

HTML FUNDAMENTALS

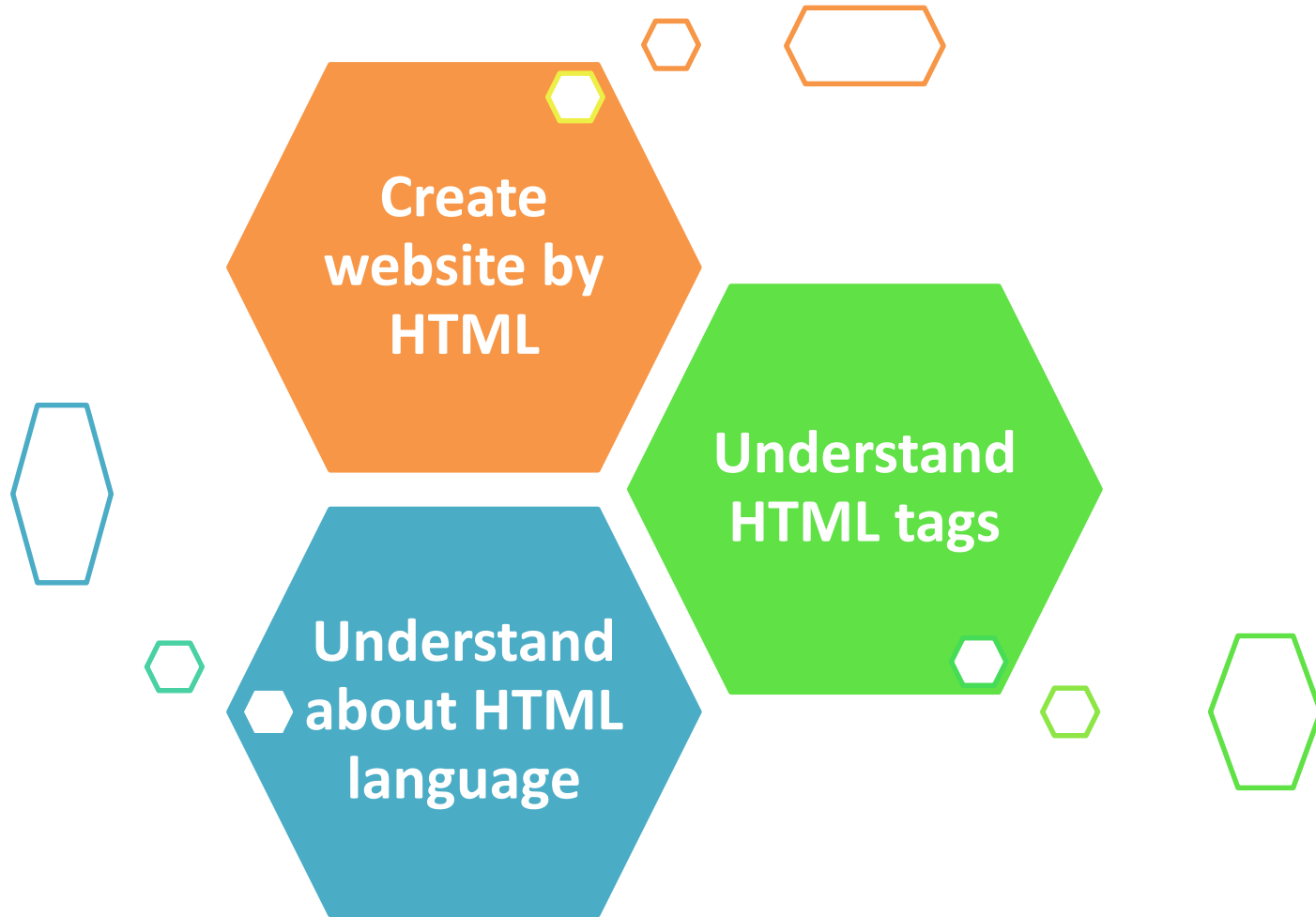


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Table of contents

- ◇ **Introduction to HTML**
- ◇ **Basic HTML Tags**
- ◇ **Using Table**
- ◇ **Using Forms**

Learning Goals



Section 1

HTML INTRODUCTION SYNTAX

- ❖ HTML stands for **H**yper **T**ext **M**arkup **L**anguage.
- HTML is a **markup** language for **describing** web documents (web pages).
 - ✓ A markup language is a set of **markup tags**.
 - ✓ HTML documents are described by **HTML tags**.
 - ✓ Each HTML tag **describes** different document content.
- **Using HTML tags and elements, we can:**
 - ✓ Control the **appearance** of the page and the content.
 - ✓ **Publish** online documents and **retrieve** online information using the links inserted in the HTML document.
 - ✓ **Create** on-line forms. These forms can be used to collect information about the user, conduct transactions, and so on

If you would like information about a specific machine, browse to that machine and click the Request Information link.

