

Experiment: 1

Aim: To study and compare the different versions of HTML and CSS.

Theory:

HTML (Hypertext Markup Language)

The versions of HTML represent standardized improvements to the foundational language for the World Wide Web. As new technologies are developed and more efficient methods to achieve desired web page results evolve, developers and administrators settle on accepted language standards and then designate them using numbers to bring order and uniformity to the web.

HTML 1.0

- The basic version of HTML has support for basic elements like text controls and images. This was the very basic version of HTML with less support for a wide range of HTML elements. It does not have rich features like styling and other things that were related to how content will be rendered in a browser.
- The initial version of HTML does not provide support for tables, font support, etc., as it provides us in the latest version.
- W3C did not exist before HTML 2.0; hence it does not show details about HTML 1.

HTML 2.0

- HTML version 2.0 was developed in 1995 with basic intention of improving HTML version 1.0
- A standard got setup to develop so as to maintain common rules and regulations across different browsers. HTML 2.0 has improved a lot in terms of the markup tags. In HTML 2.0 version concept of form came into force. Forms were developed, but still, they had basic tags like text boxes, buttons, etc.
- The table came as an HTML tag. Now, in HTML tag 2.0, browsers also came with the concept of creating their own layers of tags that were specific to the browser itself. W3C was also formed. The main intention of W3C is to maintain standard across different web browsers so that these browsers understand and render HTML tags in a similar manner.

HTML 3.2

- It was developed in 1997. After HTML 2.0 was developed, the next version of HTML was 3.2
- With version 3.2 of HTML, HTML tags were further improved. Due to W3C standard maintenance, the newer version of HTML was 3.2 instead of 3.
- Now, HTML 3.2 has better support for new form elements. Another important feature what HTML 3.2 implemented was support for CSS. CSS stands for [Cascading Style Sheet](#). It is CSS that provides features to make HTML tags look better on rendering it on browsers. CSS helps to style HTML elements.
- With the upgradation of browsers to HTML 3.2, the browser also supported for [frame tags](#), although HTML specifications still do not support frame markup tags.

HTML 4.01

- It was developed in 1999. It extended the support of cascading styling sheets. In version 3.2, CSS were embedded in HTML page itself. Therefore, if the website has various web pages to apply to the style of each page, we must place CSS on each web page. Hence there was a repetition of the same block of CSS.
- To overcome this thing, in version 4.01 concept of an external styling sheet emerged. Under this concept, an external CSS file could be developed, and this external styling file could be included in HTML itself. HTML 4.01 provided support for further new tags of HTML.

HTML 5

This is the latest version of HTML. It added support for many new HTML tags. HTML5 provided support for new form elements like input elements of different types; geolocations support tags, etc. Some examples of new tags added in HTML 5.0 are:

- Section tag – This tag is used to semantic a section in an HTML page. A section tag represents a section on a web page.
- Email tag – New HTML5 tag, which was added, is the input element of type email. This is a form tag, although it could be used outside of a form tag also. This tag checks the validation of the input value. It checks whether the value inserted is a valid email.
- Audio tag – This is a new audio tag that was implemented in HTML5. This tag helps to add audio to our web page. We can use this tag to embed an audio clip into a web page. This audio tag could be played on a webpage.

CSS (Cascading Style Sheet)

CSS 1

The first CSS specification to become an official W3C Recommendation is CSS level 1, published on December 17, 1996. Among its capabilities are support for

- Font properties such as typeface and emphasis
 - Color of text, backgrounds, and other elements
 - Text attributes such as spacing between words, letters, and lines of text
 - Alignment of text, images, tables and other elements
 - Margin, border, padding, and positioning for most elements
 - Unique identification and generic classification of groups of attributes
- The W3C no longer maintains the CSS 1.

CSS 2

CSS level 2 specification was developed by the W3C and published as a recommendation in May 1998. CSS 2 includes a number of new capabilities like absolute, relative, and fixed positioning of elements and z-index, the concept of media types, support for aural style sheets (which were later replaced by the CSS 3 speech modules) and bidirectional text, and new font properties such as shadows. The W3C no longer maintains CSS 2.

CSS 3

Unlike CSS 2, which is a large single specification defining various features, CSS 3 is divided into several separate documents called "modules". Each module adds new capabilities or extends features defined in CSS 2, preserving backward compatibility. Work on CSS level 3 started around the time of publication of the original CSS 2 recommendation. The earliest CSS 3 drafts were published in June 1999.

CSS 4

There is no single, integrated CSS4 specification, because the specification has been split into many separate modules which level independently. Some of them have already reached Level 4 or are already approaching Level 5. Other modules that define entirely new functionality, such as Flexbox, have been designated as Level 1 and some of them are approaching Level 2.

Conclusion:

Features	HTML 1.0	HTML 2.0	HTML 3.2	HTML 4.01	HTML 5
inline images and text controls	supported	supported	supported	supported	supported
forms	not supported	supported	supported	supported	supported
changing page background	not supported	supported	supported	supported	supported
tables	not supported	supported	supported	supported	supported
complex mathematical equations	not supported	not supported	supported	supported	supported
CSS support	not supported	supported	supported	supported	supported
sophisticated form elements	not supported	not supported	not supported	supported	supported
stylesheets and scripting for multimedia elements	not supported	not supported	not supported	supported	supported
email / section /audio tags	not supported	not supported	not supported	not supported	supported

Features	CSS 1.0	CSS 2.0	CSS 3.0	CSS 4.0
absolute, relative and fixed positioning	supported	supported	supported	supported
z-index	supported	supported	supported	supported
media types	supported	supported	supported	supported
aural stylesheets	not supported	supported	not supported	not supported
specification divided into modules	Yes	Yes	Yes	yes
Flexbox	not supported	not supported	not supported	supported

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