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Plan de Recuperación, Transformación y Resiliencia
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Web Applications: HTML 5

[1]

Introduction to HTML 5

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1. HTML Language

- *HTML means: HypertextMarkupLanguage*

- HTML is a tag language (It is not a programming languaga)

- It allows describe hipertext (Structured text with links attached to other documents, media resources and other related elements)

W3C® WORLD WIDE WEB consortium

1. HTML Language

➢ HTML versions

- HTML 1.0 (1991)

  - Tim Berners-Lee invented HTML at CERN to share information betwwen scientist community.

  - Implements 20 tags (13 of them still exists)

  - First navegator: Nexus

1. HTML Language

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  - Tim Berners-Lee invented HTML at CERN to share information betwwen scientist community.
  - Implements 20 tags (13 of them still exists)
  - First navegator: Nexus
- HTML 2.0 (1994)
  - First official specification
  - 19 new tags

1. HTML Language

HTML versions

- HTML 3.2 (1994)
  - Adds new resources like tables, maps, etc.
  - It appears CSS language
  - Navegators: Internet Explorer (1996)
- HTML 4.01 (1999)
  - Includes CSS latest version and dissapears old CSS tags
  - Improves font appareance, backgrounds and colors

1. HTML Language

➢ HTML versions

- XHTML 1.0 (2000)
  - New HTML version with XML rules.
  - It includes W3C Markup validators.
- HTML5 (2014)
  - It is not still an standard
  - It includes semantic tags and APIs
  - Improves the form tag
  - Dissapears not used tags and format attributes.
  - **The <center> tag is not supported in HTML5. Use CSS3 instead.**

2. HTML Tags

A HTML document is created with tags.

- A tag is built with one or more reserved words *(A reserved word is a special word of a programming language that cannotbe used as a name)*

- Tags are closed with the symbols **<** and **>** : **`<tag>`**

- Most of the words need a close tag: **`</tag>`**

- Tags commonly appears as: **`<tag> text </tag>`**

2.1 Format

- What about self-closing tags?: There are quite a few tags that don’t require end tags: br, img, video, and more.

- Tags with an opening and end must be well balanced. The following is considered balanced:

  The <i>quick</i> brown fox jumps over the <b>lazy</b> dog

  That is, the opening of each tag (ie. <i> or <b>) is followed by the closing of each tag (ie. </i> or </b>).

- The following, however, is not balanced:

  The <i><u>quick</i></u> brown fox jumps over the <b>lazy</b> dog

  In this example, the <u> tag is followed by the </i> closing tag before it encounters its corresponding </u> closing tag, and is thus considered unbalanced.

2.2 Attributes

- HTML attributes provide additional information about HTML elements.
- Attributes are always specified in the start tag.
- Attributes usually come in name/value pairs like: name=”value”

```
<tag 1stAttribute="value” 2ndAttribute=“value”> elemento </tag>
```

For example: `<img src=”car.jpg” />`

2.3 Style & Comments

Style Tag

- The style attribute is used to add styles to an element, such as color, font, size, and more.

  For example: <bodystyle="background-color=aqua;">

- The style **property:value** is a CSS value

Comments

- In HTML, a comment is text enclosed within < ! ·· ··> tags.
- Comments are not displayed in the browser, but they can help document your source code.

  For example: `<!--…This is an example… -->`

3. HTML Structure

A Simple HTML Document

```
<!DOCTYPE html>
<html>
        <head>
                <title>Page Title</title>
        </head>
        <body>
                <h1>My First Heading</h1>
                <p>My first paragraph.</p>
        </body>
</html>
```

3. HTML Structure

- The document must have **.html extension.**

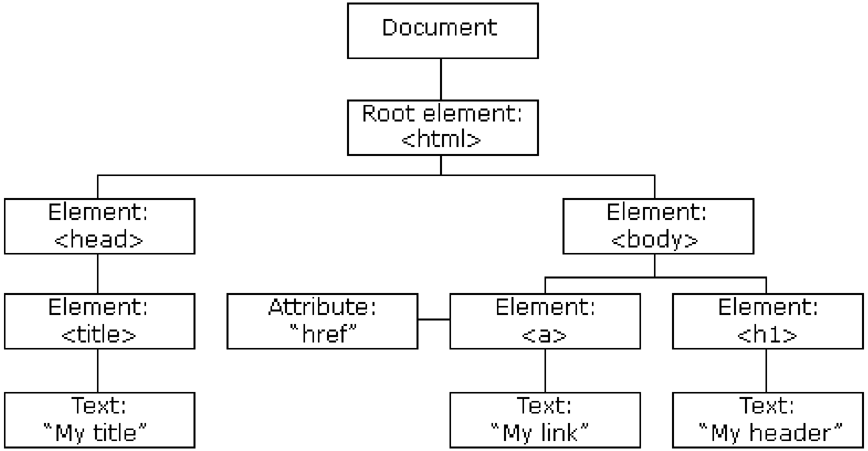
- **<html> & </html**> tags at the beggining and the end of the document

- The <html> element follows the doctype information, which is used to inform the browser that this is an HTML document.

3. HTML Structure

The HTML DOM is an Object Model for HTML. It defines:

- HTML elements as objects
- Properties for all HTML elements
- Methods for all HTML elements
- Events for all HTML elements



3.1 Head

- The <head> element contains metadata (document title, styles, links, scripts), specific information about the web page that is not displayed to the user.

