HTML

Hypertext Markup Language, ou HTML, é a linguagem utilizada pelo browser

HTML é uma linguagem de *markup* : contem código que descreve como a página web deve ser formatada.

HTML Document Structure

```
<html>
<head>
    . . . Information to browsers and search engines . . .

<style type="text/css">
    . . . Put here the document-level style . . .
</style>

</head>

<body>
    ... This is the content of the page. ...
</body>
</html>
```

HTML Head (exemplo)

```
<head>

<title>título da página</title>

<meta http-equiv="Content-Type" content="text/html; charset=utf-8"/>
<meta http-equiv="refresh" content="600">
<meta http-equiv="refresh" content="0;URL=http://w3.ualg.pt/~jvo/poo/">

<meta name="description" content="Special wind and weather forecasts!"/>
<meta name="keywords" content="wind forecast, windsurfing"/>

<link rel="stylesheet" href="style-sheet.css" type="text/css">
<script src="cookiealert.js"></script>

</head>
```

HTML Body (exemplo)

Code Example	Typical Rendering

``` ```
```Hello World!```
``` ```
```<!- isto é um comentário ->```
	Hello **World!**

- HTML consists of tags, such as ```<p>```, interspersed with plain text.
- The ```<p>``` tag begins a paragraph; ```</p>``` ends the paragraph.
- Similarly, `````` starts text emboldening and `````` ends it.

Markup Lógico e Físico

- **logical markup**, or *semantic tags*, specifies something about the *meaning* of what is being marked up; the browser is free to choose a rendering that is sensible for the user's hardware

- **Physical markup**, such as the bold (`<b>`) tag specifies how the browser is supposed to render text.

Markup Lógico

Tag	Code Example	Typical Rendering
Emphasis `<em>`	`You can fly all day <em>in mid-air</em>.`	You can fly all day *in mid-air*.
Strong `<strong>`	`press relatively hard on <strong>both</strong> rudder pedals.`	press relatively hard on **both** rudder pedals.
Code `<code>`	`Alaska and Hawaii's airports are identified with a <code>PA</code> for "Pacific".`	Alaska and Hawaii's airports are identified with a `PA` for "Pacific".
Headline Level 1 `<h1>`	`<h1>Flight Plan</h1>`	**Flight Plan**
Headline Level 2 `<h2>`	`<h2>Flight Plan</h2>`	**Flight Plan**

Headline Level 3 `<h3>`	`<h3>Flight Plan</h3>`	# Flight Plan
Headline Level 4 `<h4>`	`<h4>Flight Plan</h4>`	**Flight Plan**
Headline Level 5 `<h5>`	`<h5>Flight Plan</h5>`	**Flight Plan**
Headline Level 6 `<h6>`	`<h6>Flight Plan</h6>`	**Flight Plan**

Markup Físico

Tag	Code Example	Typical Rendering
Bold `<b>`	`Use the flight controls to keep the nose of the airplane at <b>a constant attitude</b> relative to the horizon.`	Use the flight controls to keep the nose of the airplane at **a constant attitude** relative to the horizon.
Italics `<i>`	`Have you read <i>Stick and Rudder</i>?`	Have you read *Stick and Rudder*?
Underline `<u>`	`Flying in the clouds on a summer afternoon, you run the risk of entering an <u>embedded thunderstorm</u>.`	Flying in the clouds on a summer afternoon, you run the risk of entering an <u>embedded thunderstorm</u>.
Superscript `<sup>`	`Avogadro's number is approximately equal to 6.022 x 10<sup>23</sup>`	Avogadro's number is approximately equal to 6.022×10^{23}
Subscript	`log<sub>e</sub>x`	$\log_e x$

`<sub>`		
Font Size `<font size=...>`	`I want a <font size=+2>huge </font> house, a <font size=+1>big</font> dog, and a <font size=-1> small</font> waist.`	I want a huge house, a big dog, and a small waist.
Font Color `<font color=...>`	`An airplane's navigation lights are <font color=green>green</font> on the right wing and <font color="#ff0000">red</font> on the left.`	An airplane's navigation lights are green on the right wing and red on the left.
Font Face `<font face=...>`	`The <font face="arial narrow, arial, helvetica">NASA Aviation Safety Program</font> is the only source of innovation.`	The NASA Aviation Safety Program is the only source of innovation.
Typewriter Text	`The terminal forecast`	The terminal forecast called for

| `<tt>` | ```
called
for winds
<tt>02015G25KT</tt>,
which means from the
northeast at
15 knots, gusting to 25
knots.
``` | winds `02015G25KT`, which means from the northeast at 15 knots, gusting to 25 knots. |
| Preformatted Text `<pre>` | ```
Winds aloft for Buffalo,
Boston,
and Nantucket, at 3000,
6000, and
9000':
<pre>
    3000    6000    9000
BUF 0517 0215+01 3306-01
BOS 2218 2325+08 2321+03
ACK 2118 2012+08 1917+03
</pre>
``` | Winds aloft for Buffalo, Boston, and Nantucket, at 3000, 6000, and 9000':<br><br>```
    3000    6000    9000
BUF 0517 0215+01 3306-01
BOS 2218 2325+08 2321+03
ACK 2118 2012+08 1917+03
``` |
| Blockquote `<blockquote>` | ```
Aviation safety quote:
<blockquote>
``` | Aviation safety quote:<br>All life is the management of |

