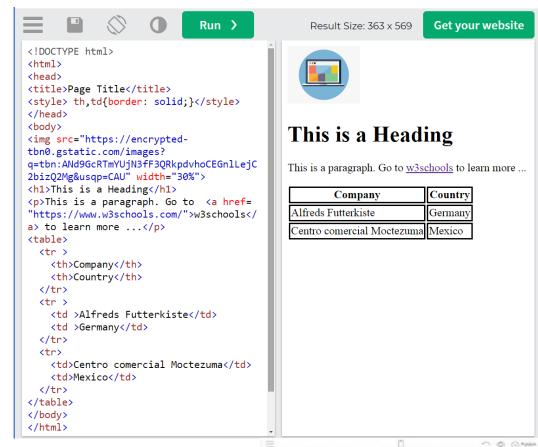
Part II: HTML

HTML - Introduction

Hyper Text Markup Language

- Markup language for creating and structuring web page content.
- Content? titles, paragraphs, lists, images, videos, tables, buttons, input fields, ...
- Structuring? Positioning content elements, using « tags », according to a given logic and respecting HTML rules.

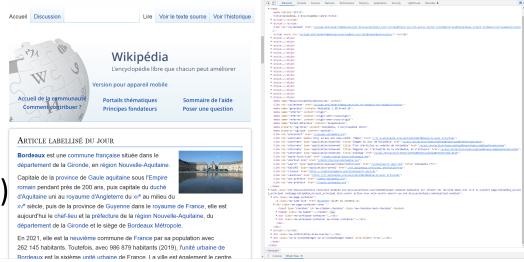




HTML - Introduction

- HTML web page? basically is an ".html or .htm" text file storing and describing the content of the page using tags
 - Insert a title with a title-specific tag (h2)
 - Insert a link with a link-specific tag (a)
 - Insert a table with a table-specific tag (table)
- The browser reads and interprets these html files and displays what we are used to seeing in internet web pages
- Learn HTML

 know and know how to use these tags

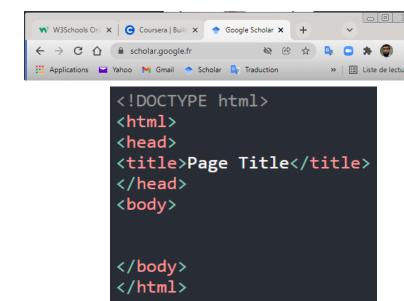


Drupal

HTML - Rules

Some Rules

- A basic structure is "required"
- Tags do not overlap but can be nested or neighboring
- HTML is not case sensitive.
- Tags can be orphaned
- Tags can have one or more attributes
- <!DOCTYPE html> tells the browser the type of document (html, xml, csv, ...)
- <html> main tag delimiting the entire page
- <head> invisible part containing information about the page (meta-info)
 - It contains at least the <title> tag designating the title of the page with other tags such as : <méta>, <style>, k>, ...
- <body> the body or visible part of the page



```
<body>
                        <body>
<h1> Titre principal</h1>
                        <h1> Titre principal<h2>
<h2> Sous titre</h2>
                        </h1> Sous titre</h2>
 un exemple d'<a>adresse</a>
                         un exemple d'
dans un paragraphe
                        <a>adresse</a>
<l
                        <l
item1
                        item1
item2
                        item2
</body>
```

```
<img src="ident.png" width="40%">
Du texte</br> encore ...<br>
<title>Page Title</title>
<meta cherset="utf-8">
```

