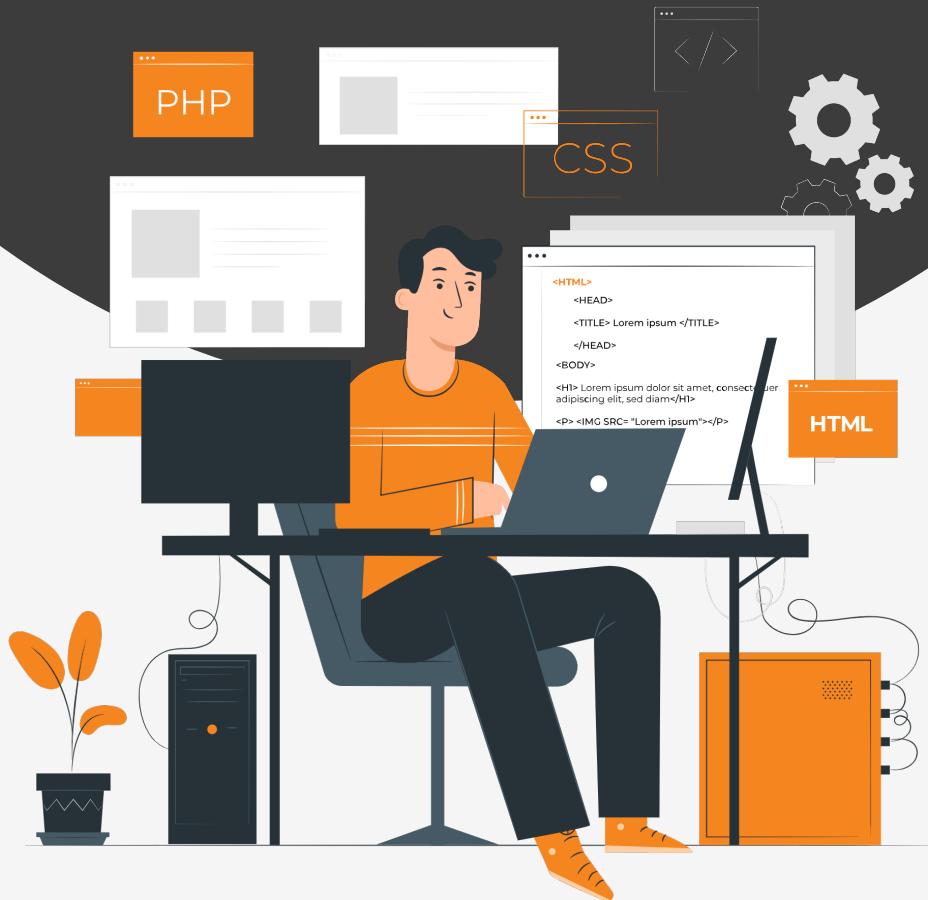


Lesson:

Introduction to CSS



What is CSS

CSS, which stands for Cascading Style Sheets, is the language used to style an HTML file and tell the browser how it should render the elements on the page.

Style sheet - A set of rules that specify the presentation of a document. Style sheets are written by an Author, and interpreted by User Agent, to present the document to the User.

Source document - The document to which one or more style sheets apply. A source document's structure and semantics are encoded using a document language(e.g, HTML, XHTML, or SVG)

Author - An author is a person who writes documents and associated style sheets, An authoring tool is a User Agent that generates style sheets.

User - A user is a person who interacts with a user agent to view, hear or otherwise use the document.

User Agent (UA) - The User-agent basically refers to a browser. User-agent applies default styles as provided by the browser vendor.

Examples include Chrome, Firefox, Safari etc.

Why CSS?

- CSS is a core technology in web development.
- CSS specifies the presentation of HTML documents.
- This includes colors, backgrounds, fonts, spacing, animations, etc.
- It works on all devices: desktop, tablet, mobile, etc.
- CSS is lightweight and relatively easy to learn.
- CSS along with HTML are essential skills for web developers.

What can CSS do?

- You can add new looks to your old HTML documents.
- You can completely change the look of your website with only a few changes in CSS code.

CSS aims to provide web developers with a standard way to define, apply, and manage sets of style characteristics.

Without CSS, all images and text appear left aligned, borders and shading disappear, and text has minimal formatting. CSS can style almost any HTML tag that makes an element visible on a page. HTML tags are used to create titles, paragraphs, links, images, lists, and tables.