- It can contains the following tags:

<title>
<style>
<meta>
<link>
<script>
<base>

3.1 Head

- The **<title>** tag is an HTML code tag that allows you to give a web page a title.

- This title can be found in the browser title bar, as well as in the search engine results pages (SERP).

- It's crucial to add and optimise your website's title tags, as they play an essential role in terms of organic ranking (SEO).

- Here are some tips for creating good titles:

  Go for a longer, descriptive title (avoid one- or two-word titles)

  Search engines will display about 50-60 characters of the title, so try not to have titles longer than that.

3.1 Head

- The <meta> tag defines metadata about an HTML document. Metadata is data (information) about data.

- <meta> tags always go inside the <head> element, and are typically used to specify character set, page description, keywords, author of the document, and viewport settings.

- <meta http-equiv=”refresh” content=”seconds;URL=newURL”>

This tag sends the user to a new URL after a certain amount of time, and is sometimes used as a simple form of redirection.

3.2 Body

- The <body> tag defines the main content of an HTML document which displays on the browser. It can contain text content, paragraphs, headings, images, tables, links, videos, etc.

- The <body> must be the second element after the <head> tag or it should be placed between </head> and </html> tags. This tag is required for every HTML document and should only use once in the whole HTML document.

- There can only be one <body> element in an HTML document.

4. Text

- There are multiple text tags. The most important are:

Tag	Meaning
<p></p>	The <p> tag defines a paragraph. It includes 2 blank lines
<br>	The <br> tag inserts a single line break.
<blockquote>	The <blockquote> tag specifies a section that is quoted from another source.
<pre></pre>	The <pre> tag defines preformatted text.
<hr>	The <hr> tag defines a thematic break in an HTML page

4. Text <p> tag

- The **<p>** tag defines a paragraph.

Browsers automatically add a single blank line before and after each <p> element.

Most browsers will display the <p> element with the following default values:

```
p {
display: block;
margin-top: 1em;
margin-bottom: 1em;
margin-left: 0;
margin-right: 0;
}
```

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4. Text <p> tag

- Fonts

  <p style="font-family:sansserif;"> This is a paragraph.</p>

- Font-size

  <p style="font-size:24px;">This is a paragraph.</p>

- Align

  <p style="text-align:center;">This is a paragraph.</p>

- Colour

  <p style="color:red;">This is a paragraph.</p>

4. Text <pre> tag

- The **<pre>** tag defines preformatted text.

- Text in a **<pre>** element is displayed in a fixed-width font, and the text preserves both spaces and line breaks. The text will be displayed exactly as written in the HTML source code. Most browsers will display the <pre> element with the following default values:

```
pre {
    display: block;
   font-family: monospace;
    white-space: pre;
    margin: 1em 0;
}
```

4. Text <hr> tag

- The **<hr>** tag defines a thematic break in an HTML page (e.g. a shift of topic).

- The **<hr>** element is most often displayed as a horizontal rule that is used to separate content (or define a change) in an HTML page.

- The **<hr>** tag is empty, which means that the closing tag isn't required.

Example: Set the width of a <hr> element (with CSS):

```
<hr style="width:50%">
```

4. Text <h1> to <h6> tags

- The **<h1>** to **<h6>** tags are used to define HTML headings.

- **<h1>** defines the most important heading. **<h6>** defines the least important heading.

- Note: Only use one <h1> per page - this should represent the main heading/subject for the whole page. Also, do not skip heading levels - start with <h1>, then use <h2>, and so on.

Example:

```
<h1>This is heading 1</h1>
<h2>This is heading 2</h2>...
<h6>This is heading 6</h6>
```

4. **Text** (Format tags)

- There are multiple format tags. The most important are:

Tag	Meaning
<b></b>	Bold text
<i></i>	Italic text
<u></u>	Underlined text
<strong></strong>	Strong importance / bold text
<small></small>	Small text
<sup></sup>	Superscripted text
<sub></sub>	Subscript text

4. Text (Format tags)

- There are multiple format tags. The most important are:

Tag	Meaning
<mark></mark>	Marked or highlighted text
<del>/</del>	Text that has been deleted from a document
<em></em>	Emphasized text
<q></q>	Short quotation
<cite></cite>	Title of a creative work (a book, a song, a movie, a painting)
<time></time>	Specific time (or datetime)
<address></address>	Contact information for the author/owner of a document

4. Text (Special characters)

Character	Code	Character	Code	Character	Code
¡	&iexcl;	ñ	&ntilde;	Í	&Iacute;
¿	&iquest;	Ñ	&Ntilde;	ó	&oacute;
“	&quot;	á	&aacute;	Ó	&Oacute;
espacio	&nbsp	Á	&Aacute;	ú	&uacute;
>	&gt;	é	&eacute;	Ú	&Uacute;
<	&lt;	É	&Eacute;		
©	&reg;	í	&iacute;		

5. Links

- HTML links are hyperlinks. You can click on it and jump to another document.

- When you move the mouse over a link, the mouse arrow will turn into a little hand.

- The <link> tag defines the relationship between the current document and an external resource: **<a** href="url"**>**link text**</a>**

Example:

<a href=”http://www.google.com”**>**Click here to go to Google**</a>**

5. Links: Attributes

- href: Specifies the location of the linked document.

