

¿QUÉ ES HTML5?

- HTML 5 = HTML + CSS + JavaScript
 - https://www.w3schools.com/html/html5_intro.asp
- Es el nuevo estándar para HTML, XHTML y HTML DOM
- Estándar W3C desde octubre 2014
- Reglas para su especificación:
 - Toda característica nueva debe basarse en HTML, CSS, DOM y JavaScript
 - Reducir la necesidad de plugins externos (p.ej.: Flash)
 - Mejor manejo de errores
 - Más etiquetas para evitar tanto scripting
 - Independiente del dispositivo



CARACTERÍSTICAS ADAPTADAS A LAS NUEVAS NECESIDADES

- Nuevos elementos específicos sobre estructura del documento:
 - *header, nav, article, section, aside, footer*
- Nuevos controles para los formularios
 - *date, time, email, url, search...*
- Tag para video y audio
- Canvas (lienzo) para dibujar
- Uso de SVG: crear gráficos vectoriales
- Mejor soporte al almacenamiento local offline: *SQLite*
- API para geolocalización para JavaScript que permite obtener la localización del usuario si éste (y su dispositivo) lo permite
- Web storage



EJEMPLO DE ESTRUCTURA

<header></header>


<nav></nav>

<article></article>

<section></section>


<aside></aside>

<footer></footer>



ALGUNAS DE LAS NUEVAS ETIQUETAS


Tag	Description
<article>	Specifies independent, self-contained content, could be a news-article, blog post, forum post, or other articles which can be distributed independently from the rest of the site.
<aside>	For content aside from the content it is placed in. The aside content should be related to the surrounding content
<bdi>	For text that should not be bound to the text-direction of its parent elements
<command>	A button, or a radiobutton, or a checkbox
<details>	For describing details about a document, or parts of a document
<summary>	A caption, or summary, inside the details element
<figure>	For grouping a section of stand-alone content, could be a video
<figcaption>	The caption of the figure section
<footer>	For a footer of a document or section, could include the name of the author, the date of the document, contact information, or copyright information
<header>	For an introduction of a document or section, could include navigation
<hgroup>	For a section of headings, using <h1> to <h6>, where the largest is the main heading of the section, and the others are sub-headings
<mark>	For text that should be highlighted
<meter>	For a measurement, used only if the maximum and minimum values are known
<nav>	For a section of navigation
<progress>	The state of a work in progress
<ruby>	For ruby annotation (Chinese notes or characters)
<rt>	For explanation of the ruby annotation
<rp>	What to show browsers that do not support the ruby element
<section>	For a section in a document. Such as chapters, headers, footers, or any other sections of the document
<time>	For defining a time or a date, or both
<wbr>	Word break. For defining a line-break opportunity.



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NUEVOS ELEMENTOS MULTIMEDIA

Tag	Description
<audio>	For multimedia content, sounds, music or other audio streams
<video>	For video content, such as a movie clip or other video streams
<source>	For media resources for media elements, defined inside video or audio elements
<embed>	For embedded content, such as a plug-in
<track>	For text tracks used in mediaplayers



EJEMPLO VIDEO

```
<video width="320" height="240" controls="controls">  
  <source src="movie.mp4" type="video/mp4" />  
  <source src="movie.ogg" type="video/ogg" />  
  Your browser does not support the video tag.  
</video>
```

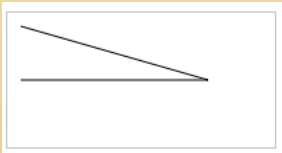


http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_video_bear

EL ELEMENTO CANVAS

```
<!DOCTYPE html>
<html>
<body>
  <canvas id="myCanvas" width="200" height="100">
    Your browser does not support the canvas element.
  </canvas>

  <script type="text/javascript">
    var c = document.getElementById("myCanvas");
    var cxt = c.getContext("2d");
    cxt.moveTo(10,10);
    cxt.lineTo(150,50);
    cxt.lineTo(10,50);
    cxt.stroke();
  </script>
</body>
</html>
```



NUEVOS CAMPOS DE FORMULARIO

Tag	Description
<datalist>	A list of options for input values
<keygen>	Generate keys to authenticate users
<output>	For different types of output, such as output written by a script



EJEMPLO DATALIST

```
Webpage: <input type="url" list="url_list" name="link" />
<datalist id="url_list">
  <option label="W3Schools" value="http://www.w3schools.com" />
  <option label="Google" value="http://www.google.com" />
  <option label="Microsoft" value="http://www.microsoft.com" />
</datalist>
```



https://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_datalist

NUEVOS TIPOS DE INPUTS

Type	Description
tel	The input value is of type telephone number
search	The input field is a search field
url	The input value is a URL
email	The input value is one or more email addresses
datetime	The input value is a date and/or time
date	The input value is a date
month	The input value is a month
week	The input value is a week
time	The input value is of type time
datetime-local	The input value is a local date/time
number	The input value is a number
range	The input value is a number in a given range
color	The input value is a hexadecimal color, like #FF8800
placeholder	Specifies a short hint that describes the expected value of an input field

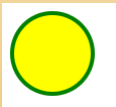


SVG (SCALABLE VECTOR GRAPHIC)

```
<!DOCTYPE html>
<html>
<body>

<svg width="100" height="100">
  <circle cx="50" cy="50" r="40"
    stroke="green" stroke-width="4" fill="yellow" />
</svg>

</body>
</html>
```



LOCALSTORAGE Y SESSIONSTORAGE

- Almacenes de datos en *window*
 - Almacena pares clave/valor: *setItem*, *getItem*, *removeItem* y *clear*
 - Permiten el acceso mediante sintaxis abreviada

```
<HTML>
<HEAD>
  <script type="text/javascript">
    if (! localStorage.visitas) localStorage.visitas = 1;
    else localStorage.visitas = Number(localStorage.visitas) + 1;

    if (! sessionStorage.visitas) sessionStorage.visitas = 1;
    else sessionStorage.visitas = Number(sessionStorage.visitas) + 1;

    document.write("Visitas totales " + localStorage.visitas + "<br>");
    document.write("Visitas en sesión " + sessionStorage.visitas);
  </script>
</HEAD>
<BODY>
</BODY>
</HTML>
```