Information Request

Company Name *

Contact Name *

Title/Position *

Address *

City *

State/Province *

Zip/Postal Code *

Country *

Phone *

Fax *

Email *

Company Website

Please send me information on the Small Roll Rewinders following machines *

☐ D3P

☐ 11F

☒ D5

Material/Converting Specifications

Additional Comments

Independent Testing Services
Integration, Performance, Compatibility, Automation testing

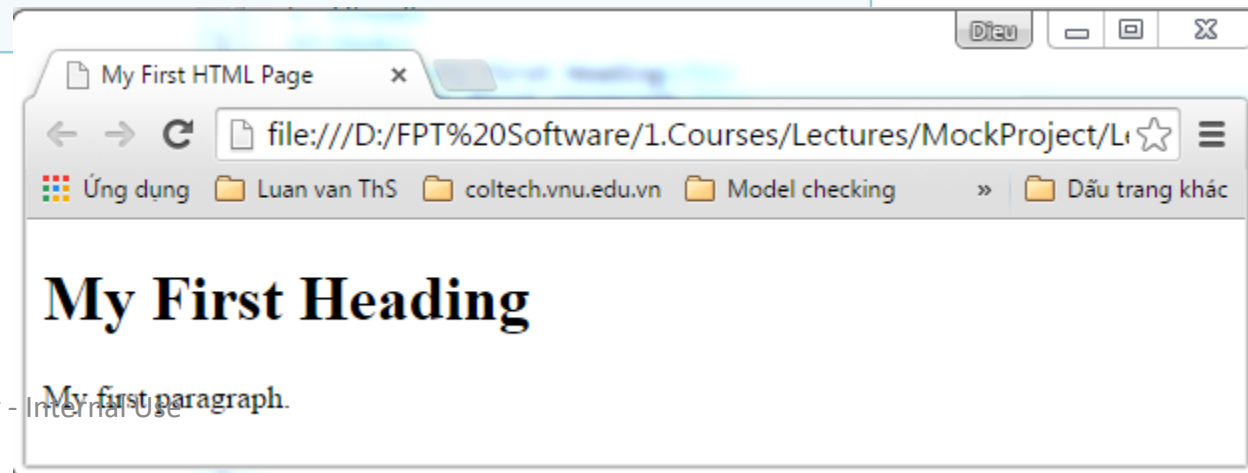
Package Implementation
ERP (SAP, Microsoft Dynamics)

SPU
Data Entry Business Solutions Image Processing

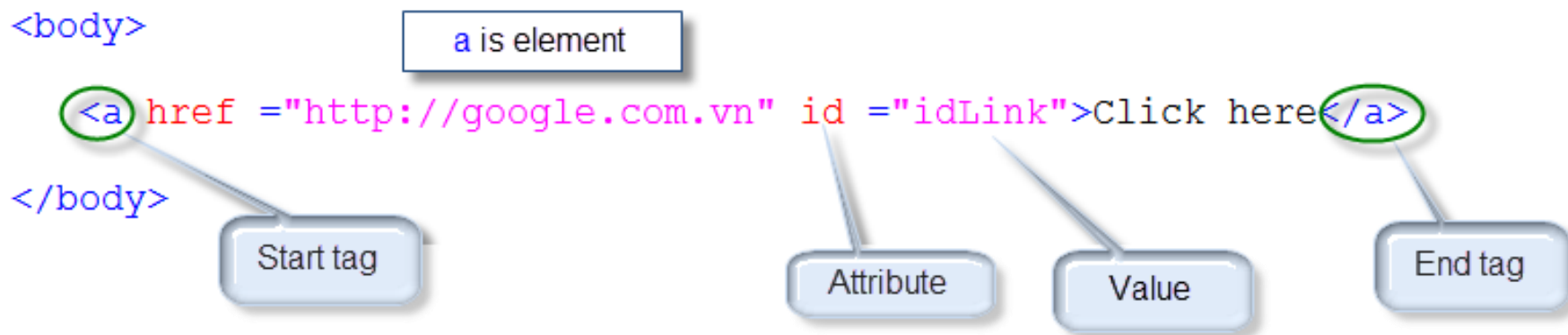
MOODY
Enterprise Migration Application Development & Testing