Specifically, CSS allows you to style:

- Text size, color, style, font, and alignment
- Link color and style
- Image size and alignment
- List bullet and indent styles
- Size, shading, table borders, and alignment
- CSS styles and position

Brief History of CSS

CSS grew out of the necessity of styling web pages. Before CSS was introduced, people wanted a way to style their webpages which looked all very similar and "academic" back in the day. Not much was possible in terms of personalization.

CSS lets us move everything presentation-related from the HTML to the CSS so that HTML could get back to being the format that defines the structure of the document, rather than how things should look in the browser.

CSS is continuously evolving, and CSS you used 5 years ago might just be outdated, as new CSS techniques emerged and browsers changed. It's hard to imagine the times when CSS was born and how different the web was. At the time, there were several competing browsers, mainly Internet Explorer or Netscape Navigator.

Pages were styled by using HTML, with special presentational tags like `bold` and special attributes, most of which are now deprecated. This meant you had a limited amount of customization opportunities. The bulk of the styling decisions were left to the browser. Also, you built a site for one of them, because each one introduced different non-standard tags to give more power and opportunities.

Soon people realized the need for a way to style pages, in a way that would work across all browsers. After the initial idea was proposed in 1994, CSS got its first release in 1996, when the CSS level 1 recommendation was published, and CSS level 2 got published in 1998. Since then, work began on CSS level 3. The CSS working Group decided to split every feature and work on it separately. The first CSS level 3 module was released in the year 1999.

CSS version

Cascading Style Sheets is a fairly old technology as far as the Web is concerned. CSS has evolved over time through different versions, with each version introducing new features, improvements, and capabilities for web designers and developers.

Here is a brief overview of some of the major versions of CSS

CSS 1

Classic CSS implementation that introduced the text, list, box, margin, border, color, and background properties. Initially defined in 1996, almost every feature of CSS1 is supported in Web browsers, but small quirks do exist around some lesser-used features like `white space`, `letter-spacing`, `display`, and others. Some problems with CSS1 support are more significant in older, pre-internet Explorer 7 browsers.

CSS 2

The specification is primarily known for positioning and media, particularly print-style sheet features. Many aspects of CSS2, such as aural style sheets, were never widely implemented and were removed in a later iteration of the CSS specification.

CSS 2.1

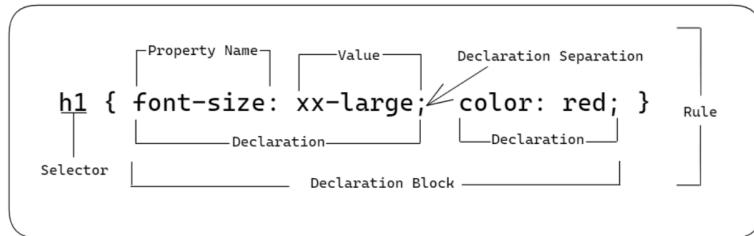
This was a revision of CSS2 and was released in 2004. It clarified and improved the CSS2 specification, fixing inconsistencies and adding new features, but it did not introduce any major changes.

CSS3

This version of CSS is not a single release but rather a collection of modules that are developed and released independently. CSS3 introduces a wide range of new features and capabilities, including advanced selectors, gradients, shadows, animations, transitions, and more. Some of the modules in CSS3 include Selectors, Box Model, Backgrounds and Borders, Text Effects, and Transform

Anatomy Structure of CSS

The anatomy of Cascading Style Sheets (CSS) refers to the different components or parts that make up CSS and how they work together to style web pages.



Here are the Anatomy structure key components of the CSS –

Selector -

CSS selectors define the pattern to select elements to which a set of CSS rules are then applied. CSS selectors can be grouped into the following categories based on the type of elements they can select. The categories can be Basic selectors, Group selectors, Combinators, Pseudo-classes, and pseudo-elements.

Properties -

A property is a CSS attribute that defines the aspect of an HTML element to be styled. It could be the font size, color, margin, padding, or background

Value -

value is the setting for a CSS property. It can be a specific color, size, or other values that determine the appearance of the element

Declaration -

A declaration is a combination of a property and its corresponding value. It defines a specific style for an HTML element

Rule -

A CSS rule consists of a selector and its associated declaration block. It defines the styles to be applied to the selected element(s).