- The target attribute specifies where to open the linked document:

_blank	Opens the linked document in a new window or tab
_self	Opens the linked document in the same frame as it was clicked (this is default)
_parent	Opens the linked document in the parent frame
_top	Opens the linked document in the full body of the window
framename	Opens the linked document in the named iframe

5. Links: Attributes

- By default, links will appear as follows in all browsers:

  - An unvisited link is underlined and blue
  - A visited link is underlined and purple
  - An active link is underlined and red
  - *Tip: Links can of course be styled with CSS, to get another look!*

5. Links: Internal links

- HTML internal link is linked within the same web page. This link can be an absolute path or relative path.

- HTML internal link name is followed by the hash sign(#). You have to assign an id to refer section of your page, which is referred to as an internal link to the same page.

- When you click on an internal anchor link, you will scroll automatically to the referred section and display it on your browser.

5. Links: Internal links

- Example:

```
<a href=”#name”>Link text</a>   <!--   Anchor/link to the part B-->
      Part A of the document
      ……….
<a name=”name”></a>             <!--   It comes from the part A-->
      Part B of the document
```

- You can use a relative path to link to pages on the same website:

```
<a href="/example">Text Here</a>
```

5. HTML: email client

- Link that runs email client:

If the value of the href-attribute begins with mailto: it will try to open an email client on click:

```
<a href="mailto:example@example.com">Send email</a>
```

This will put the email address example@example.com as the recipient for the newly created email.

- Cc and Bcc: You can also add addresses for recipients using the following syntax:

```
<a href="mailto:example@example.com?cc=john@example.com&bcc=jane@example.com">Send email</a>
```

6. Images

src: Specifies the URL of the image

sizes: Image sizes between breakpoints

alt: Alternative text should be displayed if for some reason images cannot be displayed.

width: Specifies the width of the image (optional)

height: Specifies the height of the image (optional)

- To use an image as a link, just put the <img> tag inside the <a> tag:

```
<a href="default.asp">
    <img src="smiley.gif" alt="HTML tutorial" style="width:42px;height:42px;">
</a>
```

6. Images

- To add an image to a page, use the image tag.

Image tags (img) do not have closing tags. The two main attributes you give to the img tag are src, the image source and alt, which is alternative text describing the image.

```
<img src="images/hello.png" alt="Hello World">
```

You can also get images from a web URL:

```
<img src="https://iesruizgijon.es/images/departamentos/DACE/Ganador_portada_agenda.jpg"
alt="Portada ganadora">
```

7. Lists

- HTML offers three ways for specifying lists:
  - ordered lists
  - unordered lists
  - description lists.

- Ordered lists use ordinal sequences to indicate the order of list elements.

- Unordered lists use defined symbols such as a bullet to list elements in no designated order.

- Description lists use indents to list elements with their children.

7. Lists: Ordered Lists

Ordered List: An ordered list can be created with the <ol> tag and each list item can be created with the <li> tag as in the example below:

```
<ol>
	<li>Item</li>
	<li>Another Item</li>
	<li>Yet Another Item</li>
</ol>
```

This will produce a numbered list (The default style):

1. Item
2. Another Item
3. Yet Another Item

- Manually changing the numbers:You can play with which numbers appear on the list items in an ordered list using the start attribute.

```
<ol start="3">
	<li>Item</li>
	<li>Some Other Item</li>
</ol>
```

This will produce a numbered list (which is the default style):

3. Item
4. Some Other Item

7. Lists: Unordered Lists

An unordered list can be created with the **<ul>** tag and each list item can be created with the **<li>** tag as shown by the example below:

```
<ul>
<li>Item</li>
<li>Another Item</li>
<li>Yet Another Item</li>
</ul>
```

This will produce a bulleted list (which is the default style):

- Item
- Another Item
- Yet Another Item

7. Lists: Unordered Lists

- Nested lists: You can nest lists to represent sub-items of a list item.

```
<ul>
        <li>item 1</li>
        <li>item 2
        <ul>
                <li>sub-item 2.1</li>
                <li>sub-item 2.2</li>
        </ul>
        </li>
        <li>item 3</li>
</ul>
```

The nested list has to be a child of the li element:

- Item 1
- Item 2
    - sub-item 2.1
    - sub-item 2.2
- Item 3

7. Lists: Unordered Lists

- Nested lists: You can nest different types of list, too:

```
<ol>
    <li>Hello, list!</li>
    <li>
        <ul>
            <li>Hello, nested list!</li>
        </ul>
    </li>
</ol>
```

7. Lists: Description Lists

A description list (or definition list, as it was called before HTML5) can be created with the dl element. It consists of name-value groups, where the name is given in the dt element, and the value is given in the dd element.

```
<dl>
	<dt>name 1</dt>
	<dd>value for 1</dd>
	<dt>name 2</dt>
	<dd>value for 2</dd>
</dl>
```

This will produce a description list like the following one:

```
name 1
	value for 1
name 2
	1st value for 2
	2nd value for 2
```

7. Lists: List-style-types

The list-style-type CSS property sets the marker (such as a disc, character, or custom counter style) of a list item element.

```
<ul style=”list-style-type:square;”>
        <li> An item </li>
        <li> Another item </li>
        <li> A third item </li>
</ul>
```

The result is:

▪ An item

▪ Another item

▪ A third item

7. Lists: List-style-types

```
/* Partial list of types */
        list-style-type: disc;
        list-style-type: circle;
        list-style-type: square;
        list-style-type: decimal;
        list-style-type: georgian;
        list-style-type: trad-chinese-informal;
        list-style-type: kannada;
```

