

Web Development: A Quick High-Level Intro

What is Web Development?

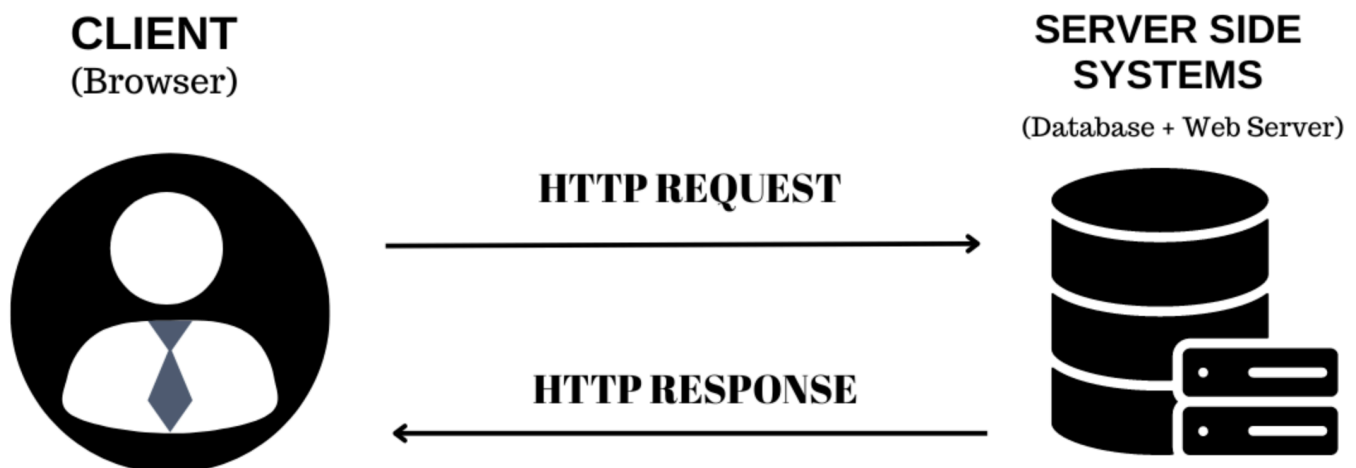
Web development is the process of creating websites and web applications that run on the internet. Think of it as building a digital restaurant experience – from the menu display to the online ordering system.

How Does the Web Work?

Let's imagine you're visiting a restaurant. Here's how that maps to the web:

Please note that the word `server` does not refer to the people serving you food - it is the web server that provides you with content!)

1. **The user (you, as a customer):** You're sitting at a table, ready to order. You use a web browser (like Chrome, Firefox, or Safari) which is like **you calling the restaurant on your phone, or walking in to be seated**.
2. **Web Address (the location of the restaurant):** You know the restaurant's address (like `www.trattoriaitaliana.com`). This is like the URL - the specific location of the restaurant on the web.
3. **Request (ordering from the waiter):** You tell the waiter (or order online) what you want: "I'd like the spaghetti carbonara." This is your browser sending a request to the restaurant's kitchen (the server). The request is the `url` or website address you typed.
4. **Server Response (finished meal - or the reply from the kitchen if something is amiss):** The kitchen (the server) prepares your spaghetti carbonara (the website's files). The waiter then brings it to your table (sends the website's files back to your browser). The files are: `HTML`, `CSS`, `Javascript`.
5. **Display (Eating the Meal = Your Browser Displaying the Website):** You enjoy your delicious spaghetti carbonara. Your browser takes the files received and displays them as the website you see.



The Core Technologies:

- **HTML (The Restaurant Menu):**

- **Purpose:** Provides the *structure* and content of a web page.
- **How it Works:** Like the menu, it describes all the items available (headings, paragraphs, images, links), using tags (elements enclosed in angle brackets, like `<p>` for paragraph).

- **CSS (Restaurant Décor & Style):**

- **Purpose:** Controls the *visual presentation* (style) of a web page.
- **How it Works:** Like the restaurant's decor, it defines how everything looks - the font of the menu, the colors of the walls, the placement of tables, etc.

- **JavaScript (The Waiter + Chef):**

- **Purpose:** Adds *interactivity* and dynamic behavior to a web page.
- **How it Works:** It's how the restaurant responds to your actions - taking your order (handling user input), updating the total bill (updating content), or displaying a special offer (creating animations). It's important to know that the waiter is working at the front end, and the chef is on the back end of an application.

Key Takeaways:

- Web development is about building websites and web applications.
- The web works through a request-response cycle between your browser (the customer) and a server (the restaurant).
- HTML, CSS, and JavaScript are the key ingredients and staff.
- HTML is the menu, CSS is the ambiance, and JavaScript is the staff ensuring everything runs smoothly.

Bon appétit!