

# Chapter 1: Introduction to Web Development (HTML & CSS)

## 1.1 What is Web Development?

Web development refers to the process of creating websites and web applications that run on the internet. It encompasses everything from building static webpages to developing complex, interactive applications. Web developers use various technologies, tools, and programming languages to bring websites to life, ensuring they function smoothly and offer a positive user experience. Web development can be categorized into two main areas:

- **Front-end development:** Focuses on the visual aspects of the website, which users interact with. It involves languages like HTML, CSS, and JavaScript.
- **Back-end development:** Deals with the server-side of the web, including databases, server logic, and APIs.

## 1.2 What is Mobile Development?

Mobile development, on the other hand, is the process of creating applications specifically designed for mobile devices like smartphones and tablets. Unlike web development, which is browser-based, mobile apps are typically built using different technologies and frameworks (such as Swift for iOS or Kotlin for Android). However, with the advent of **responsive design** and **progressive web apps (PWAs)**, web developers increasingly ensure that their websites can be viewed and interacted with seamlessly across both desktop and mobile platforms.

## 1.3 Tools Needed for HTML & CSS Development

When starting out with web development using HTML and CSS, you need a few basic tools:

- **Text Editor:** A simple code editor where you write your HTML and CSS. Popular options include Visual Studio Code, Sublime Text, or even a basic editor like Notepad++.
- **Web Browser:** A browser like Google Chrome, Mozilla Firefox, or Microsoft Edge is essential to view and test your webpages.

- **Developer Tools**: Modern browsers come equipped with developer tools (accessible by pressing F12), allowing you to inspect your code, debug issues, and test responsiveness.
- **Version Control (Optional)**: Tools like Git and GitHub help you track changes in your code and collaborate with others if needed.

## 1.4 Introduction to HTML

**HTML** (HyperText Markup Language) is the backbone of any webpage. It provides the structure and content of the site, defining elements like headings, paragraphs, images, and links. HTML is not a programming language but a markup language. It uses a system of **tags** that surround content, dictating how it should be displayed in a browser.

For example:

**Html**

```
<!DOCTYPE html>
<html>
  <head>
    <title>My First Webpage</title>
  </head>
  <body>
    <h1>Welcome to Web Development!</h1>
    <p>This is a simple webpage.</p>
  </body>
</html>
```

In the example above, HTML tags like ``<h1>`` and ``<p>`` are used to structure the content of the webpage.

## 1.5 Introduction to CSS

**CSS** (Cascading Style Sheets) is the language used to style HTML content. It controls the presentation of a webpage, determining layout, color schemes, fonts, and visual design elements. CSS is essential for creating visually appealing and well-structured websites. By

separating content (HTML) from presentation (CSS), web development becomes more organized and manageable.

A simple CSS example:

**Css**

```
body {  
  font-family: Arial, sans-serif;  
  background-color: #f0f0f0;  
}
```

```
h1 {  
  color: blue;  
  text-align: center;  
}
```

This CSS file will style the HTML example we saw earlier, changing the font, background color, and text alignment.

## 1.6 Why HTML & CSS?

HTML and CSS are the foundation of web development. While HTML provides the skeleton, CSS adds the design and personality to a website. Together, they form the core skills every web developer must master. These technologies are widely supported across all browsers and platforms, making them essential for anyone entering the world of web development.

In the upcoming chapters, we'll dive deeper into the structure of HTML, how to create complex layouts with CSS, and explore advanced topics such as responsive design and CSS animations.