8 Tables

The HTML <table> element allows web authors to display tabular data (such as text, images, links, other tables, etc.) in a two dimensional table with rows and columns of cells.

```
<table>
	<tr>
		<th>Heading 1/Column 1</th>
		<th>Heading 2/Column 2</th>
	</tr>
	<tr>
		<td>Row 1 Data Column 1</td>
		<td>Row 1 Data Column 2</td>
	</tr>
	<tr>
		<td>Row 2 Data Column 1</td>
		<td>Row 2 Data Column 2</td>
	</tr>
</table>
```

This will render a <table> consisting of three total rows (<tr>): one row of header cells (<th>) and two rows of content cells (<td>). <th> elements are *tabular headers* and <td> elements are *tabular data*. You can put whatever you want inside a <td> or <th>

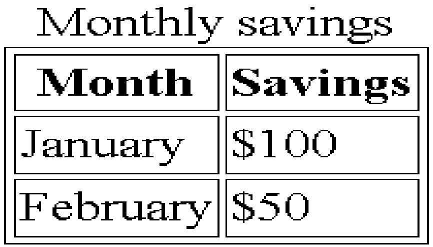
Heading 1/Column 1	Heading 2/Column 2
Row 1 Data Column 1	Row 1 Data Column 2
Row 2 Data Column 1	Row 2 Data Column 2

8 Tables: Caption tag

The <caption> tag defines a table caption. The <caption> tag must be inserted immediately after the <table> tag:

```
<table>
    <caption>Monthly savings</caption>
    <tr>
      <th>Month</th>
      <th>Savings</th>
     </tr>
     <tr>
      <td>January</td>
      <td>$100</td>
     </tr>
</table>
```

The output of that HTML code is:



Monthly savings

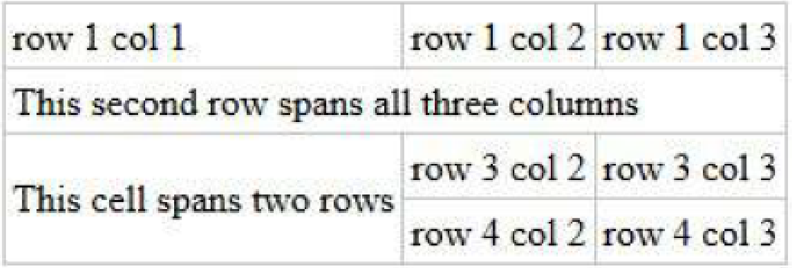
Month	Savings
January	$100
February	$50

8 Tables: Spanning columns or rows

Table cells can span multiple columns or rows using the `colspan` and rowspan attributes. These attributes can be applied to **`<th>`** and **`<td>`** elements.

```
<table>
<tr>
<td>row 1 col 1</td>
<td>row 1 col 2</td>
<td>row 1 col 3</td>
</tr>
<tr>
<td colspan="3">This second row spans all three columns</td>
</tr>
<tr>
<td rowspan="2">This cell spans two rows</td>
<td>row 3 col 2</td>
<td>row 3 col 3</td>
</tr>
</table>
```

It will result in:



row 1 col 1	row 1 col 2	row 1 col 3
This second row spans all three columns		
This cell spans two rows	row 3 col 2	row 3 col 3
	row 4 col 2	row 4 col 3

8 Tables: HTML Table Borders

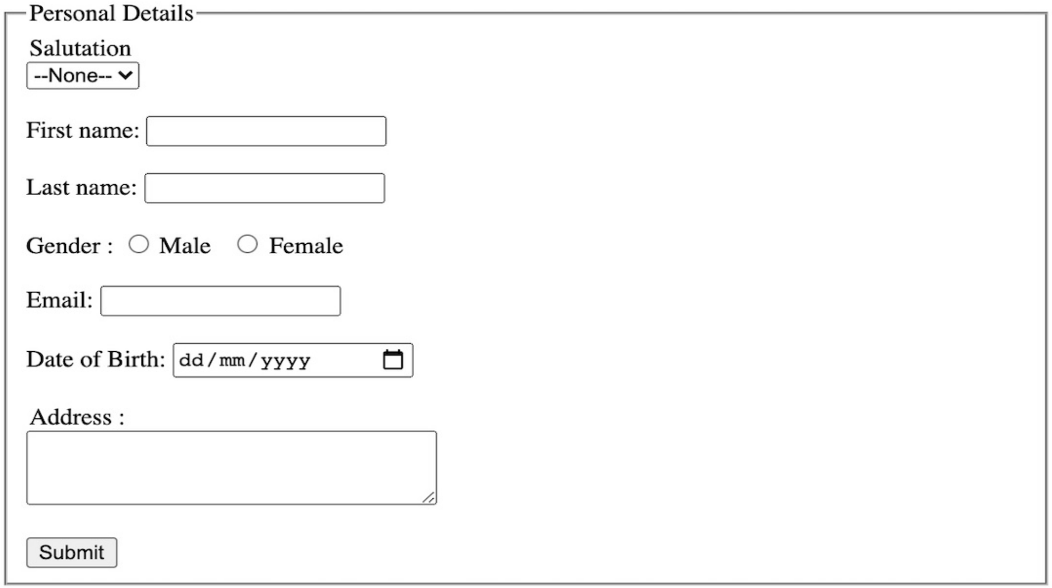
By default, tables have not any border. To add a border, use the CSS border property on table, th, and td elements. To avoid having double borders like in the example above, set the CSS border-collapse property to collapse:

```
        <style>
            table {
                border-collapse: collapse;
            }
            th, td{
                border:1px solid black;
            }
    </style>
```

9. Forms

In order to group input elements and submit data, HTML uses a form element to encapsulate input and submission elements.

These forms handle sending the data in the specified method to a page handled by a server or handler.



Personal Details

Salutation

--None--

First name:

Last name:

Gender : ○ Male ○ Female

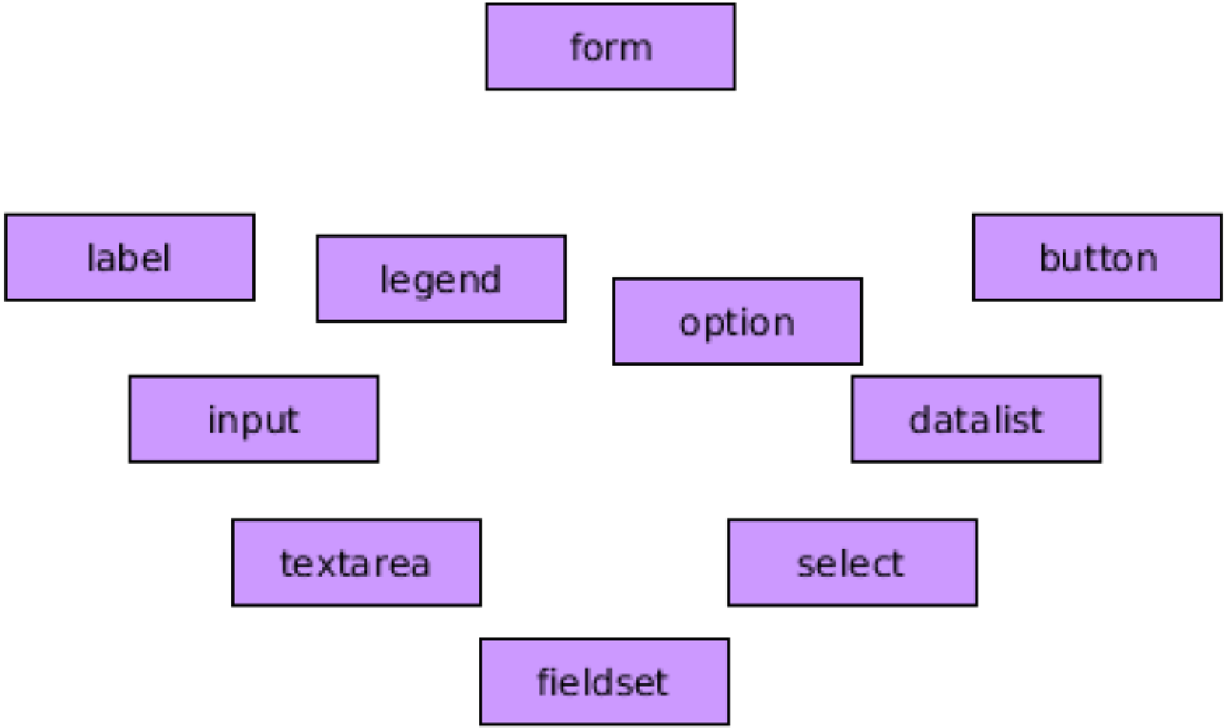
Email:

Date of Birth: dd/mm/yyyy

Address :

9. Forms

Tags-->


form

label

legend

option

button

input

datalist

textarea

select

fieldset

9. Forms: Attributes

Attribute	Description
action	Specifies where to send the form-data when a form is submitted.
method	Specifies the HTTP method to use when sending form-data (POST or GET).
name	Specifies the name of a form.
target	Specifies where to display the response that is received after submitting the form.

9. Forms: The method attribute

The method attribute defines the HTTP method of the form which is either GET or POST.

```
<form action="action.php" method="get">
<form action="action.php" method="post">
```

The GET method is mostly used to get data, for example to receive a post by its ID or name, or to submit a search query. The GET method **will append the form data to the URL specified in the action attribute.**

www.example.com/action.php?firstname=Mickey&lastname=Mouse

The POST method is used when submitting data to a script. The POST method **does not append the form data to the action URL** but sends using the request body.

9. Forms: Target attribute in form tag

The target attribute specifies a name or a keyword that indicates where to display the response that is received after submitting the form.

From Tag with a target attribute: <form target="_blank">

Value	Description
_blank	The response is displayed in a new window or tab
_self	The response is displayed in the same frame (this is default)
_parent	The response is displayed in the parent frame
_top	The response is displayed in the full body of the window

9. Forms: Input control elements

A key component of interactive web systems, input tags are HTML elements designed to take a specific form of input from users.

Different types of input elements can regulate the data entered to fit a specified format and provide security to password entry.

In the following pages, you will find the most importants input fields for HTML5.

9. Forms: Text

The most basic input type and the default input if no type is specified. This input type defines a single-line text field with line-breaks automatically removed from the input value.

Syntax: <input type="text">

The default width of a text field input is 20 characters. This can be changed by specifying a value for the size attribute like this:

Syntax: <input type="text" size="50">

An input field only allows one line of text. If you need a multi-line text input for substantial amount of text, use a <textarea> element instead.