HTML Page Format

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



- Each tag in HTML start with **start tag** and **finish** by close tag
- HTML consist of:**
 - ✓ **Element** - identifies the tag.
 - ✓ **Attribute** - describes the tag.
 - ✓ **Value** - the content that is assigned to the attribute.



- An **HTML element** is everything from the *start tag* to the *end tag*:

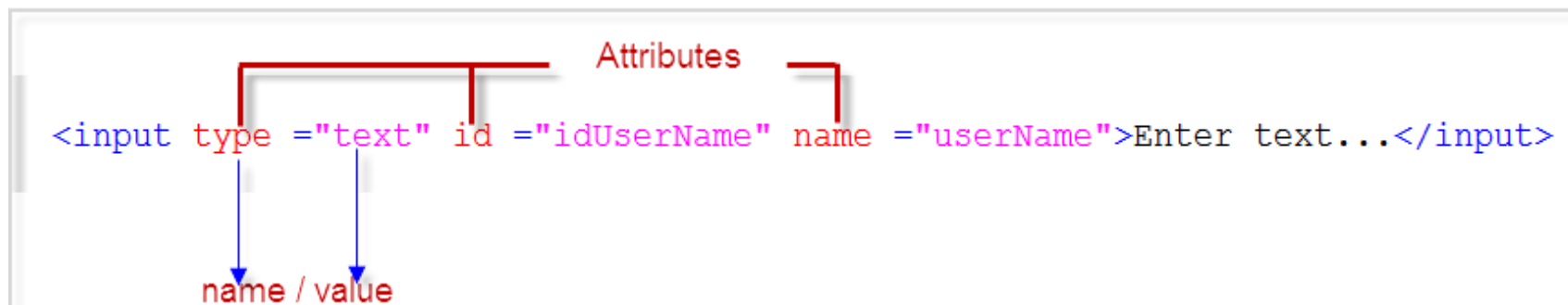
Start tag *	Element content	End tag *
<p>	This is a paragraph	</p>
	This is a link	

- **p, a, br** are elements

- Comment tags are used to insert comments in the HTML source code.

```
<!-- Write your comments here -->
```

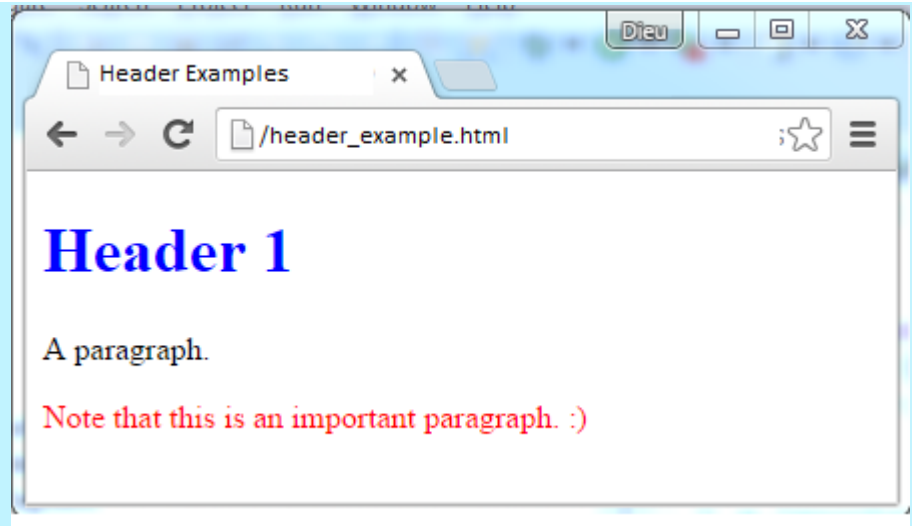
- Attributes provide **additional information** about an element.
- Attributes are always specified in **the start tag**
- Attributes come in name/value pairs like: **name="value"**



