Web Application Development HTML

Contents

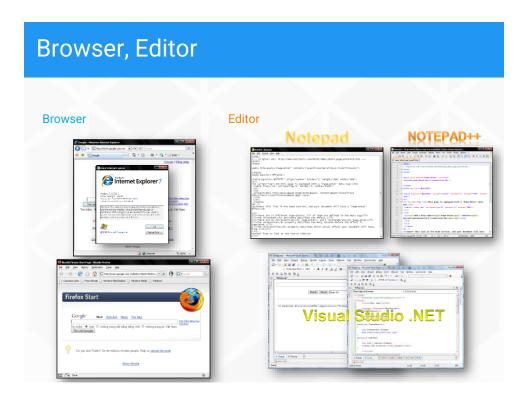
- ☐ Introduction to HTML
- ☐ HTML Document Structure
- □ Basic Tags
- ☐ List Tags
- ☐ Link Tags
- □ Table

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- □ Introduction to HTML
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Introduction to HTML

- ☐ HTML HyperText Markup Language
- ☐ It is the language used for creating web pages and web applications.
- ☐ It structures the content on the web, allowing browsers to interpret and display the content correctly
- ☐ A web page primarily consists of two parts:
 - ☐ The data of the webpage (text, sound, images...)
 - ☐ HTML tags are used to format and describe how the data is displayed on the browser



HTML Versions

- ☐ As stipulated by the W3C organization
- ☐ The basic standards:
 - ☐ HTML 4.01
 - ☐ XHTML 1.0 Transitional
 - ☐ XHTML 1.0 Strict
 - ☐ XHTML 1.1
 - ☐ HTML 5

How to check if the HTML document is written to standard?

http://validator.w3.org/

HTML tags

- ☐ <open tag> Data </close tag>
- ☐ Tag name → always mnemonic
 - ☐ Example: **b** ~ Bold, **i** ~ Italic, **p** ~ Paragraph
- ☐ Tags include both self-closing tags
 , <hr/>

this string of characters is bolded

□ General Syntax

<tagname AttributeName="value"> Data </tagname>

■ Example:

- ☐ <div> Web Application Development </div>
- <div id="txtDiv" style="color:#0000CC"> Web Application Development </div>

Syntax

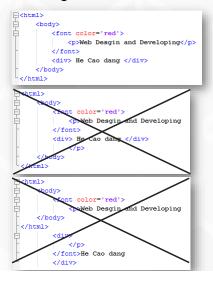
HTML code	Display
 b> This is a line of text that is Bolded	This is a line of text that is Bolded
<h3> Text at heading level 3 </h3>	Text at heading level 3

Notes:

- The value of the Attribute of the Tag **must be** placed in double guotes
- Does not distinguish between <u>uppercase</u> and <u>lowercase</u>, must be written in lowercase
- Ignore extra spaces and line breaks, new lines