9. Forms: Textarea

The <textarea> tag defines a multi-line text input control. The <textarea> element is often used in a form, to collect user inputs like comments or reviews.

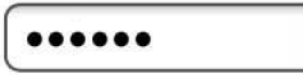
A text area can hold an unlimited number of characters, and the text renders in a fixed-width font (usually Courier).The size of a text area is specified by the cols and rows attributes.

```
<textarea name=”comments” cols=“20” rows=“5”></textarea>
```

9. Forms: Password

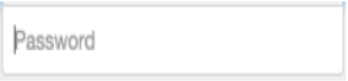
The input element with a type attribute whose value is password creates a single-line text field similar to the input type=text, except that text is not displayed as the user enters it.

```
<input type="password" name="password">
```



Placeholder text is shown in plain text and is overwritten automatically when starts typing.

```
<input type="password" name="password" placeholder="Password">
```

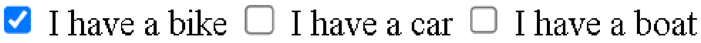


9. Forms: Checkbox

The <input type="checkbox"> defines a checkbox. The checkbox is shown as a square box that is ticked (checked) when activated. (It is unchecked by default)

Checkboxes are used to let a user select one or more options of a limited number of choices.

Checkboxes are independent, meaning the user may select as many choices as they would like in a group of checkboxes. In other words, checking one checkbox does not uncheck the other checkboxes in checkbox group.

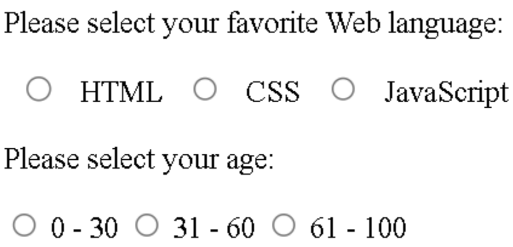


☑ I have a bike □ I have a car □ I have a boat

9. Forms: Radio button

Radio buttons are normally presented in radio groups (a collection of radio buttons describing a set of related options). Only one radio button in a group can be selected at the same time.

The radio group must have share the same name (the value of the name attribute) to be treated as a group. Once the radio group is created, selecting any radio button in that group automatically deselects any other selected radio button in the same group. You can have as many radio groups on a page as you want, as long as each group has its own name.



Please select your favorite Web language:

○ HTML ○ CSS ○ JavaScript

Please select your age:

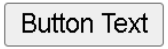
○ 0 - 30 ○ 31 - 60 ○ 61 - 100

9. Forms: Buttons

Buttons can be used for triggering actions to occur on the page, without submitting the form.

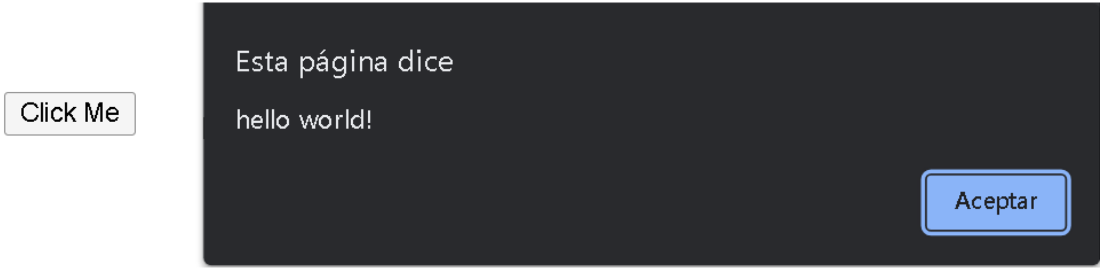
You can also use the <button> element if you require a button that can be more easily styled or contain other elements:

<button type="button">Button Text</button>



Buttons are typically used with an "onclick" event (JavaScript Language):

<input type="button" onclick="alert('hello world!')" value="Click Me">



Esta página dice

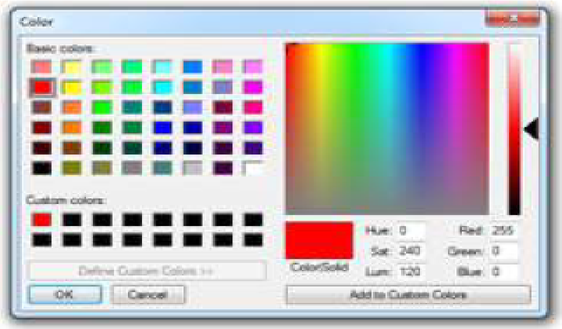
hello world!

9. Forms: Color

In supporting browsers, the input element with a type attribute whose value is color creates a button-like control, with a color equal to the value of color attribute (defaults to black if value is not specified or is an invalid hexadecimal format)

Button: <input type="color" name="favcolor" value="#ff0000">   Button: 🟥

Clicking this button opens the operating system's color widget, which allows user to select a color.



Hue: 0
Sat: 240
Lum: 120
Red: 255
Green: 0
Blue: 0

9. Forms: Input Validation

HTML input validation is done automatically by the browser based on special attributes on the input element. It could partially or completely replace JavaScript input validation.