Attribute	Value	Description
class	<i>classname</i>	Specifies a classname for an element
id	<i>id</i>	Specifies a unique id for an element
style	<i>style_definition</i>	Specifies an inline style for an element
title	<i>tooltip_text</i>	Specifies extra information about an element (displayed as a tool tip)

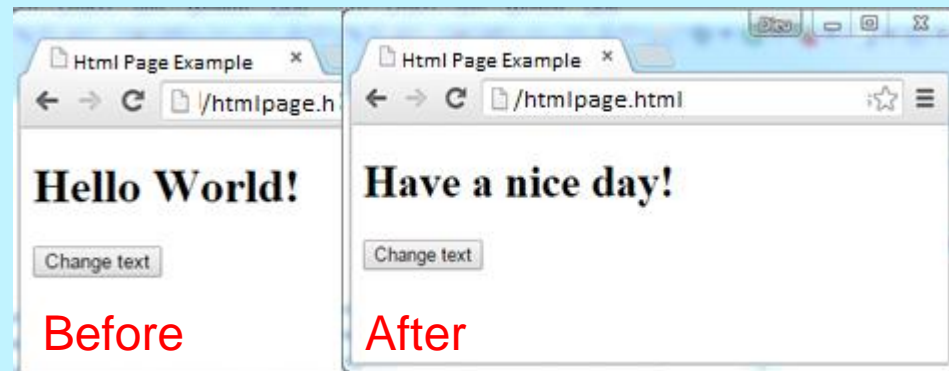
HTML Attributes sample 1

```
<!DOCTYPE html>
<html>
<head>
<style type="text/css">
  h1.intro {
    color: blue;
  }
  p.important {
    color: red;
  }
</style>
</head>
<body>
  <h1 class="intro">Header 1</h1>
  <p>A paragraph.</p>
  <p class="important">Note that this is an important paragraph. :)</p>
</body>
</html>
```



HTML Attributes sample 2

```
<!DOCTYPE html>
<html>
<head>
<script type="text/javascript">
function displayResult() {
    document.getElementById("myHeader").innerHTML = "Have a nice day!";
}
</script>
</head>
<body>
    <h1 id="myHeader">Hello World!</h1>
    <button onclick="displayResult()">Change text</button>
</body>
</html>
```



Section 2

HTML BASIC TAGS

- Heading
- Paragraph
 - ✓ Preformatted
- Hyperlink
- Image tag
- Order list
- Iframes
- Physical Formatting

- Are used to define **HTML headings**, includes six levels of document **headings**:

<H1 ...> text H1 </H1> -- largest of the six

<H2 ...> text H2</H2>

<H3 ...> text H3</H3>

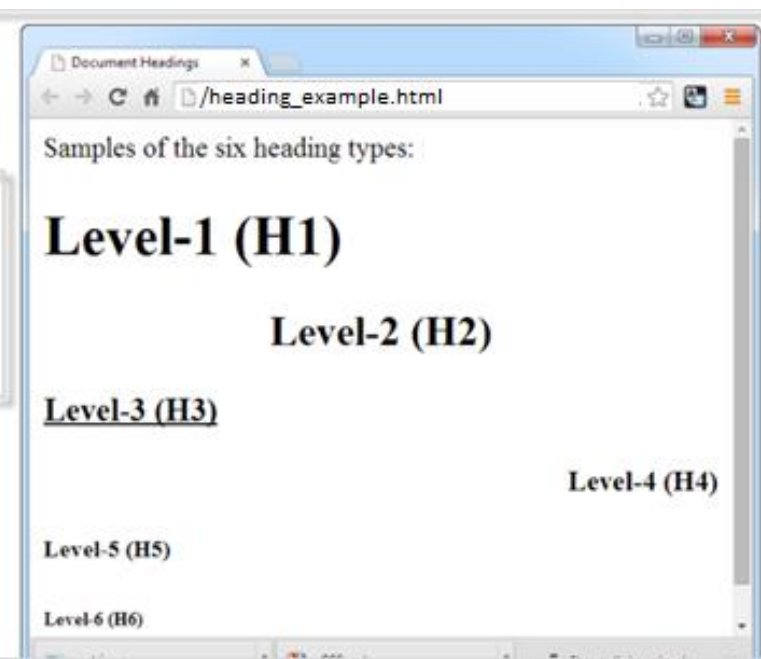
<H4 ...> text H4</H4>

<H5 ...> text H5</H5>

<H6 ...> text H6</H6> -- smallest of the six

```
<HTML>
<HEAD>
  <TITLE>Document Headings</TITLE>
</HEAD>
<BODY>
  Samples of the six heading types:
  <H1>Level-1 (H1)</H1>
  <H2 ALIGN="center">Level-2 (H2)</H2>
  <H3><U>Level-3 (H3)</U></H3>
  <H4 ALIGN="right">Level-4 (H4)</H4>
  <H5>Level-5 (H5)</H5>
  <H6>Level-6 (H6)</H6>
</BODY>
</HTML>
```

ALIGN="position" with value: left (default), center or right



- The `<hr>` tag defines a thematic^[chủ đề] break in an HTML page, and is most often displayed as a horizontal rule.
- The `<hr>` element is used to separate content (or define a change) in an HTML page:

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

<h1>This is heading 1</h1>
<p>This is some text.</p>
<hr>

<h2>This is heading 2</h2>
<p>This is some other text.</p>
<hr>

<h2>This is heading 2</h2>
<p>This is some other text.</p>

</body>
</html>
```

This is heading 1

This is some text.

This is heading 2

This is some other text.

This is heading 2

This is some other text.

<P> Paragraph tag (1/2)

- HTML documents are divided into paragraphs.
 - ✓ **<p>** defines a paragraph
 - ✓ Add align = "position" (left, center, right)
 - ✓ Multiple <P>'s do not create blank lines

Fully-specified text uses **<P> and </P>**

But **</P>** is optional

acronym syntax

Full syntax

```
<HTML>
<HEAD>
  <TITLE></TITLE>
</HEAD>
<BODY>
  <P>Here is some text </P>
  <P ALIGN="center"> Centered text </P>
  <P><P><P>
  <P ALIGN="right"> Right-justified text
  <!-- Note: no closing /P tag is not a problem -->
</BODY>
</HTML>
```



■ The HTML <pre> Element

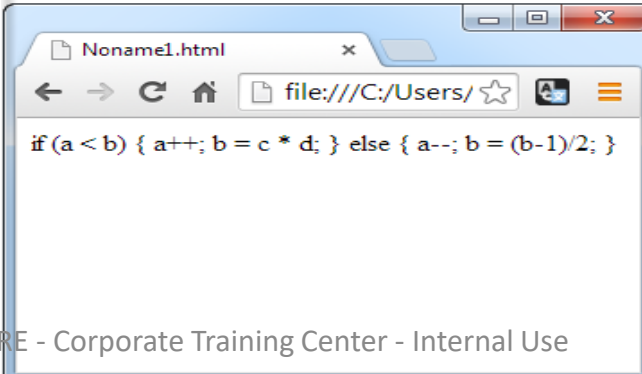
- ✓ The HTML <pre> element defines preformatted text.
- ✓ The text inside a <pre> element is displayed in a **fixed-width** font (usually Courier), and it preserves both **spaces** and **line breaks**.

■ Don't Forget the End Tag

■ HTML Line Breaks: the Poem^[tho'] Problem

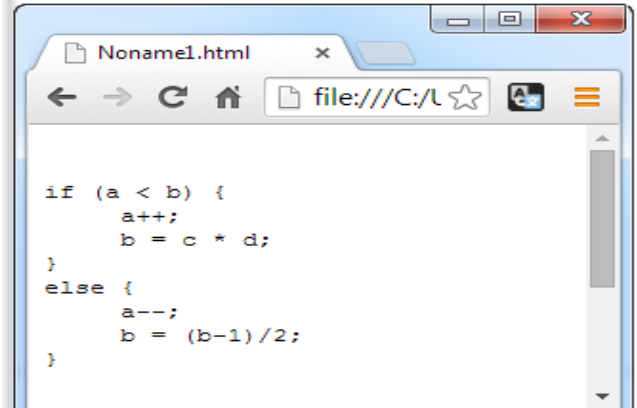
```
<body>
  if (a < b) {
    a++;
    b = c * d;
  }
  else {
    a--;
    b = (b-1)/2;
  }
</body>
```

not using <PRE> tag