Syntax

☐ Note: Tags must be absolutely nested





Challenge

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml">

<head>

<title>Welcome to HTML</title>

<style type="text/css">

body

{

background-color: Orange;
}

</style>

</head>

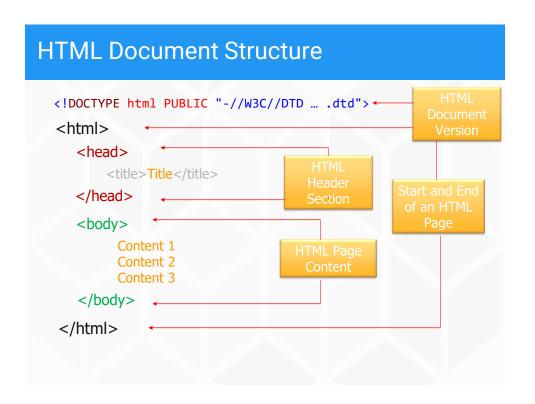
<head>

<hea
```

XHTML Standard

- ☐ XHTML = HTML + XML
 - ☐ All opening HTML tags must have a closing tag
- ☐ Example:

 - □ <hr> → <hr/>
 - \Box \rightarrow
 - \Box <input> \rightarrow <input/>



HTML Document Structure

- $\hfill \square$ DOCTYPE : Defines the document type and version of HTML
- ☐ <html></html> : Wraps the entire content of the document
- <head></head> : Contains meta-information about the document, link to CSS stylesheets, character set declarations, and more
- ☐ <title></title> : Specifies the title of the HTML document
- State of the HTML document, such as text, images, links, etc

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"</pre>
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
   <title>Welcome to HTML</title>
   <style type="text/css">
       body
                                          Welcome to HTML ...
       {
           background-color: Orange;
                                                    </style>
                                         A Favorites
                                                          🏉 Welcome to HTM
</head>
<body>
                                         Hello World!
   <h3>
       Hello World !</h3>
</body>
                                                      G G
</html>
```

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- ☐ Introduction to HTML
- ☐ HTML Document Structure
- **□** Basic Tags
- ☐ List Tags
- □ Link Tags
- ☐ Table

Basic Tags

- ☐ Declaration and Document Structure Tags
- ☐ Heading and Text Tags
- □ Image Tags
- □ Container Tags

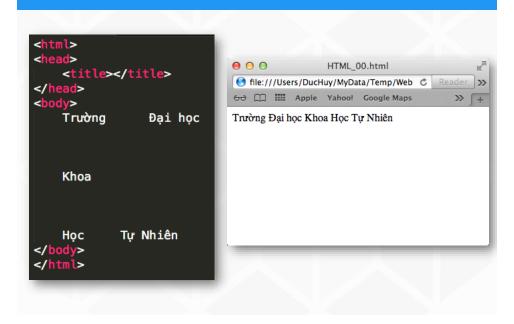
Declaration and Document Structure Tags

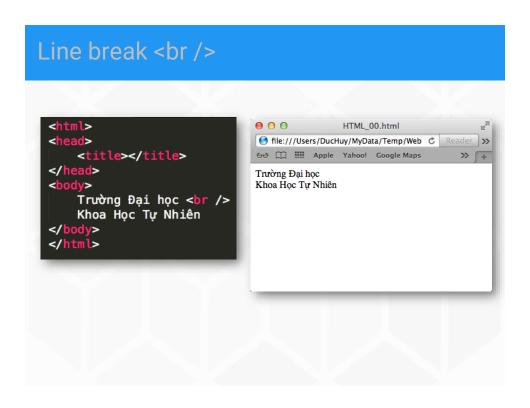
- □ <!DOCTYPE html>: Declares the document type and HTML version.
- □ **<html>**: Defines the beginning and end of an HTML document.
- □ **<head>:** Contains meta information about the document and links to other resources like CSS and JavaScript.
- □ **<body>:** Contains the actual content of the document, such as text, images, and links.

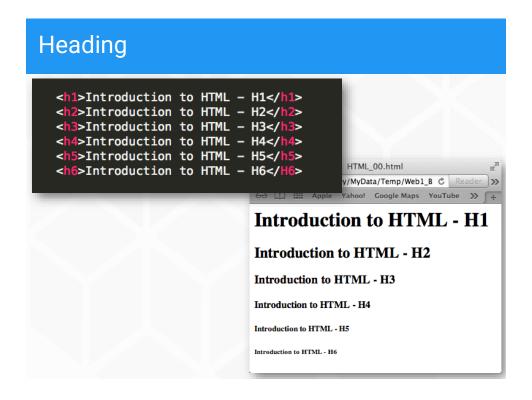
Heading and Text Tags

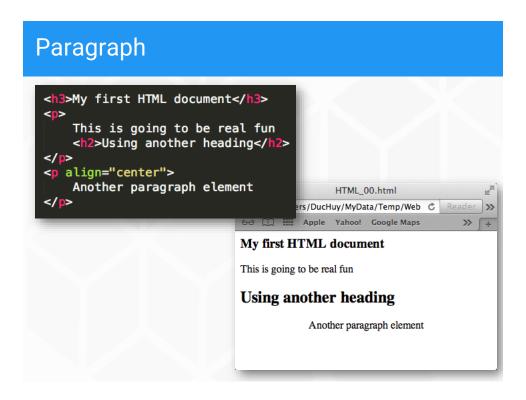
- □ Block Text Formatting Tags
 - ☐ Heading: <h1>, <h2>, <h3>, <h4>, <h5>, <h6>
 - □ Paragraph:
 - ☐ List Item: <1i>
 - ☐ Horizontal Rule: <hr />
- ☐ Inline Text Formatting Tags
 - ☐ Text formatting: , <i>, and
 - ☐ Create hyperlinks: <a>
 - ☐ Line break:

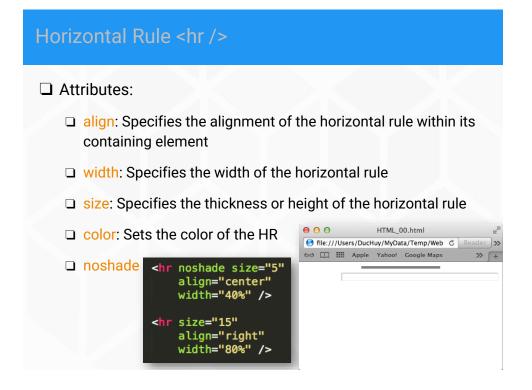
Browsers automatically normalize text







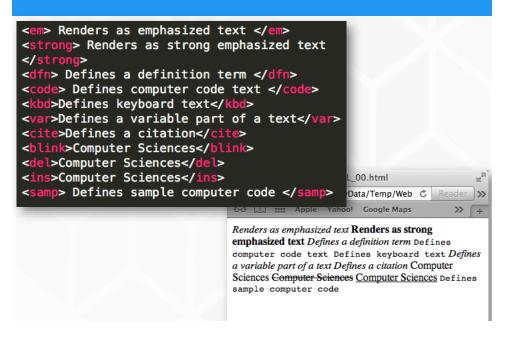


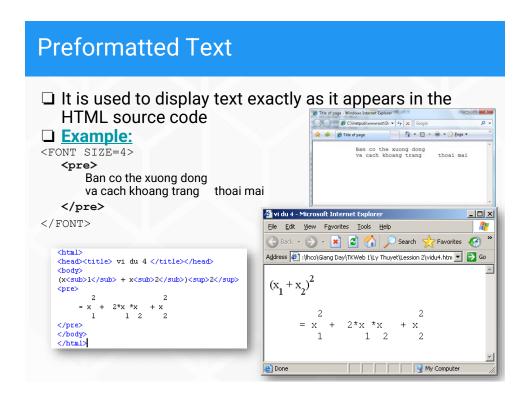


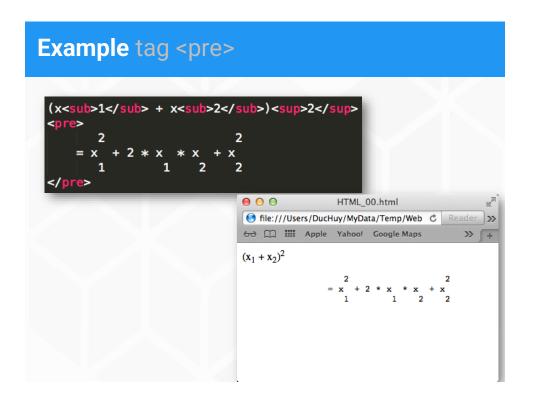
Example Text formatting

```
<br/>th>This text is bold</b>
<strong>
    This text is strong
                                                                  HTML_00.html
</strong> <br />
                                                  file:///Users/DucHuy/MyData/Temp/W
                                                  This text is big
                                                  This text is bold This text is strong
</big> <br />
                                                  This text is big
<em>
                                                  This text is emphasized
    This text is emphasized
                                                  This text is italic
</em> <br />
                                                  This text is small
<i>>
                                                  This text contains a2
    This text is italic
                                                  This text contains x^2 = a \times a
</i> <br />
<small>
    This text is small
</small> <br />
This text contains a<sub>2</sub>
<br />
This text contains x < sup > 2 < /sup > = a x a
```

Example Text formatting







Special Characters

- ☐ How to display special characters?
- ☐ Special characters: <, >, &
- ☐ Double quotation marks "
- ☐ Specific symbols: @ © ®
- **.....**



