

HTML & JavaScript

Subject:

Internet Technology

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Difference Between HTML 4 and HTML 5

| HTML 4 | HTML 5 |
|--|--|
| It was an difficult task to get the geographical locations of the visitors visiting the site | It is extremely easy to get the user location of the visitors visiting the site. |
| The communication between the client and server was done through streaming and long polling | HTML5 contains web sockets that allow full duplex communication between clients and servers |
| HTML4 contained an <applet> tag that was used for displaying applets in a web browser | In order to display applet type items, a new <object> tag has been introduced in HTML5 |
| HTML4 contained an <acronym> tag that was used for displaying abbreviation's in a web browser | This tag has been removed. A new <abbr> tag has been introduced in HTML5 |
| The <hr> tag was used to draw a line in HTML4 and all the previous versions of HTML. | The functionality of this tag has been changed and it is used for defining a thematic break in the web page. |
| The <a> tag was used as anchor as well as for referring to a link, | the <a> tag is used only as a hyperlink. But if the href tag is removed from the <a> tag, the <a> tag can be used as a place holder for other hyperlinks |
| The <meta> tag is defined in the header section of the HTML document and contains information about the data | In HTML5, <meta> tag has been removed. |
| In HTML 4, script attribute was used to in link tag to refer to JavaScript or other similar scripts | In HTML5 It is not necessary to use that script attribute. |
| In HTML4 the <table> tag can had many attribute. | In HTML5, the <table> tag can only have one attribute Border and the value of this attribute can only be zero or one |

| | |
|---|--|
| <p>HTML 4 does not contain following tags:</p> <p><canvas></p> <p><video></p> <p><audio></p> <p><article></p> <p><main></p> <p><mark></p> | <p>HTML 5 does not contain following tags:</p> <p><canvas></p> <p><video></p> <p><audio></p> <p><article></p> <p><main></p> <p><mark></p> |
| <p>In HTML4, in order to store important data on client side, browser's cache was used.</p> | <p>In HTML5, this issue has been addressed via Web SQL database and application cache that can be access via HTML5's JavaScript interface.</p> |
| <p>In HTML4, JavaScript and the browser interface with which user interacts, run in the same thread which affects performance.</p> | <p>HTML5 contains JS Web Worker API which allows JavaScript and Browser interface to run in separate threads.</p> |
| <p>HTML4 does not supports form controls, for example: dates and times, email, number, range, tel, url, search etc.</p> | <p>HTML5 supports new kinds of form controls, for example: dates and times, email, number, range, tel, url, search etc.</p> |
| <p>Inline MathML and SVG can not be used in text.</p> | <p>In HTML5, inline MathML and SVG can be used in text.</p> |
| <p>HTML4 is not based on SGML.</p> | <p>HTML5 is not based on SGML, and that allows it to have improved parsing rules which provide enhanced compatibility.</p> |
| <p>HTML4 is an established standard for developing browser applications and has been in use for more than 10 years. For this reason, HTML4 is compatible with almost all web-browsers</p> | <p>HTML5 is still in the process of evolution and the currently available tags are being modified and also new tags are being added. Therefore, HTML5 lags behind HTML4 in terms of compatibility with the browsers.</p> |

Media Query

A media query is an HTML/CSS functionality that allows the content of a Web page to adapt to the type of media that the page is being rendered in, such as a computer screen or that of a phone or tablet. This is considered as a core technology for implementing responsive Web design and was recommended for implementation as a standard in June of 2012 together with other CSS3 functionalities.

Media queries consist of a media type along with one or more expressions that conditionally check for certain media features, particularly that of screen sizes. The logical expressions in a media query can be either true or false; it is true if the media type of the query matches that of the media type of the device where the user agent (Web browser) is running on; otherwise, it is false. When the media query results to true, then the corresponding style rules specified will be applied, following normal cascading rules. It must be noted that, even if the query results to false, style sheets specified within the `<link>` tag are still downloaded, but are simply not applied.

We can use the CSS media query for changing the web page width and related elements to offer the best viewing experience for the user on different devices.

The style rules will automatically change the width of the container element based on the screen or viewport size. For example, if the viewport width is less than 768 pixels it will cover the 100% of the viewport width, if it is greater than the 768 pixels but less than the 1024 pixels it will be 750 pixels wide, and so on.

We can also use the CSS media query for making your multi-column website layout more adaptable and responsive for devices through little customization.

The style rule will create a two column layout if the viewport size is greater than or equal to 768 pixels, but if less than that it'll be rendered as one column layout.

Example

If the browser window is 600px or smaller, the background color will be light blue:

```
@media only screen and (max-width: 600px) {  
  body {  
    background-color: light blue;  
  }  
}
```