`All life is the management of` `risk, not its elimination.` ` ` `— Walter Wriston,` `former Chairman of Citibank` `</blockquote>`	risk, not its elimination. — Walter Wriston, former Chairman of Citibank

Tag Atributos

core

```
class=name
id=name
```

específicos

```
<body class=name id=name background=url bgcolor=color link=color
vlink=color text=color >

<font color=color face=list size=value>

<p align=left,center,right>

<div align= left,center,right,justify>
```

Hyperlinks (1)

- *Hyperlinks*, often just called *links*, allow the user to jump to a new page or a new location within the same page.

- **Links absolutos**
  ```
  <a href="http://aviationweather.gov/">aviation weather
  site</a>
  <a
  href="http://groups.google.com/groups?hl=fr&group=rec.aviat
  ion.student">rec.aviation.student newsgroup</a>
  ```

- **Links relativos**
  ```
          <a href="glossary.txt">Glossary</a>
          <a href="docs/glossary.txt">Glossary</a>
  ```
  links relativo ao directório onde está o ficheiro html

  ```
          <a href="/docs/glossary.txt">Glossary </a>
  ```
  link relativo ao directório de raiz (DocumentRoot) no servidor

Hyperlinks (2)

- **Links relativos dentro de uma página web**

Primeiro tem que se criar um tag name ou tag id algures no texto:

```
<a name="DNS">DNS</a>
<a id="DNS">DNS</a> (melhor)
```

Agora podemos criar o link:

```
see the <a href="#DNS">DNS</a> (mesma página web)

see the <a href="glossary.html#DNS">DNS</a> (outra
página web)
```

- **Javascript hyperlinks**

```
<a href="javascript:alert(´Error!´)">
```

Breaks

Tag	Code Example	Typical Rendering
Paragraph <p>	``` "I'll be seeing you," he said. Then he walked away. ```	"I'll be seeing you," he said. Then he walked away.
Line Break 	```Carson's Plumbing 123 Main St. Seattle, WA 98101```	Carson's Plumbing 123 Main St. Seattle, WA 98101
Horizontal Rule <hr>	```And they lived happily ever after.<hr>The End```	And they lived happily ever after. ___ The End

Listas

Tag	Code Example	Typical Rendering

Ordered List `<ol>`	`Alaska summer survival gear:`
	
	`<ol>`
	`<li>rations for each occupant`
	`<li>one axe or hatchet`
	`<li>one first aid kit`
	`</ol>`
	
	`Common training airplanes:`
	
	`<ol type=A>`
	`<li>Cessna 172`
	`<li>Diamond DA20`
	`<li>Piper Tomahawk`
	`</ol>`
		Alaska summer survival gear:
		1. rations for each occupant
		2. one axe or hatchet
		3. one first aid kit
		
		Common training airplanes:
		A. Cessna 172
		B. Diamond DA20
		C. Piper Tomahawk

	`Class B VFR Weather Minimums:`
	`<ol type=i>`
	`<li>3 statute miles visibility`
	`<li>clear of clouds`
	`</ol>`
		Class B VFR Weather Minimums:
		  i. 3 statute miles visibility
		  ii. clear of clouds

Unordered List
`<ul>`
	`Checklist for Mexican Flying:`
	`<ul>`
	`<li>proof of airplane ownership`
	`<li>proof of liability insurance`
	`<li>pilot's license and medical`
	`<li>seldom asked-for documents:`
	  `<ul>`
		Checklist for Mexican Flying:
		• proof of airplane ownership
		• proof of liability insurance
		• pilot's license and medical
		• seldom asked-for documents:
		    ○ radio station license
		    ○ radio operator's license
		• border-crossing flight plan

| | ```
    <li>radio station
license
    <li>radio operator's
license
    </ul>
<li>border-crossing
flight plan
</ul>
``` | |
| **Definition List** `<dl>` | ```
<dl>
<dt>IFR
<dd>Instrument Flight
Rules
<dt>VFR
<dd>Visual Flight Rules
<dt>VOR
<dd>Very High Frequency
Omni Ranging
radio navigation beacon
</dl>
``` | IFR<br>    Instrument Flight Rules<br>VFR<br>    Visual Flight Rules<br>VOR<br>    Very High Frequency Omni Ranging<br>    radio navigation beacon |

Imagens

```
<img src="http://www.eveandersson.com/alex.jpg"
alt="my photo">

<a href="myCV.htm"> <img src="alex.jpg" alt="click
here to see my CV"> </a>

<a href="full_image.jpg"> <img src="thumbnail.jpg"
alt="click here to see a larger image"> </a>
```

Attribute	Code Example
Dimensions width/ height	`<img width=100 height=100 src="http://www.eveandersson.com/alex.jpg">`
Border border	`<img width=100 height=100 border=2 src="http://www.eveandersson.com/alex.jpg">`
Alignment align	`<img align=right width=100 height=100 src="http://www.eveandersson.com/alex.jpg">`