List of Special Characters

Result	Description	Entity Name	Entity Number
"	quotation mark	"	& #34;
&	ampersand	&	& ;
<	less-than	<	& #60;
>	greater-than	>	> ;

To display <a href="Khoa hoc tu nhien" "Khoa hoc tu nhien" the corresponding HTML code is:"

<Khoa hoc tu nhien> "Khoa hoc tu nhien"

Reference: http://en.wikipedia.org/wiki/List of XML and HTML character entity references

Image Tags

- □ : It is a self-closing tag
- □ Some of the most commonly used attributes for the tag:
 - □ **src**: This is a required attribute that specifies the URL or file path to the image you want to display
 - ☐ alt: Also required, this attribute provides alternative text for the image. It's displayed if the image cannot be loaded and is important for accessibility
 - □ align: Determines the alignment of the image with respect to surrounding text. Common values are "left," "right," "top," "middle," and "bottom."
 - □ boder: Sets the width of a border around the image (default=0)
 - ☐ width: Specifies the width of the image in pixels
 - ☐ *height*: Specifies the height of the image in pixels

Image Tags

HTML Tag	Explanation
	It is used to embed images into a web page
<map></map>	It is used in conjunction with the <area/> and tags to create clickable image maps. An image map allows you to define multiple clickable regions on an image, where each region links to a different URL or performs a specific action when clicked
<area/>	It is used to define individual clickable areas within an image map created using the <map> tag. Each <area/> element defines a specific region on an image, and when a user clicks within that region, it triggers an action, such as opening a link or executing a JavaScript function</map>

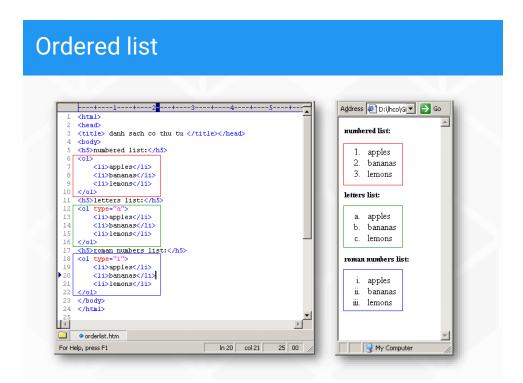
Example of Setting a Background Image for a Website

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List Tags

List Type	HTML Tag	List item
Ordered list		<
Unordered list		<
Definition List (Description List)	<dl></dl>	<dt>, <dd></dd></dt>
Nested Lists		
Menu Lists	<menu></menu>	<



Ordered list

```
----+---1----+---2<mark>-</mark>---+---3----+---4----+---5-----
                                                                             Address @ D:\lhco\Giang Day\TKWeb 1\Ly Thuyet\Lession 2\complex-or ▼ → Go
    <head><title>Ordered List Example</title></head>
                                                                              Ordered lists can be very simple.
    <ppordered lists can be very simple.</p>

Item 1
                                                                                    Item 1
         Item 2Item 3
                                                                                2
                                                                                    Item 2
                                                                                3. Item 3
     (p>Ordered lists can have a variety of types.
                                                                              Ordered lists can have a variety of types
         type="a">Lowercase letters
         cli type="A">Uppe=rase letters
cli type="A">Uppercase letters
cli type="1">Uppercase Roman numerals
cli type="1">Uppercase Roman numerals
cli type="1">Arabic numerals
cli type="1">Arabic numerals

                                                                                    Lowercase letters
                                                                                B. Uppercase letters
                                                                                iii. Lowercase Roman numerals
                                                                               IV. Uppercase Roman numerals
    Ordered lists can start at different values
    and with different types.
                                                                                Arabic numerals

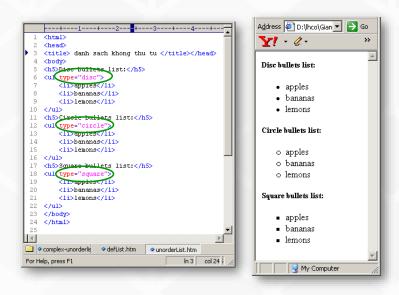
This should be j
This should be c

                                                                              Ordered lists can start at different values and with different types.
          Lists can nest
                                                                                    This should be i

    Nesting depth is unlimited
                                                                                 c. This should be c
                                                                                       1. Lists can nest
                </01>
                                                                                             1. Nesting depth is unlimited

</body>
30
   </html>
                                                                                                       My Computer
```