k rel="stylesheet" href="style.css">

</head>

HTML – Tags

- Tag? textual element used to delimit and indicate the location of elements on a web page.
 It is recognized by a specific name enclosed in angle brackets: <tag_name> or </tag_name>
 - Ex: <body>, <a>, , ,
, ...
- Some web elements require a pair of tags to enclose them, while others only need to indicate their positions (orphans).
 - Ex: <h3> ...</h3>, ..., ..., ..., ...
 - Ex: , <input/>, <audio/>,
, ...
 - NB: « / » after tag names are not required for orphan tags!

```
<a href="">Acceuil</a>
       1i>1er élément
       2ème élément
       3ème élément
   <div id="engage"><a href="">Je m'engage</a></div>
<div class="content">
<div class="text">
    <a href="">Acceuil</a> > <span>Je m'engage</span>
   <span>Vous vous apprétez à faire une bonne action!</span>>
   span>pour mettre en place votre foret</span> 
<div class="images">
    <img src="im1.jpg" alt="image" class="droite" />
    <img src="im2.jpg" alt="image" class="droite" />
   <img src="im3.jpg" alt="image" class="droite" />
   <img src="im4.jpg" alt="image" class="droite" />
<form action="exemple php.php" method="post">
   <label>Nom et prénom:</label> <input type="text" name="age" size="2" /</pre>
   <label>Société:</label> <input type="text" name="age" size="2" />
   <input type="button" name="age" size="2" value="submit" />
```

HTML - Attributes

- Attributes? Properties used to give additional information to HTML tags.
- Attributes are inserted into the opening part of the tag with the syntax: attr_name="value" or attr_name (boolean attributes).
 - Ex: src="logo.png", href="www.google.com", id="ch23", value="ok", class="head", name="tname", width="500", style="color: red;",
 - Ex: controls, autoplay, multiple, readonly, disabled, required, ...

```
<img src="im.jpg" alt="image" class="droite"</p>
<h3>Son</h3>
   <audio src="chat.wav" controls>Votre navigateur ne supporte pa
<h3>Video</h3>
   <video src="chat.wav" controls>Votre navigateur ne supporte pa
<h3>Jauges</h3>
   Mesure : <meter min="0" max="100" low="10" high="90" value="75">7
  <caption>Tableau à cellules recouvrantes/caption>
   ligne 1 et 2, colonne 1
   ligne 1, colonne 2
   ligne 1, colonne 3
   ligne 3, colonne 1
   ligne 3, colonne 2 et 3
<h2 id="formulaire">Formulaire</h2>
<form action="exemple_php.php" method="post">
   <fieldset>
Nom : <input type="text" name="nom" size="50" list="noms" /> 
<datalist id="noms">
   <option value="Dupond">Mohamed</option>
   <option value="Durand">Meriem</option>
 Âge : <input type="text" name="age" size="2" /> 
 Année : <select name="annee">
   <option>Licence</option>
   <option selected>M1</option>
   <option>M2</option>
</select> 
 Formation continue : <input type="checkbox" name="fc" /> 
<input type="hidden" name="action" value="ajout" />
 <input type="reset" value="Annuler" />
   <input type="submit" value="Valider" /> 
</fieldset> </form>
```

HTML – Basics

Common tags

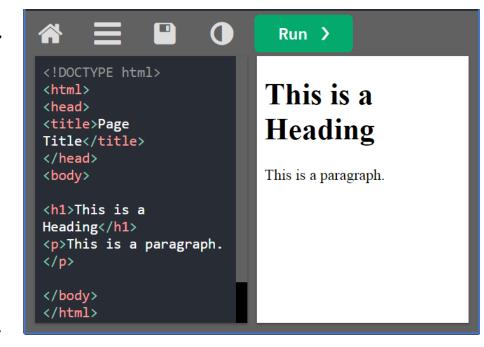
- Tags for titling from most to least important: <h1>...</h1>, <h2>...</h2>, <h3>...</h3>, <h4>...</h4>, <h4>...</h4>, <h5>...</h5>, <h6>...</h6>
- Paragraph tag: ...
- Break tag:

- Link tag (anchor or address): <a>...
- Image tag:
- Comment tag: <!- comment -->

```
<!DOCTYPE html>
<html>
<head>
 <title>HTML basics</title>
 <meta charset="utf-8">
</head>
<body>
<h1></h1>
<h3>HTML Images</h3>
<!-- comment example -->
HTML images are defined with
the img tag:
<img src="w3schools.jpg" alt="W3Schools"</pre>
width="104" height="142">
<!-- a comment
mav be
multiline -->
<a href="www.W3Schools.com">
clic here to go</a>
</body>
</html>
```