Alignment
align
	`<img align=left`
	`width=100 height=100`
	`src="http://www.eveandersson.com/alex.jpg">`
	`Canine-American`

Horizontal Space (on both sides)
hspace
	`<img hspace=10`
	`align=left width=100 height=100`
	`src="http://www.eveandersson.com/alex.jpg">`

Vertical Space (top and bottom)
vspace
	`<img vspace=10`
	`width=100 height=100`
	`src="http://www.eveandersson.com/alex.jpg">`

Tabelas

`<table>,` `</table>`	start and end a table
`<tr>, </tr>`	table row
`<td>, </td>`	table cell
`<th>, </th>`	table heading; like a table cell except that the text is bold and centered

```
<table border=0
  cellspacing=2
  cellpadding=5>
<tr bgcolor="#cecece">
 <th>Year</th>
 <th>Revenue</th>
 <th>Expenditures</th>
 <th>Profits</th>
</tr>
<tr bgcolor=white>
 <td>1999</td>
 <td>$58,295</td>
 <td>$73,688</td>
 <td>$(15,393)</td>
</tr>
<tr bgcolor="#cecece">
 <td>2000</td>
 <td>$902,995</td>
 <td>$145,400</td>
 <td>$757,595</td>
</tr>
</table>
```

Year	Revenue	Expenditures	Profits
1999	$58,295	$73,688	$(15,393)
2000	$902,995	$145,400	$757,595

Forms

To collect data from users, use the `form` tag:

```
<form method=POST action=/register/new.php>

<form method=GET action=/register/new.php> (não usar!)
```

Code Example

```
<form method=POST action=/survey/demographic.php>
<input type=hidden name=user_id value=2205>
Age: <input type=text size=2 name=age><br>
Sex: <input type=radio name=sex value=m>male
     <input type=radio name=sex value=f>female<br>
What are you interested in (check all that apply)?
<input type=checkbox name=interest value="aerobatics">Aerobatics
<input type=checkbox name=interest value="helis">Helicopters
<input type=checkbox name=interest value="IFR">IFR
<input type=checkbox name=interest value="seaplanes">Seaplanes
<br>
Where do you live?
        <select name=continent_live>
        <option value=north_america>North America
        <option value=south_america>South America
```

```html
        <option value=africa>Africa
        </select>
        <br>
Which continents have you visited?<br>
        <select multiple size=3 name=continent_visited>
        <option value=north_america>North America
        <option value=south_america>South America
        </select>
        <br>
Describe your favorite airplane trip:<br>
<textarea name=favorite_trip_story rows=5 cols=50></textarea>
<p>

<input type=file name="FileName" maxlength=12>
<input type=password name="Password">
<input type=submit value="Continue">
<input type=reset value="Reset">
</form>
```

Typical Rendering

Age: ☐

Sex: ◯ male ◯ female

What are you interested in (check all that apply)? ☐ Aerobatics ☐ Helicopters ☐ IFR
☐ Seaplanes

Where do you live? [▾]

Which continents have you visited?

North America	▲
South America	
Africa	▼

Describe your favorite airplane trip:

[text area]

[Continue]

Divisões

Para definir a estrutura e aplicar um estilo

```
<div class="product" > ... </div>
<div id="navbar-header"> ... </div>

<span class="..." > ... </span>
```

Code Example

```
<div class="collapse navbar-collapse" id="myNavbar">
  <ul class="nav navbar-nav">
    <li ><a href="#links">Links</a></li>
    <li ><a href="#docs">Docs</a></li>
    <li ><a href="#exemplos">Exemplos</a></li>
    <li ><a href="calendar.html">Calendário</a></li>
  </ul>
</div>
```

Tag eventos

Eventos activam código JavaScript

Evento	HTML Tag
Evento	**HTML Tag**
onClick= onDblClick=	quase todas
onKeyDown= onKeyPress= onKeyUp=	
onMouseDown= onMouseUp= onMouseOver= onMouseOut=	
onFocus=	\<a> \<body> \<button> \<input> \<select> \<textarea>
onLoad= onUnLoad= onSubmit= onReset=	\<body> \<body> \<form> \<form>

Caracteres Especiais

Entity	Code Example	Typical Rendering
a, tilde `ã`	`cão`	cão
e, acute accent `é`	`café`	café
non-breaking space ` `	`a     b`	a b
greater-than `>`	`4 > 3`	4 > 3
less-than `<`	`5 < 6`	5 < 6
copyright `©`	`© 2004`	© 2004
pound sterling `£`	`£50`	£50

Cores

- Nomes de cores e valores RGB definidos no standard HTML

```
Aqua        #00FFFF
Black       #000000
Blue        #0000FF
Fuchsia     #FF00FF
Grey        #808080
Green       #008000
Lime        #00FF00
Maroon      #800000
Navy        #000080
Olive       #808000
Purple      #800080
Ref         #FF0000
Silver      #C0C0C0
Teal        #008080
Yellow      #FFFF00
White       #FFFFFF
```