Unordered list

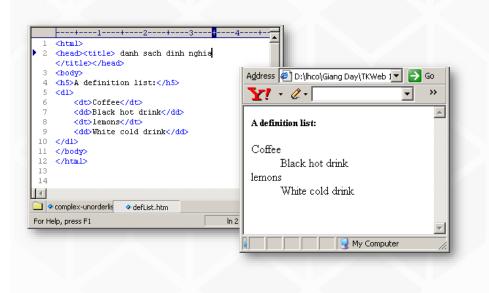


Reversed attribute

```
  The number of list items is the starting number,
  and then it counts down...
  1:>...to 1.
```

- 3. The number of list items is the starting number,
- and then it counts down...
- 1. ...to 1.

Definition List (Description List)



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URL

☐ Types of HTTP Addresses: 7 cases

Case1: http://server/

Example: http://www.yahoo.com/

Case2: http://server/file

Example: http://games.yahoo.com/index.php

Case3: http://server/directory/

Example: http://games.yahoo.com/games/

Case4: http://server/directory/file

Example: http://games.yahoo.com/download/

Dominoes.exe

URL

Case5: http://server/directory/file#marker

Example: http://games.yahoo.com/index.php# Puzzle

Case6: http://server/directory/file?parameters

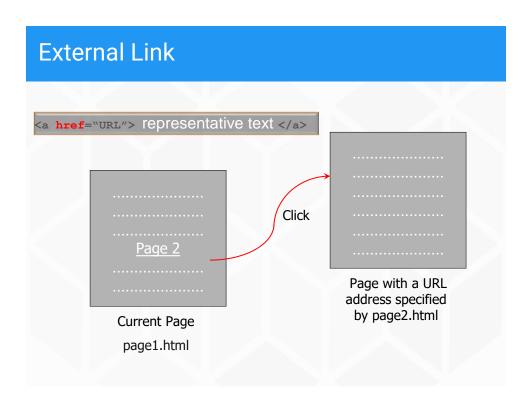
Example: http://www.google.com.vn/search?hl=vi&q=Teach&meta=1

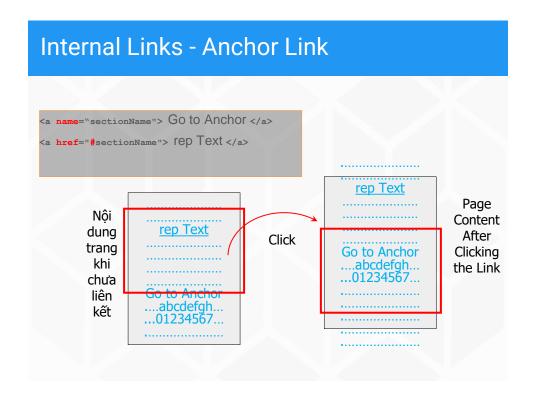
Case7: http://server:port/directory/file

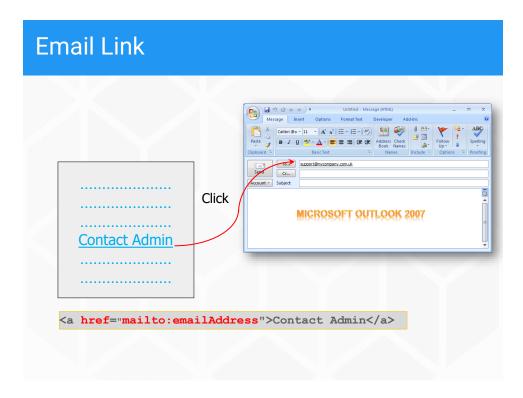
Example: http://www.microsoft.com:8080/products/greetings.html