Required: Use the required attribute to indicate that a field must be completed in order to pass validation. Example: <input …. required>

Use the **minlength** and **maxlength** attributes to indicate length requirements:

Example: <input minlength="3" maxlength="15">

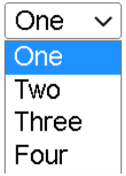
Use **min** and **max** attributes to restrict the range of numbers:

<input type="number" size="6" name="marks" min="0" max="100">

9. Forms: Selection Menu Controls

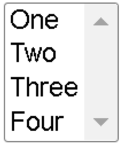
Select Menu: The <select> element generates a drop-down menu from which the user can choose an option.

```
<select name="">
        <option value="1">One</option>
        <option value="2">Two</option>
        <option value="3">Three</option>
        <option value="4">Four</option>
</select>
```



Changing the Size: You can change the size of the selection menu with the size attribute. A size of 0 or 1 displays the standard dropdown style menu. A size greater than 1 will convert the drop-down into a box displaying that many lines, with one option per line and a scrollbar in order to scroll through the available options.

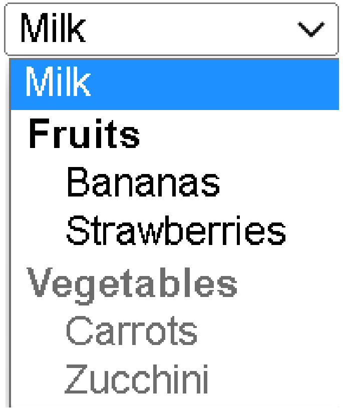
```
<select name="" size="4"></select>
```



9. Forms: Option Groups

You can neatly group your options within a selection menu in order to provide a more structured layout in a long list of options by using the <optgroup> element. It can contain zero or more options that should be within that group.

```
<select name="">
        <option value="milk">Milk</option>
        <optgroup label="Fruits">
                <option value="banana">Bananas</option>
                <option value="strawberry">Strawberries</option>
        </optgroup>
        <optgroup label="Vegetables" disabled>
                <option value="carrot">Carrots</option>
                <option value="zucchini">Zucchini</option>
        </optgroup>
</select>
```



9. Forms: Buttons

The <button> tag defines a clickable button. Always specify the type attribute for a <button> element, to tell browsers what type of button it is.

Possible values are:

- submit : The button submits the form data to the server. This is the default if the attribute is not specified, or if the attribute is dynamically changed to an empty or invalid value.

- reset : The button resets all the controls to their initial values.

- button : The button has no default behavior. It can have client-side scripts associated with the element's events, which are triggered when the events occur.

9. Forms: Buttons

Try the following code to see how the different buttons (submit, reset, button) work.

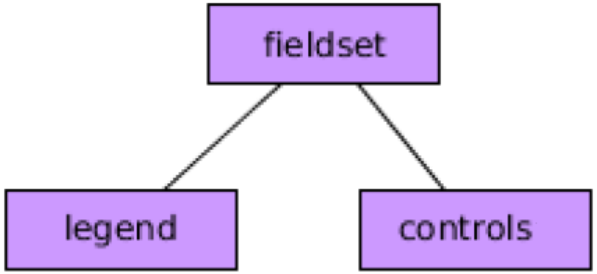
```
<form action="PaginaDestino.html" method="post">
        City: <input type="text" name="city">
        Street: <input type="text" name="street">
       </br><input type="submit" value="Submit"> &nbsp;&nbsp;&nbsp;&nbsp;
        <input type="reset" value="Remove all info">
        </br><button type="button" onclick="alert('Button has been clicked')">Click on it</button>
</form>
```

9. Forms: <fieldset> tag.

Allows you to organize the form into logical sections.

The closing tag </fieldset> is required.

<legend></legend> allows to title or label the set of fields that are included within <fieldset>



10. Other <input> types

- color
- date
- local date time
- e-mail
- files
- hidden
- picture
- months
- week
- number
- password
- range
- reset
- search
- submit
- phone
- text
- time
- url

10. Other <input> types

Interesting attributes for controls

- required
- maxlength
- size
- disabled
- readonly

- placeholder
- selected
- value
- tabindex
- multiple

- 8 other cool HTML tags you didn't know existed (Hyperlink)

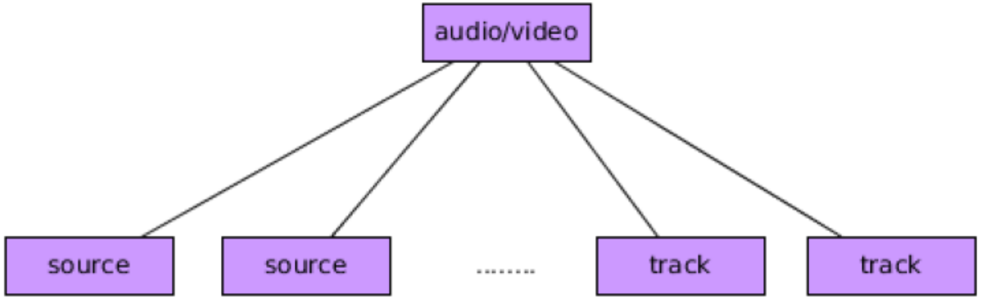
11. Media: Audio & video

To include audio and video in an HTML page, use the <audio> and <video> tags respectively.

Attributes: controls, autoplay, loop, muted, ...

Source attributes: src, type

Structure:



audio/video

source

source

....

track

track

11. Media: Audio

Supported audio formats: mp3, wav, ogg

Example:

```
<audio controls>
      <source src=“yawn.ogg” type="audio/ogg">
      <source src=“yawn.mp3" type="audio/mpeg">
      Your browser does not support the audio element.
</audio>
```

11. Media: Video

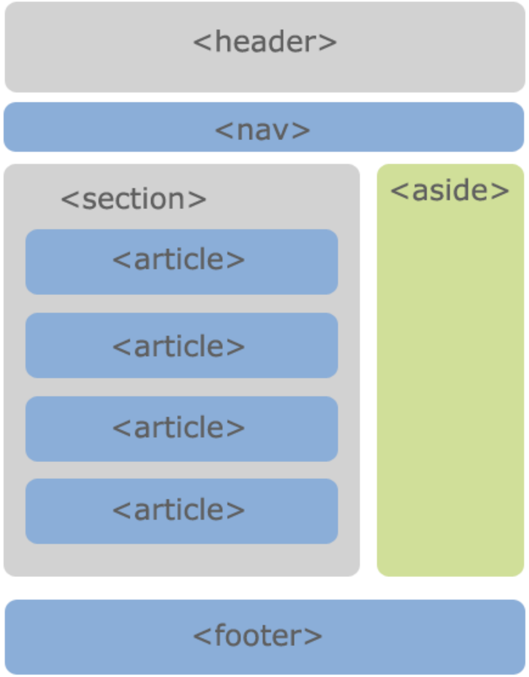
Supported audio formats: mp4, webM , ogg

Attributes: width , height , poster

Example:

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

12. Semantic tags



<header>

<nav>

<section>

<article>

<article>

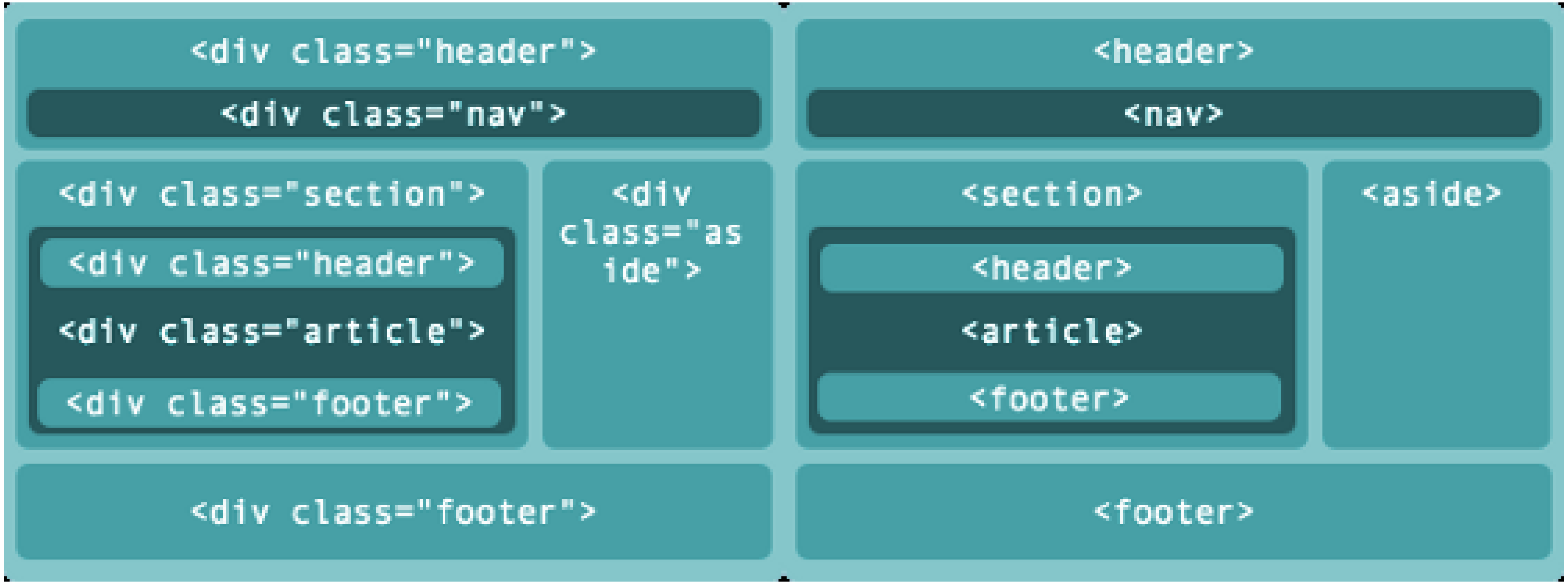
<article>

<article>

<aside>

<footer>

12. Semantic tags



12. Semantic tags

Semantic tags (within the body)

<article>: Content with its own identity (it could exist by contributing information independently from the rest of the document)

Semantic tags for tables

<head>: Defines the header of the table

<tbody>: Defines the body of the table

<tfoot>: Defines the table footer

12. Semantic tags

Other elements:

<cite>: Title of a publication

<address>: Physical address

<time>: Date and Time

13. Extra tags

<iframe>: Allows you to display web pages inside other pages.

<script>: It is used to introduce code written in other languages (like JavaScript)

<object > & <embed>: They are used to display external or third-party documents on the browser screen.

<canvas>: Allows you to draw and animate graphics using JavaScript. It is commonly used for HTML5 games.

<svg>: Used to generate vector graphics.

13.1 The W3C Markup Validation

This validator checks the markup validity of Web documents in HTML, XHTML, SMIL, MathML, etc.

You can find it in the following site: https://validator.w3.org/