block-level and inline elements. Block-level elements take up the full width of their container, starting on a new line, whereas inline elements take up only as much space as needed without breaking onto a new line.

Semantic HTML refers to using meaningful tags that improve accessibility and search engine optimization (SEO). Elements like headers, sections, and articles enhance readability and provide structure for both users and search engines.

• Lesson 1.3: Creating a Basic HTML Document

A well-formed HTML document requires a declaration of the document type, followed by structured elements such as the head and body sections. The head contains metadata, including the document's character encoding, viewport settings for mobile responsiveness, and the page title.

The body contains all the visible content, including headings, paragraphs, images, and navigation elements. Organizing content properly ensures that web pages are easy to read and navigate.



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· Module 2: CSS Basics

· Lesson 2.1: Introduction to CSS and Its Role

CSS (Cascading Style Sheets) enhances the visual appearance of web pages by defining styles for HTML elements. CSS controls layout, colors, fonts, spacing, and other visual properties.

There are three main ways to apply CSS: inline styles (within HTML elements), internal styles (within the head section), and external stylesheets (linked CSS files). Using external stylesheets is the preferred approach for maintaining consistency across multiple pages.

Lesson 2.2: CSS Syntax and Selectors

CSS follows a specific syntax that consists of selectors, properties, and values. Selectors define which elements to style, while properties and values determine how those elements appear.

Different types of selectors exist, including element selectors, class selectors, and ID selectors. Multiple selectors can be combined to target specific elements more precisely. Understanding CSS selectors is essential for applying styles efficiently.

• Lesson 2.3: Styling Text and Backgrounds

CSS allows customization of text properties such as font family, size, weight, and color. Proper typography improves readability and enhances user experience.

Background styles include colors, images, and gradients, which help create visually appealing designs. Additionally, spacing properties such as margins and padding control the positioning of elements on the page.

• Lesson 2.4: Using Classes and IDs for Styling

Classes and IDs provide a way to apply styles to specific elements. Classes are reusable and can be assigned to multiple elements, while IDs are unique and apply to only one element.

CSS specificity determines which styles take precedence when multiple rules apply to the same element. Understanding specificity ensures that styles are applied as intended without conflicts.

• Module 3: JavaScript Overview

• Lesson 3.1: Introduction to JavaScript and Its Importance

JavaScript is a programming language that adds interactivity to web pages. It enables dynamic content, such as interactive forms, animations, and real-time updates.

JavaScript is mainly used on the client side, meaning it runs in the user's browser. However, it can also be used on the server side with technologies like Node js.

• Lesson 3.2: Basic Syntax and Data Types

JavaScript follows a structured syntax that includes statements, variables, functions, and control structures. Understanding the correct syntax is essential for writing error-free code

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Data types in JavaScript include strings, numbers, booleans, arrays, and objects. Each type serves a specific purpose, and using the right data type ensures efficient program execution

• Lesson 3.3: Variables and Operators

Variables store data and can be declared using different keywords, such as var, let, and const. Choosing the right variable type is important for code performance and readability.

Operators perform calculations and comparisons in JavaScript. Arithmetic operators handle mathematical operations, comparison operators compare values, and logical operators evaluate conditions.

· Lesson 3.4: Writing Simple JavaScript Programs

JavaScript enables interactivity by manipulating the DOM. Event listeners allow elements to respond to user actions, such as clicks and key presses.

By combining JavaScript with HTML and CSS, developers can create engaging web pages with dynamic elements, such as dropdown menus, image sliders, and form validations.

• Module 4: Building a Simple Website

• Lesson 4.1: Combining HTML, CSS, and JavaScript

A well-structured website integrates HTML for content, CSS for styling, and JavaScript for interactivity. Understanding how these technologies work together is crucial for creating functional web pages.

HTML provides the content structure, CSS enhances the visual presentation, and JavaScript enables interactive elements like buttons, animations, and real-time updates.

• Lesson 4.2: Creating a Multi-Page Website

Websites often consist of multiple pages linked together. Navigation elements, such as menus and buttons, allow users to move between different sections.

Each page should follow a consistent structure and design to ensure a smooth user experience. Proper navigation improves usability and accessibility.

• Lesson 4.3: Adding Navigation and Links

Navigation bars organize links to different pages, helping users explore the site easily. Links can be internal (within the same site) or external (leading to other websites).

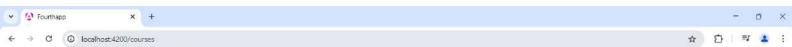
Well-designed navigation enhances the user experience by providing clear pathways to important content. Using semantic HTML elements, such as lists and nav tags, improves accessibility.

• Lesson 4.4: Basic Web Design Principles

Effective web design focuses on layout, color schemes, typography, and accessibility. A well-structured page layout ensures content is easy to read and navigate.

Color schemes influence user perception and brand identity, while typography affects readability and aesthetic appeal. Accessibility features, such as alternative text for images and keyboard navigation, ensure inclusivity for all users.

· Final Project: Building Your First Website



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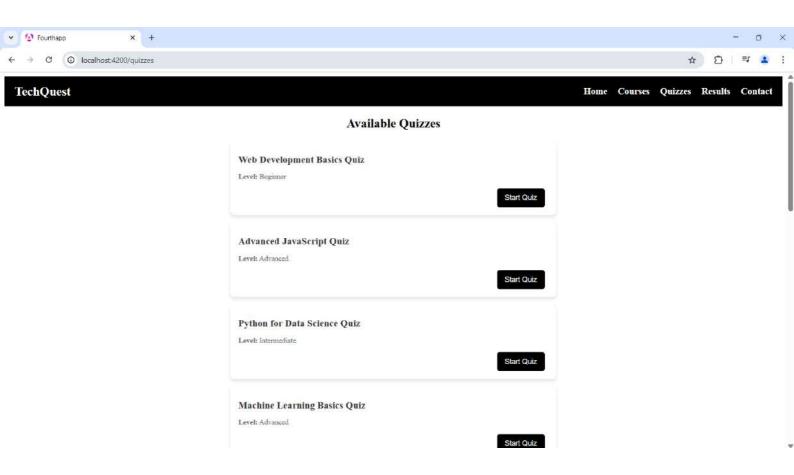
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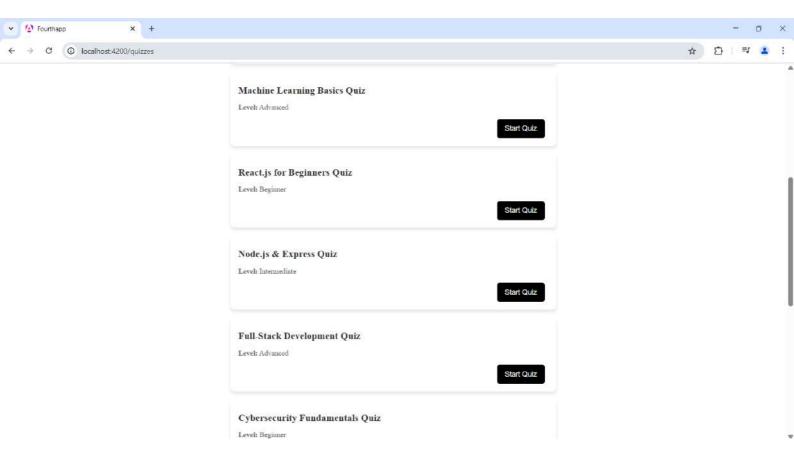
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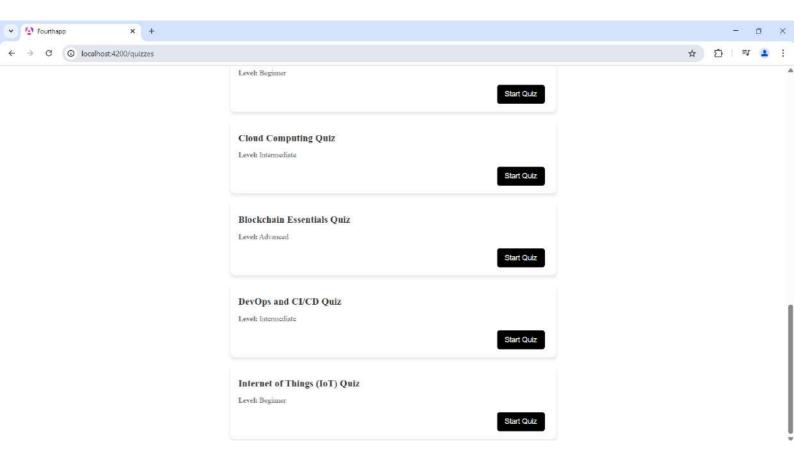
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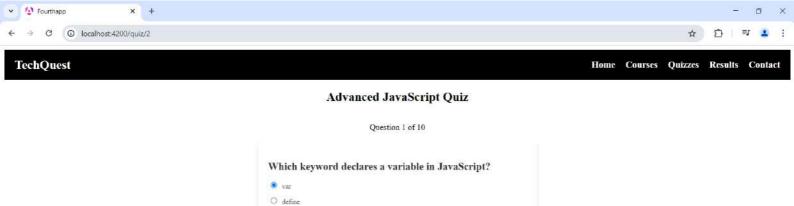
The final project involves creating a complete website using the skills learned throughout the course. This project allows learners to apply their knowledge in a practical setting.

The project should include multiple pages, a navigation menu, styled content, and basic interactive features. By receiving feedback, learners can refine their work and improve their web development skills.

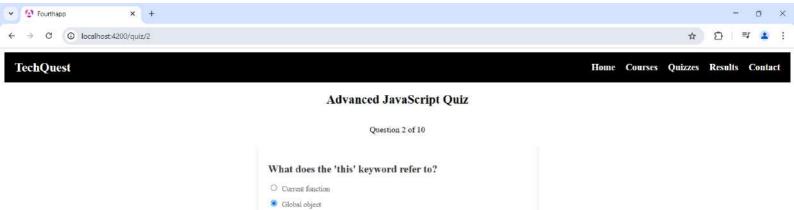




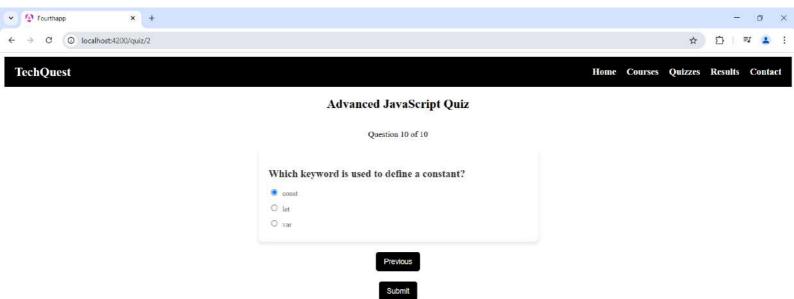




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Quiz ID	Date, Time	Attempt	Quiz Name	Total Questions	Questions Attended	Score
1	3/9/25, 8:30 PM	1	Web Development Basics Quiz	10	10	18
1	3/9/25, 8:35 PM	2	Web Development Basics Quiz	10	0	0
9	3/9/25, 8:37 PM	2	Cloud Computing Quiz	10	9	9
12	3/9/25, 8:43 PM	4	Internet of Things (IoT) Quiz	10	10	7
5	3/9/25, 8:47 PM	1	React.js for Beginners Quiz	10	10	7
10	3/9/25, 9:09 PM	4	Blockchain Essentials Quiz	10	10	8
2	3/9/25, 9:11 PM	1	Advanced JavaScript Quiz	10	10	8
12	3/9/25, 9:16 PM	5	Internet of Things (IoT) Quiz	10	10	6
3	3/9/25, 9:27 PM	1	Python for Data Science Quiz	10	10	7
1	3/9/25, 9:50 PM	11	Web Development Basics Quiz	10	10	10
6	3/9/25, 10:01 PM	1	Node.js & Express Quiz	10	10	10
6	3/9/25, 10:03 PM	2	Node.js & Express Quiz	10	0	0
7	3/9/25, 10:04 PM	1	Full-Stack Development Quiz	10	10	8
8	3/9/25, 10:06 PM	3	Cybersecurity Fundamentals Quiz	10	10	8
1	3/9/25, 10:06 PM	12	Web Development Basics Quiz	10	5	4
4	3/9/25, 10:08 PM	3	Machine Learning Basics Quiz	10	10	8