Tag <a> (anchor) Syntax: ⟨a href="URL" target="..."> Linked content ⟨/a⟩ The "target" attribute of the <a> tag can take several values: 'name': You can specify a custom name for the target window or frame | blank: This value opens the linked content in a new, unnamed browser window or tab | parent: If the web page containing the link is inside a frameset or iframe, this value opens the linked content in the parent frame | self (default): It opens the linked content in the same browser window or tab. | top: this value opens the linked content in the top-level frame, breaking out of all nested frames | top: this value opens the linked content in the top-level frame, breaking out of all nested frames | top: this value opens the linked content in the top-level frame, breaking out of all nested frames

Link Classification	n	
 □ Internal Links □ External Links □ Email Links □ Navigation Links □ Footer Links □ Download Links □ Social Media Links □ Anchor Links □ Image Links 		







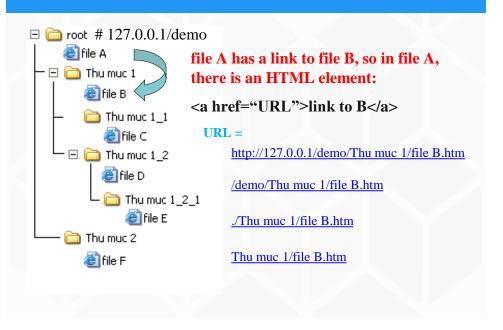
URL Classification

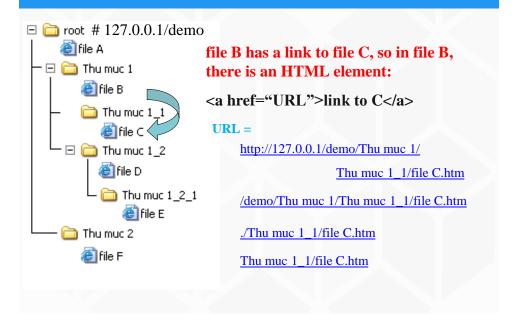
- ☐ URLs (Uniform Resource Locators) can be classified into two main categories:
 - □ Absolute URLs: An absolute URL provides the complete and full address of a resource on the internet. It includes the scheme (e.g., "http," "https," "ftp"), the hostname (domain name or IP address), and the path to the resource.
 - ☐ **Relative URLs**: A relative URL specifies the location of a resource in relation to the current webpage's location. It doesn't include the scheme or hostname..

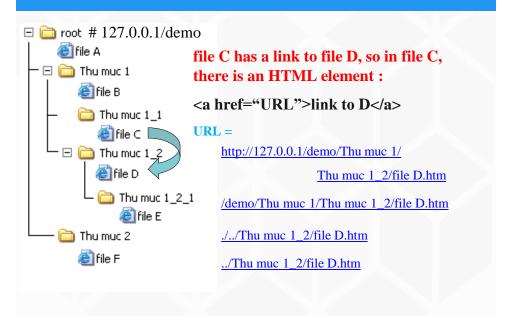
 Linked content

Notations of Relative URLs

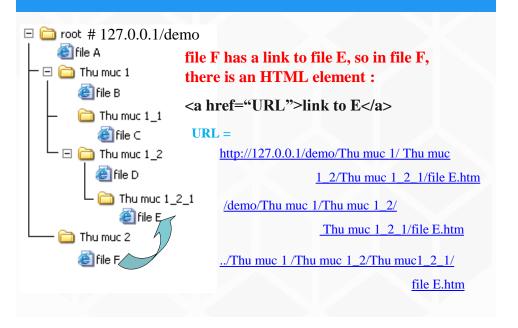
Notation	Description
No Notation (Path Only)	If a URL does not start with any notation or special character, it is treated as a relative URL and represents a resource within the same directory as the current webpage.
/	Using a single forward slash / at the beginning of a relative URL makes it root-relative. It starts navigation from the root directory of the website, regardless of the current webpage's location
./	The ./ notation represents the current directory where the current webpage is located
/	The/ notation represents the parent directory of the current directory
#	When used at the end of a URL, the # notation is used for fragment identifiers within the same webpage

