

Limitations of HTML 4

1. Audio support- You can't add Add audio to a web page with a single tag in HTML4
2. Using JavaScript for animation, drawing and other feature was the toughest task.
3. Video Support- Unable to add Video with a single tag in the website.
4. 2-3D Supports- Does not support 2D and 3D animations.
5. Very few input controls are available.

Advantages of HTML 5

1. HTML5 promotes Accessibility
2. HTML5 provides support for both Video and Audio
3. HTML5 eliminates the need for Cut and Paste with the doctype
4. HTML5 presents cleaner – and therefore more attractive – Code
5. HTML5 allows for Improved Interactions
6. HTML5 also allows for Game Development
7. HTML5 provides support for Legacy and Cross Browsers
8. HTML5 is right up there with Mobile Technology

Difference between HTML & HTML5

HTML	HTML5
It didn't support audio and video without the use of flash player support.	It supports audio and video controls with the use of <audio> and <video> tags.
It uses cookies to store temporary data.	It uses SQL databases and application cache to store offline data.
Does not allow JavaScript to run in browser.	Allows JavaScript to run in background. This is possible due to JS Web worker API in HTML5.
Vector graphics is possible in HTML with the help of various technologies such as VML, Silver-light, Flash, etc.	Vector graphics is additionally an integral a part of HTML5 like SVG and canvas.
It does not allow drag and drop effects.	It allows drag and drop effects.
Not possible to draw shapes like circle, rectangle, triangle etc.	HTML5 allows to draw shapes like circle, rectangle, triangle etc.
It works with all old browsers.	It supported by all new browser like Firefox, Mozilla, Chrome, Safari, etc.
<HTML>, <Body>, and <Head> tags are mandatory while writing a HTML code.	These tags can be omitted while writing HTML code.
Older version of HTML are less mobile-friendly.	HTML5 language is more mobile-friendly.
Doctype declaration is too long and complicated.	Doctype declaration is quite simple and easy.
Elements like nav, header were not present.	New element for web structure like nav, header, footer etc.
Character encoding is long and complicated.	Character encoding is simple and easy.

It is almost impossible to get true Relocation of user with the help of browser.

It cannot handle inaccurate syntax.

Being an older version, it is not fast, flexible, and efficient as compared to HTML5.

Attributes like charset, a sync and ping are absent in HTML.

One can track the relocation of a user easily by using JS relocation API.

It is capable of handling inaccurate syntax.

It is efficient, flexible and faster in comparison to HTML.

Attributes of charset, a sync and ping are a part of HTML 5.

New Features of HTML5?

1. Video and Audio Features
2. Header and Footer
3. Input tag kinds have been expanded.
4. Figure and figcaption
5. Placeholders
6. Preload Videos
7. Controlling the display
8. Regular Expressions
9. Adaptability
10. Elements that appear inline
11. Support for Dynamic Pages
12. Email as a property
13. Cryptographic Nonce
14. Reverse Links
15. Images with a width of zero
16. Canvas in HTML5

CSS units

The length unit in [CSS](#) is of two types:

1. Absolute length.

These are the fixed-length units, and the length expressed using the absolute units will appear as exactly that size.

It is not recommended to use on-screen, because the size of the screen varies too much.

So, the absolute units should be used when the medium of output is known, such as the print layout.

Absolute units are useful when the responsiveness is not considered in a project.

They are less favourable for the responsive sites because they do not scale when the screen changes.

Absolute length.

Unit	Name	Explanation
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Cm	Centimeters	It is used to define the measurement in centimeters.
Mm	Millimeters	It is used to define the measurement in millimeters.
In	Inches	It is used to define the measurement in inches. 1in = 96px = 2.54cm
Pt	Points	It is used to define the measurement in points. 1pt = 1/72 of 1 inch.
Pc	Picas	It is used to define the measurement in picas. 1pc = 12pt so, there 6 picas is equivalent to 1 inch.
Px	Pixels	It is used to define the measurement in pixels. 1px = 1/96th of inch

Relative length.

Unit	Name
Em	It is relative to the font-size of the element.
Ex	It is relative to the x-height of the font of the element. It is rarely used. The x-height is determined by the height of the lowercase letter 'x'.
Ch	It is similar to the unit ex, but instead of using the height of the letter x, it measures the width of the integer "0" (zero).
Rem	It is the font-size of the root element
Vh	It is relative to the height of the viewport. 1vh = 1% or 1/100 of the height of the viewport.
Vw	It is relative to the width of the viewport. 1vw = 1% or 1/100 of the width of viewport
Vmin	It is relative to the smaller dimension of the viewport. 1vmin = 1% or 1/100 of the viewport's smaller dimension.
Vmax	It is relative to the larger dimension of the viewport. 1vmax = 1% or 1/100 of the viewport's larger dimension.
%	It is used to define the measurement as a percentage that is relative to another value.

Relative units are good to style the responsive site because they scale relative to the window size.

They specify the length, which is relative to another length property.

Depending on the device, if the size of the screen varies too much, then the relative length units are the best because they scale better between the different rendering mediums. We can use the relative units as the default for the responsive units. It helps us to avoid update styles for different screen sizes.