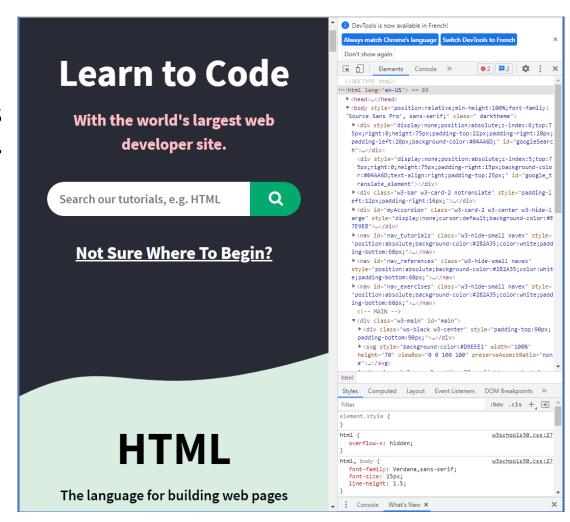
HTML - Practice

- W3Schools offers a convenient online tool for easily trying out and visualizing HTML (and other) code.
- It consists of two panels, one for the source code and the other to directly display its result in the browser.
- It is advisable to run the code to display the result after each small change to avoid the difficulties of correcting the code following major changes.



HTML - Practice

- It is sometimes useful to draw inspiration from other pages and/or reuse code snippets from other pages to accelerate development.
- Web browsers offer tools that promote this idea: web page displayers and code inspectors.
- The code displayer allows you to display the source code in color in read-only mode.
- The code inspector allows you to select an element of the page, display/edit the page's or element's code, and display/edit CSS style code, offering several views (Rules, Computed, Layout, ...).



HTML – Formatting

Formatting tags? HTML is a language for structuring, not for formatting and decoration. The formatting tags below serve to give specific meaning to the text. It is advised to avoid using them as much as possible and leave formatting to CSS.

```
<br/><b> (bold): bold text<br/><strong>: important text
```

<i>: italic text

: emphasis text

<mark>: hightlighted text

<small>: small text

: deleted text

<ins>: underlined text

<sup>: superscript text

<sub>: subscript text

```
<!DOCTYPE html>
                                         This text is bold
<html>
<body>
                                         This text is strong
<br/>this text is bold</b>
                                         This text is emphasis
 <br>
 <strong>This text is strong
                                         This text is italic
</strong>
 <br>
                                         This is _{\mathrm{subscript}} and ^{\mathrm{superscript}}
<i>This text is emphasis</i>
 <br>
                                         This is: deleted, insered, small,
 <em>This text is italic
                                         text
 <br>
This is
 <sub> subscript</sub> and
 <sup>superscript</sup>
 <br>This is: <del>deleted</del>,
 <ins> insered</ins>,
 <small>small</small>, text
</body>
</html>
```

HTML – Links

- Links are a fundamental concept on the web. They allow pages to be interconnected, enabling users to navigate from one place to another within the same or different site.
- <a> is used to define a link with the **href** attribute that determines the target address of the link. Links are clickable; they can be text, images, or other elements.
- The target attribute specifies where to open the link: _self (same tab), _blank (new tab), ...
- Link addresses can be absolute (complete address from its root) or relative (relative to the location of the link on the page).
 - Ex: href="https://www.w3.org/" (absolute)
 - Ex: href="users/profil/page1.html" (relative)
- A link can lead to a location:
 - Internal in the site: href="/contact.html"
 - External of the site: href="https://www.google.com/"
 - Email sending: href="mailto:someone@gmail.com"
 - Internal in the page: href="#rep" where rep is the id attribute value of the target tag