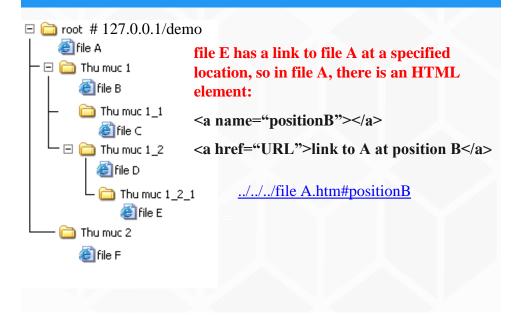












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Simple Table

Bảng HTML đơn giản

0.1	0.2
1.1	1.2
2.1	2.2

Table Tags

	Tag	Description
		Defines the beginning of a table
	<pre><caption></caption></pre>	Provides a caption or title for the table
	>	Defines a table row
		Defines a table header cell. It is used to represent column or row headers.
		Defines a table data cell. It contains the actual content of the table, such as text, numbers, or other HTML elements
	<thead>, , <tfoot></tfoot></thead>	These elements group rows into table header, body, and footer sections, respectively. They help structure the table content and can be used for styling or JavaScript purposes

퉠 Giá vàng 9999

	ĐVT: t	r.đ/lượng
Loại	Mua	Bán
SBJ	31,520	31,540
SJC	31,490	31,560

Some attributes of the tags

	Attribute	Description
	colspan	Specifies the number of columns the cell should span
	rowspan	Specifies the number of rows the cell should span
	bgcolor	Sets the background color of the row / cell
	align	Aligns the content of the row / cell horizontally
	valign	Aligns the content of the row / cell vertically
	cellpadding	Specifies the space between the cell content and cell borders
	cellspacing	Determines the space between cells

Example: colspan - rowspan



```
| Name | Telephone |
| Bill Gate | (505)256-3600 | 0844 41 45 387 |
```

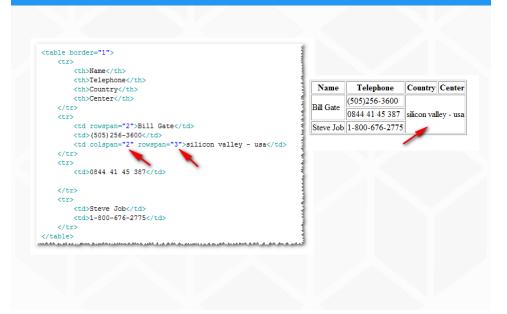


 Name
 Telephone

 Bill Gate
 (505)256-3600

 0844 41 45 387

Combining colspan and rowspan



Setting the background color for the table

```
<caption>Bang HTML don gian
 0.1
  0.2
            Bảng HTML đơn giản
 0.2
             0.1
  1.1
  1.2
 2.1
  2.2
```

Setting the background color for a row

```
<caption>Bang HTML don gian
  0.1
              Bảng HTML đơn giản
  0.2
 0.2
               0.1
 1.1
  1.2
              2.1
                   2.2
 2.1
  2.2
```

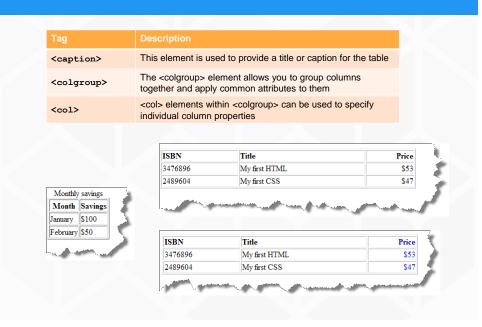
Setting the background color for a cell

```
<caption>Bang HTML don gian
 0.1
  0.2
 1.1
  1.2
               Bảng HTML đơn giản
 0.2
 0.1
  2.1
                   1.2
  2.2
 2.1
```

Setting the background color for a column

```
<caption>Bang HTML don gian
             Bảng HTML đơn giản
  0.1
                  0.2
  0.2
                 1.2
 2.2
  1.1
  1.2
 2.1
  2.2
```

