

HTML5 | Introduction

Introduction: HTML stands for Hyper Text Markup Language. It is used to design web pages using markup language. HTML is the combination of Hypertext and Markup language. Hypertext defines the link between the web pages. Markup language is used to define the text document within tag which defines the structure of web pages. HTML 5 is the fifth and current version of HTML. It has improved the markup available for documents and has introduced application programming interfaces(API) and Document Object Model(DOM).

Features:

- It has introduced new multimedia features which supports audio and video controls by using `<audio>` and `<video>` tags.
- There are new graphics elements including vector graphics and tags.
- Enrich semantic content by including `<header>` `<footer>`, `<article>`, `<section>` and `<figure>` are added.
- Drag and Drop- The user can grab an object and drag it further dropping it on a new location.
- Geo-location services- It helps to locate the geographical location of a client.
- Web storage facility which provides web application methods to store data on web browser.
- Uses SQL database to store data offline.
- Allows to draw various shapes like triangle, rectangle, circle, etc.
- Capable of handling incorrect syntax.
- Easy DOCTYPE declaration i.e. `<!doctype html>`
- Easy character encoding i.e. `<meta charset="UTF-8">`

New Added Elements in HTML 5:

- **<article>**: The `<article>` tag is used to represent an article. More specifically, the content within the `<article>` tag is independent from the other content of the site (even though it can be related).
- **<aside>**: The `<aside>` tag is used to describe the main object of the web page in a shorter way like a highlighter. It basically identifies the content that is related to the primary content of the web page but does not constitute the main intent of the primary page. The `<aside>` tag contains mainly author information, links, related content and so on.

- **<figure>**: The <figure> tag in HTML is used to add self-contained content like illustrations, diagrams, photos or codes listing in a document. It is related to main flow but it can be used in any position of a document and the figure goes with the flow of the document and if remove it then it should not affect the flow of the document.
- **<header>**: It contains the section heading as well as other content, such as a navigation links, table of contents, etc.
- **<footer>**: The <footer> tag in HTML is used to define a footer of HTML document. This section contains the footer information (author information, copyright information, carriers etc). The footer tag are used within body tag. The <footer> tag is new in the HTML 5. The footer elements require a start tag as well as an end tag.
- **<main>**: Delineates the main content of the body of a document or web app.
- **<nav>**: The <nav> tag is used to declaring the navigational section in HTML documents. Websites typically have sections dedicated to navigational links, which enables user to navigate the site. These links can be placed inside a nav tag.
- **<svg>**: It is the Scalable Vector Graphics.
- **<canvas>**: The <canvas> tag in HTML is used to draw graphics on web page using JavaScript. It can be used to draw paths, boxes, texts, gradient and adding images. By default it does not contains border and text.
- **<audio>**: It defines the music or audio content.
- **<embed>**: Defines containers for external applications (usually a video player).
- **<source>**: It defines the sources for <video> and <audio>.
- **<track>**: It defines the tracks for <video> and <audio>.
- **<video>**: It defines the video content.

Advantages:

- All browsers supported.
- More device friendly.
- Easy to use and implement.
- HTML 5 in integration with CSS, etc can help build beautiful websites.

Disadvantages:

- Long codes have to be written which is time consuming.
- Only modern browsers support it.