HTML – Lists

- HTML lists are used to group a set of items. HTML offers three types of lists: ordered, unordered, description
- (ordered list) for ordered lists with (list item) for each item in the list
 - Use the type attribute to choose the numbering type: type="1" (numeric), type="A" (uppercase), type="a" (lowercase), type="i" (lowercase roman), ...
- (unordered list) for unordered lists with (list item) for each item in the list
- <dl> (description list) for lists of definitions with <dt> (description term) for each term to be defined and <dd> (description definition) for each definition
- Lists can be nested inside each other

```
<h3>Ordered List</h3>
type="i">
 Coffee
 Tea
 Milk
<h3>Unordered List</h3>
<l
 Coffee
 Tea
 Milk
<h3>Description List</h3>
<d1>
 <dt>Coffee</dt>
 <dd>- black hot drink</dd>
 <dt>Milk</dt>
 <dd>- white cold drink</dd>
 <dt>Orang juce</dt>
 <dd>- yellow cold drink</dd>
</dl>
<h3>Nested List</h3>
<l
 Coffee
 Tea
   <01>
    Black tea
    Green tea
   Milk
```

Ordered List

i. Coffee ii. Tea iii. Milk

Unordered List

- Coffee
- Tea
- Milk

Description List

Coffee

black hot drink

Milk

- white cold drink

Orang juce

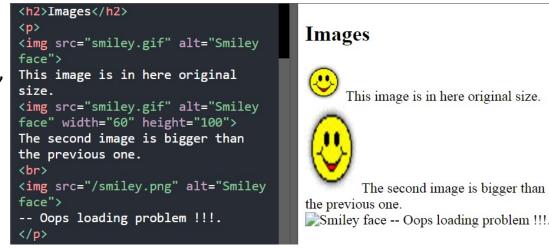
- yellow cold drink

Nested List

- Coffee
- Tea
 - Black tea
 Green tea
- Milk

HTML – Images

- is used to insert (link between the HTML document and the image file) an image. alt and src attributes are the most common for this tag.
 - **src** (source): relative/absolute path of the image
 - alt (alternate): text replacing the image in case of loading issues
 - Use CSS rather than width and height attributes to define image size.
 - Several image formats are available:
 - JPEG (optimal quality and size, photos),
 - PNG (transparency & precision, logo, icon, drawing),
 - **GIF** (limited quality, animation), ...
 - <object> and <embed> can also be used to display image, html files, ...



<object data="audi.jpeg"></object>

<embed src="audi.jpeg">

HTML – Videos

- <video> is used to insert (link between the HTML document and the video file) a video. The src, width, height, controls, autoplay and muted attributes are the most common for this tag.
 - **src** (source): relative/absolute path of the video
 - **controls**: to add control buttons (on, off, etc.)
 - autoplay: to start the video after the page loads
 - muted: to mute the sound when the video starts
 - width/height: to set the size of the video
 - To avoid compatibility issues with video formats across browsers, it is advisable to provide the video with multiple files of different formats using the <source> tag and its src and type attributes.
 - ✓It is possible to embed a YouTube video on our page using its YouTube ID and the <iframe> tag.

<video src="movie.mp4" controls height="60%"></video>

Video

</video>



```
<iframe width="420" height="315"
src="https://www.youtube.com/embed/tgbNymZ7vqY">
</iframe>
```

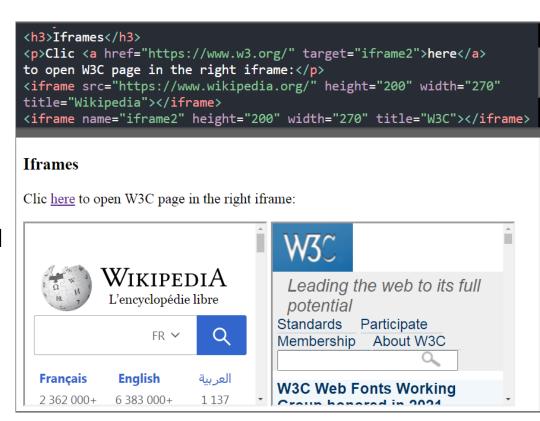
HTML - Audios

- <audio> is used to insert audio (linking between the HTML document and the audio file). The most common attributes for this tag are src, width, height, controls, autoplay, and muted.
 - src (source): relative/absolute path of the sound
 - controls: to add control buttons (play, stop, ...)
 - autoplay: to start the audio after the page loads
 - muted: to mute the audio at startup
 - Width/height: to define the size
 - To avoid compatibility issues with audio formats across browsers, it is advisable to provide the audio with multiple files of different formats using the <source> tag and its src and type attributes.

```
<audio src="horse.ogg" controls ></audio>
<h2>Sound</h2>
<audio controls autoplay muted>
  <source src="horse.ogg" type="audio/ogg">
  <source src="horse.mp3" type="audio/mpeg">
Your browser does not support the audio
element.
</audio>
Sound
     0.01 / 0.01
```

HTML – Iframes

- <iframe> is used to display a web page within another web page, integrating an HTML document into another. Its common attributes are:
 - src: path or address of the document to be displayed
 - title: title of the content of the page to be displayed
 - width/height: width/height of the iframe
 - An iframe can be used as a target for links. To do this, the target attribute of the link (<a> tag) must refer to the value of the iframe's name attribute.



HTML – Tables

- HTML tables allow organizing information in rows and columns.
- An HTML table comprises a list of rows
 (table row) composed, in turn, of data cells (table data) or headers (table header).
 - A caption can be added to the table with <aption>.
- Cells spanning multiple rows or columns can be merged using the rowspan and colspan attributes, respectively.
 - colspan=" number of columns to merge "
 - rowspan=" number of lines to merge "

```
<h3>Tables</h3>
<caption>Table with col & row
span</caption>
Name
 Age
 Average
Jill
 Smith
 43
 50
Eve
 Jackson
 57
Anne
 Dake
 20
'table>
```

Tables

Tables with col & row span

N	ame	Age	Average
Jill	Smith	43	
Eve	Jackson	57	50
Anne	Dake	20	

- Forms allow collecting the information entered by users and sending it to servers for processing.
- To insert a form, we use the <form> tag, which acts as a container for other elements such as text fields, radio buttons, checkboxes, etc.
- The <form> tag uses several attributes to control its elements and ensure the processing of entered data:
 - action: processing (file path) to be done after sending data
 - target: where to display data processing responses(_blank, _self, ...)
 - method: HTTP method of sending data (get, post)
 - name: form name

<pre><h2>HTML Forms</h2> <form action="/act_page.php" method="post" name="f1"></form></pre>
HTML Forms
First name:
Last name:
Submit
If you click the "Submit" button, the form-data will be sent to a page
called "/action_page.php".

The <form> tag can contain one or more of the following elements:

- <input>: Depending on its type attribute, it can take different forms.
- <label>: Label for a form element, its for attribute refers to that element.
- <select>: Dropdown list of values defined by <option> tags.
- <textarea>: Text area, the rows/cols attributes specify the number of rows/columns.
- <button>: Clickable button, its type attribute has the values"button", "reset", "submit".
- <fieldset>: Container grouping related form elements.
- <legend>: Legend for <fieldset>.
- <datalist>: Predefined list of values for the <input> element via its list attribute, which must have the value of the <datalist> id attribute. <datalist> is composed of multiple <option> elements.
- <option>: A value within <select> or <datalist>.
- <optgroup>: Grouping of <option> elements within <select> or <datalist>.

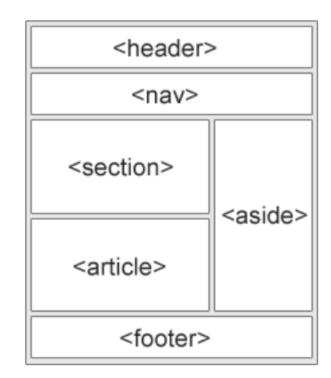
```
<h2>HTML Forms</h2>
                                                                         HTML Forms
<form action="exemple.php" method="post">
   <fieldset>
   <legend>Infos personnelles:</legend>
                                                                          Infos personnelles:
   <label for="i1">Nom:</label>
                                                                           Nom:
   <input type="text" name="nom" id="i1" size="20" list="noms">
   <datalist id="noms">
                                                                           Age:
        <option>Mohamed
                                                                         Année : M1
        <option>Meriem</option>
                                                                         Formation continue : \Box
        <option>Samia</option>
   </datalist><br>
                                                                          Autres:
   <label for="i2">Age:</label>
                                                                          Infos supplémentaires ...
   <input type="text" name="age" id="i2" size="2">
   </fieldset>
   Année :
   <select name="annee">
                                                                                  Valider
                                                                          Annuler
        <option>Licence</option>
        <option selected="selected">M1</option>
        <option>M2</option>
   </select><br>
   Formation continue :
   <input type="checkbox" name="fc"><br>
    Autres: <br>
   <textarea name="message" rows="5" cols="40">
       Infos supplémentaires ...
   </textarea><br>
   <button type="button">Annuler
   <input type="submit" value="Valider">
 </form>
```

- <input> element can take the following forms:
 - <input type="button">: Standard button
 - <input type="submit">: Form submission button
 - <input type="checkbox">: Checkbox
 - <input type="radio">: Radio button
 - <input type="text">: Text field
 - <input type="password">: Password field
 - <input type="email">: Email field (with validation)
 - <input type="date">: Date field (with calendar)
 - <input type="range">: Range slider
 - <input type="file">: File upload button (with file explorer)
 - <input type="color">: Color picker button (with color palette)

html <html></html>					Input types
<head> <title>Forms</title</td><td>></td><td>Descriptive text of</td><td>Possibility of</td><td>Read-only</td><td>Name name</td></tr><tr><td></head></td><td></td><td>the expected value</td><td>entering several</td><td>field</td><td>Nom: name</td></tr><tr><td><body></td><td></td><td></td><td>D-4</td></tr><tr><td><h2>Input types</h2></td><td></td><td>Date naissance: 02/02/2022</td></tr><tr><td><pre><form action="/actio";</pre></td><td>F 1</td></tr><tr><td>Nom: <input type="</td><td>Email: someone@gmail.com</td></tr><tr><td>Date naissance: <i
Email: <input type</td><td>Mot de passe:</td></tr><tr><td>Mot de passe: <inp</td><td></td><td>Wot de passe.</td></tr><tr><td>Photo: <input type</td><td>-</td><td>Photo:</td></tr><tr><td>Couleur des yeux:</td><td>≺input type="co</td><td>lor" id="inp5" name</td><td>="fcol" value="blac</td><td>autocomplete</td><td>Choisir un fichier im.jpg</td></tr><tr><td>Poids: <input type</td><td>- Innipp</td></tr><tr><td><pre><input type="butto</pre></td><td>Initial value for field</td><td>Cardon da como</td></tr><tr><td><pre><input type="submi </pre></td><td>Couleur des yeux:</td></tr><tr><td><pre><input type="radio <input type="radio</pre></td><td>Poids:</td></tr><tr><td><pre><input type="radio <input type="radio</pre></td><td>Polds.</td></tr><tr><td><pre><input type="check</pre></td><td>Ok Envoyer</td></tr><tr><td colspan=5><pre><input type="checkbox" id="inp14" name="fch1"> Python</pre></td><td></td></tr><tr><td></form> Ids all</td><td>Same name</td><td>Min/may</td><td></td><td></td><td>• HTML</td></tr><tr><td>C/ Dody ></td><td>for radios</td><td>Min/max</td><td></td><td></td><td>O CSS</td></tr><tr><td></html></td><td>101 Taulos</td><td>acceptable value</td><td></td><td></td><td>O JavaScript</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td>✓ PHP</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td>☑ Python</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td>-</td></tr></tbody></table></title></head>					

HTML – Layout

- Several HTML elements are available to define semantic parts of a web page, including:
 - <article>: Independent and self-contained content.
 - <aside>: Content outside of the document content (indirect relationship).
 - <nav>: Set of most important navigation links.
 - <details>: Additional details that the user can show or hide.
 - <figure>: Illustration, diagram, photo, code, etc. The title is inserted by <figcaption>.
 - <section>: Thematic grouping of content with a title typically.
 - <header>: Container for introductory content or navigation links (titles, logo, icons).
 - <main>: Main content of the document.
 - <footer>: Bottom of a document or section (author information, copyrights, contact, site map).



HTML – Non-semantic

- <div> is often used as a container for other HTML elements. It does not have mandatory attributes, but style, class, and id are the most common. It is often used to apply CSS styles to blocks of elements.
- is often used as an inline container to mark a part of a text or document. It usually uses the same attributes as <div>. Its use allows CSS styles to be applied to parts of the HTML document.

```
<a href="">Acceuil</a>
       1i>1er élément
       2ème élément
       3ème élément
   <div id="engage"><a href="">Je m'engage</a></div>
<div class="content">
<div class="text">
   <a href="">Acceuil</a> > <span>Je m'engage</span>
   <span>Vous vous apprétez à faire une bonne action!</span>>
   span>pour mettre en place votre foret</span> 
<div class="images">
   <img src="im1.jpg" alt="image" class="droite" />
   <img src="im2.jpg" alt="image" class="droite" />
   <img src="im3.jpg" alt="image" class="droite" />
   <img src="im4.jpg" alt="image" class="droite" />
<form action="exemple php.php" method="post">
   <label>Nom et prénom:</label> <input type="text" name="age" size="2" /</pre>
   <label>Société:</label> <input type="text" name="age" size="2" />
   <input type="button" name="age" size="2" value="submit" />
```

HTML – Block/Inline

- Block & inline? Depending on its type, an HTML element has a default display layout: block or inline.
- A block-type element always starts on a new line, occupies the full available width of the page, and has top and bottom margins.

```
<address> <article>
                      <aside>
                                    <blockquote> <canvas>
                                                             <dd>>
                                                                     <div>
                                                                                <d1>
<dt>
          <fieldset> <figcaption> <figure>
                                                             <form> <h1>...<h6>
                                                 <footer>
                                                                               <header:</pre>
<hr>>
          <1i>>
                      <main>
                                    <nav>
                                                 <noscript> 
                                                                                <
<section> 
                      <tfoot>
                                    <l
                                                 <video>
```

 An inline-type element does not start on a new line, takes only the necessary width, and has no top or bottom margins.

```
<bdo>
         <abbr>
                <acronym>
                            <b>
                                              <big>
                                                         <br>
                                                                   <button> <var>
<cite>
                <dfn>
                                                                  <kbd>
       <code>
                                      <i>>
                                              <img>
                                                         <input>
                            <em>
                 <object>
                                                         <script> <select>
                            <output>
                                              <samp>
<small> <span> <strong>
                            <sub>
                                      <sup>
                                             <textarea> <time>
```

Hello World

headings are block elements

The DIV element is a block element, and will always start on a new line and take up the full width available (stretches out to the left and right as far as it can).

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

<span style="border: solid 1px;">
<b>Somme examples of inline tags.
</b>
</span>
<label>labels are inline</label>
<br>
<a href="">links are also
inline</a>
<button>even buttons too</button>
</body>
</html>
```

Somme examples of inline tags. labels are inline links are also inline even buttons too

HTML – start-up

To make a website accessible and viewable, it is necessary to publish it on the internet by following these steps:

- 1. Find a space on a server from a web hosting provider to upload your website files (Hostinger, GoDaddy, iPage, etc.).
- 2. Look for a domain name. A domain name is the unique address where visitors can find your website (https://www.mozilla.org).
- 3. Optionally, use FTP (File Transfer Protocol) software (such as FileZilla, CyberDuck, Transmit, etc.) to upload the website files to your space on the server.
 - Typically, you connect to the web server using credentials provided by the hosting provider (username, password, host address, etc.).
- ☑ Many hosting providers offer domain name selection services.
- Several hosting solutions are available without the need for FTP software.



Plus d'outils pour développer votre entreprise.

Nous sommes connus pour nos domaines, mais nous proposons également d'autres solutions indispensables pour faire prospérer votre entreorise en lione.





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