Special child elements of Table



Tag <caption> - <col>

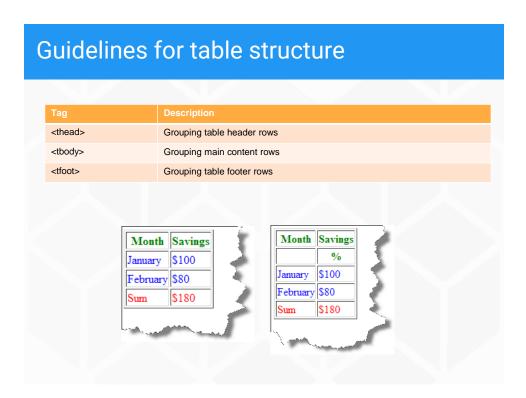
```
<caption>iPhone Price</caption>
  <col style="background-color:#09F" />
<col style="background-color:#F30" />
  Type
  >
     iPhone 3GS - 8GB
     $99
  iPhone 4G - 16GB
     $199
     iPhone 3GS - 32GB
     $299
```

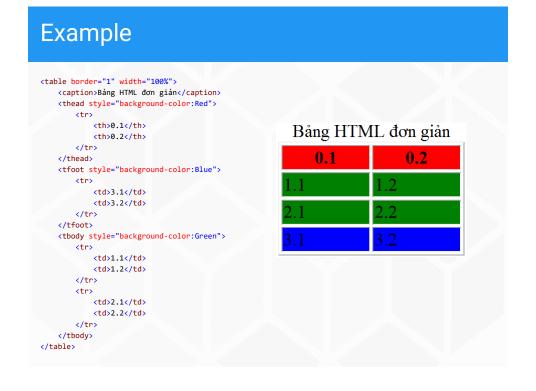


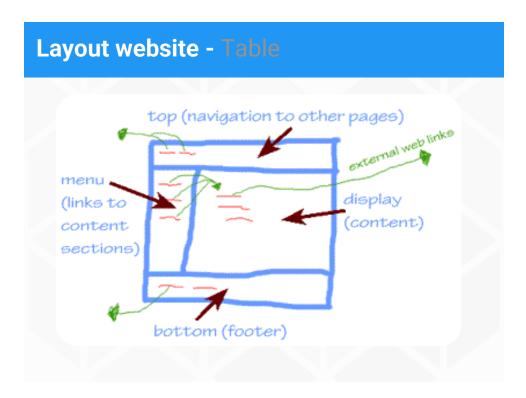
Tag <colgroup>

```
<colgroup span="2" style="background-color:#09F" />
<colgroup style="background-color:#F30" />
    Type
    Price
    Made in
    iPhone 3GS - 8GB
    $99
    USA
    iPhone 4G - 16GB
    $199
    USA
  iPhone 3GS - 32GB
     $299
     USA
```

Type Price Made in iPhone 3GS - 8GB \$99 USA iPhone 4G - 16GB \$199 USA iPhone 3GS - 32GB \$299 USA







Some useful attributes

autofocus
<pre></pre>
Automatically move the cursor to the last HTML element with the 'autofocus' attribute when the web page is opened placeholder
<pre></pre>
Display a placeholder text inside the textbox to suggest the content to be filled in. spellcheck
<pre><textarea spellcheck="true"></textarea></pre>
☐ Enable or disable spell check. maxlength
<pre> <input maxlength="20" type="text"/></pre>
☐ Limit the number of characters that users can enter. contenteditable
<pre> <pre> <pre> <pre> <pre> <pre> <pre> <pre> </pre></pre></pre></pre></pre></pre></pre></pre>
Allow changing the content inside an element with the 'contenteditable' attribute.
http://www.sitepoint.com/6-nifty-time-saving-html-attributes/

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- **☐** Assignment

Assignment



- ☐ Use the knowledge you've learned to create a web page displaying your team's information, including:
 - ☐ A group photo (illustration is sufficient)
 - Detailed team information including team name, list of members, and genders
 - ☐ Use an image map so that clicking on a member's face will navigate to the member's information page

Assignment



- ☐ The content of the member information page, includes:
 - □ Avatar
 - □ Full name
 - □ Gender
 - □ Date of birth
 - □ Email
 - □ Phone
 - □ Link back to the team information page

Assignment



☐ File and folder structure of the submission:

