

What is front-end web development?

1. Creating the visual and interactive elements of a website that users interact with directly.

Ex: Amazon website

Visual Elements:

Header and Navigation Bar

Product Images

Interactive Elements:

Dropdown Menus

Image Carousel

2. Utilizing HTML, CSS, and JavaScript to build and style web pages.

Ex: Amazon

3. Ensuring websites are responsive and function well on various devices.

Ex: Mobile view, lap view

4. Maintaining cross-browser compatibility for a consistent user experience.

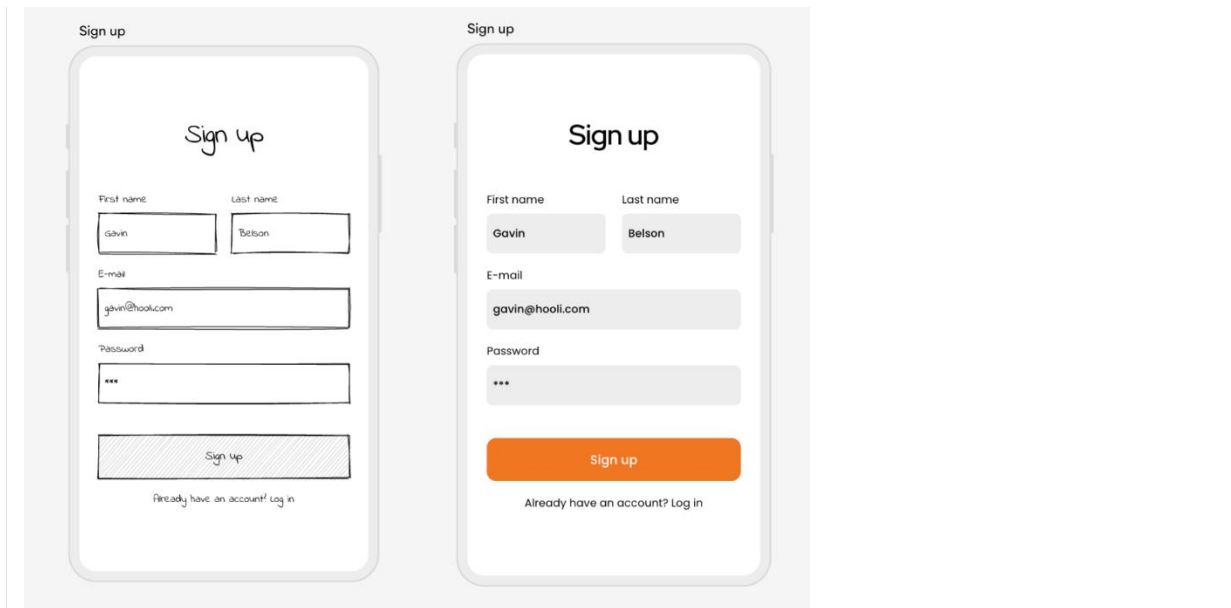
What is the role of a front-end web developer?

1. Converting design mockups and wireframes into functional web pages.

A wireframe is a visual guide that represents the skeletal framework of a website or application



Ex:



2. Enhancing user experience by creating intuitive and interactive interfaces.
3. Implementing interactive elements such as forms, animations, and dynamic content.
4. Optimizing websites for performance and speed.
5. Ensuring cross-browser and cross-device compatibility through thorough testing and debugging

What is HTML?

HTML (HyperText Markup Language) is the standard language for creating web pages and web applications. It provides the structure of a webpage, allowing you to format text, embed images and videos, create links, and more.

History of HTML:

Initial HTML (1991)

- **Description:** Tim Berners-Lee released the first description of HTML with 18 tags.
- **Example Tags:** `<html>`, `<head>`, `<title>`, `<body>`, `<h1>` to `<h6>`, `<p>`, `<a>`, ``.
- **Significance:** These foundational tags allowed for the creation of basic web pages with headings, paragraphs, links, and images.

HTML 2.0 (November 24, 1995)

- **Description:** The first official specification by the Internet Engineering Task Force (IETF).
- **Example Tags:** `<form>`, `<input>`, `<textarea>`, `<select>`, `<option>`, `<button>`.
- **Significance:** Introduced forms, enabling user interaction on web pages through text fields, buttons, and dropdowns.

HTML 3.2 (January 14, 1997)

- **Description:** Released by the World Wide Web Consortium (W3C).
- **Example Tags:** `<table>`, `<tr>`, `<td>`, `<th>`, `<caption>`, ``, `<center>`, `<applet>`.
- **Significance:** Enhanced layout capabilities with tables for structured data and added support for custom fonts and Java applets.

HTML 4.0 (December 18, 1997)

- **Description:** Introduced significant enhancements for multimedia, scripting, and styling.
- **Example Tags:** `<script>`, `<style>`, `<iframe>`, `<object>`, `<param>`, `<abbr>`, `<acronym>`.
- **Significance:** Supported JavaScript for dynamic content, CSS for styling, and iframes for embedding other documents.

HTML 4.01 (December 24, 1999)

- **Description:** A revised version of HTML 4.0 with minor corrections.
- **Example Document Types:** Strict, Transitional, and Frameset.
- **Significance:** Offered different levels of strictness for validation and backward compatibility, ensuring cleaner and more reliable code.

XHTML 1.0 (January 26, 2000)

- **Description:** Reformulated HTML 4.01 in XML.
- **Example Rules:** Tags must be properly nested, closed, and lowercase.
- **Significance:** Ensured well-formed documents for better parsing and integration with XML.

XHTML 1.1 (May 31, 2001)

- **Description:** Further standardization with modularization.
- **Example Use:** Modularization allowed reuse and extension of HTML parts.
- **Significance:** Facilitated the development of more specialized web applications through custom tags and elements.

HTML5 (October 28, 2014)

- **Description:** Introduced new semantic elements and APIs.
- **Example Tags:** `<article>`, `<section>`, `<nav>`, `<header>`, `<footer>`, `<aside>`, `<figure>`, `<figcaption>`, `<audio>`, `<video>`, `<canvas>`.
- **Significance:** Modernized HTML to support multimedia and interactive content natively, improved document structure with semantic tags, and provided APIs for web application development.

HTML5.1 (November 1, 2016)

- **Description:** A refinement of HTML5 with feedback from implementation experiences.
- **Significant Features:**

- `<picture>` element for responsive images.
- `srcset` attribute for `` to specify multiple image sources.
- Improved form controls with new attributes and input types.

HTML5.2 (December 14, 2017)

- **Description:** Added features and updates for better security, accessibility, and performance.
- **Significant Features:**
- `allowfullscreen` attribute for `<iframe>` to control fullscreen permissions.
- `nonce` attribute for inline scripts to enhance security.
- `<dialog>` element for creating native modal dialogs.