```
<PRE>
  if (a < b) {
    a++;
    b = c * d;
  }
  else {
    a--;
    b = (b-1)/2;
  }
</PRE>
```

Using <PRE> tag



HyperLinks <a> tag

- Is used to link from one page to another.
- **Syntax:** Content< /A>

Link to an absolute URL:

1

If you get spam, contact Microsoft to report the problem.

Link to a relative URL:

2

See these references concerning our fine products.

Link to a section within a URL:

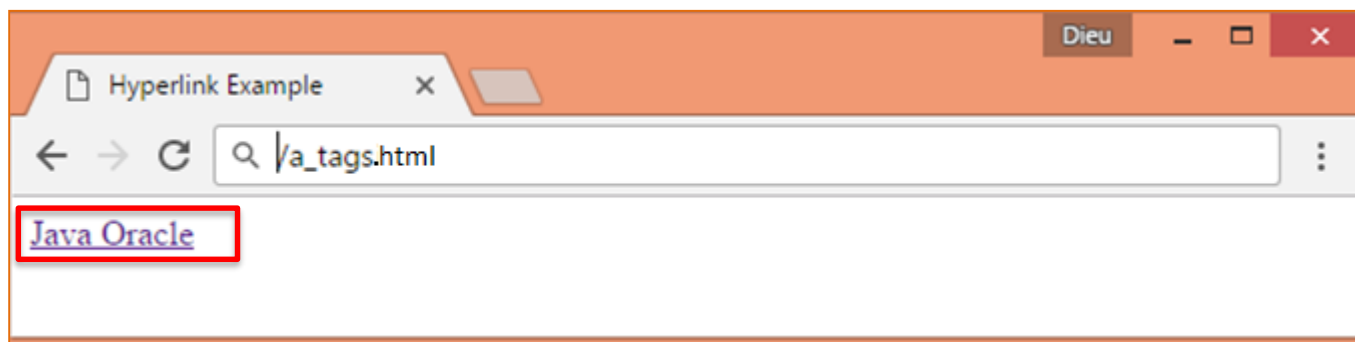
3

Amazon provided a reference for our company.

Hyperlink Examples

Code snippet

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"  
"http://www.w3.org/TR/html4/loose.dtd">  
<html>  
<head>  
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">  
  <title>Hyperlink Example</title>  
</head>  
<body>  
  <a href="https://www.oracle.com/java/index.html">Java Oracle</a>  
</body>  
</html>
```



Hyperlink Examples - local links

Code snippet

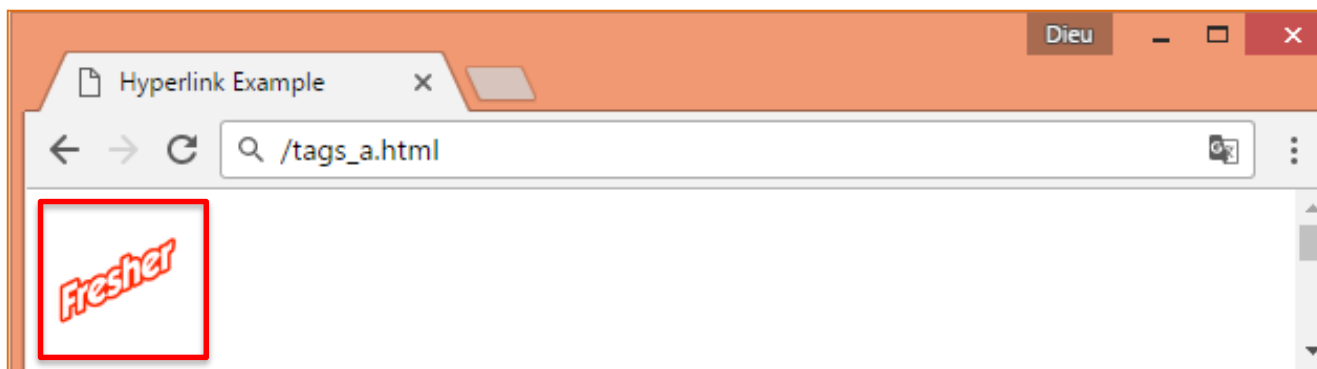
```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
  <title>Hyperlink Example</title>
</head>
<body>
  <!-- Local Links -->
  <a href="GuestRegister.jsp">Sign up</a>
</body>
</html>
```



Hyperlink Examples - Image as Link

Code snippet

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
  <title>Hyperlink Example</title>
</head>
<body>
  <!-- Local Links -->
  <a href="GuestRegister.jsp">
    
  </a>
</body>
</html>
```



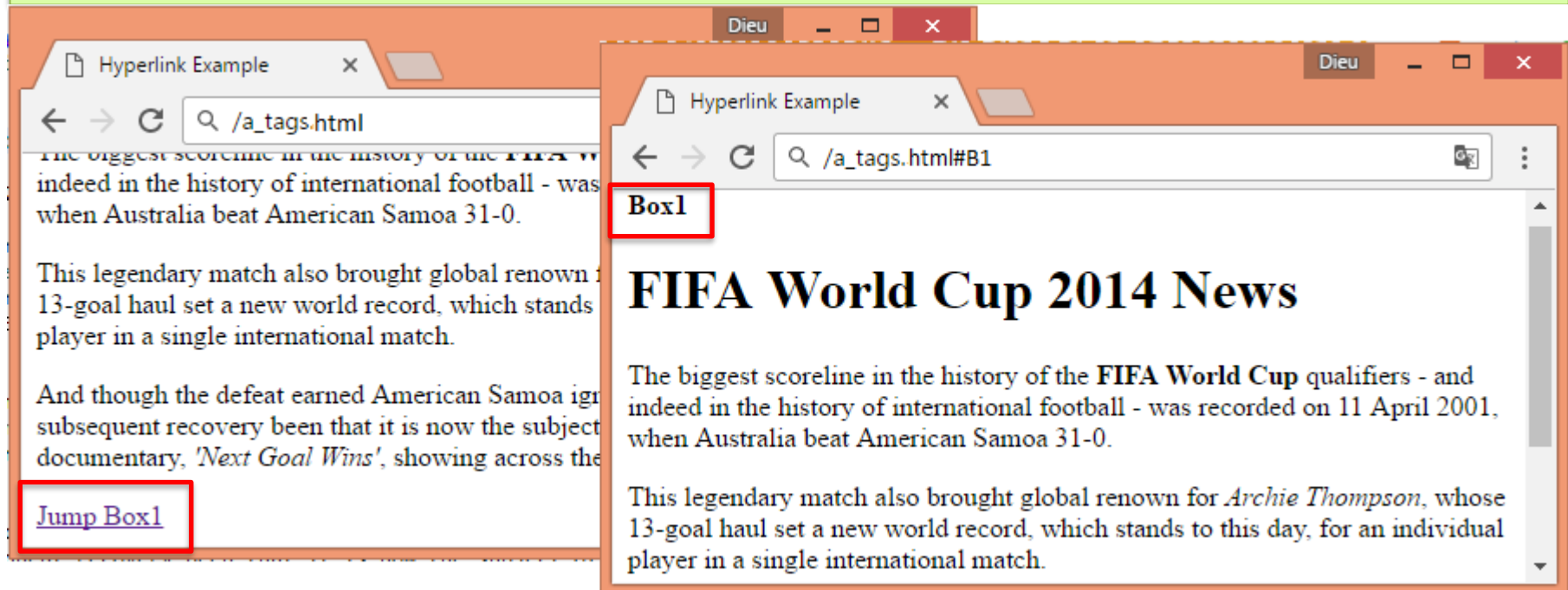
Hyperlink Examples - Create a Bookmark

Code snippet

```
<!--First, create a bookmark with the id attribute-->
<div id="B1"><b>Box1</b></div>

<!--Then, add a link to the bookmark ("Jump to Box1"), from within the same page-->
<a href="#B1">Jump to Box1</a>

<!--Or, add a link to the bookmark ("Jump to Box1"), from another page-->
<a href="html_demo.html#B1">Jump to Box1</a>
```



- To display image on a web page.

- **Syntax:**

```

```

- **In which:**

- The **src** attribute specifies the URL (web address) of the image;
- The **alt** attribute provides an alternate text for an image;
- The **style** attribute to specify the width and height of an image;

- Images scale to fit the space allowed.

Align=position	Image/Text Placement
Left	Image on left edge; text flows to right of image
Right	Image on right edge; text flows to left
Top	Image is left; words align with top of image
Bottom	Image is left; words align with bottom of image
Middle	Words align with middle of image

Images tag Example

Code snippet

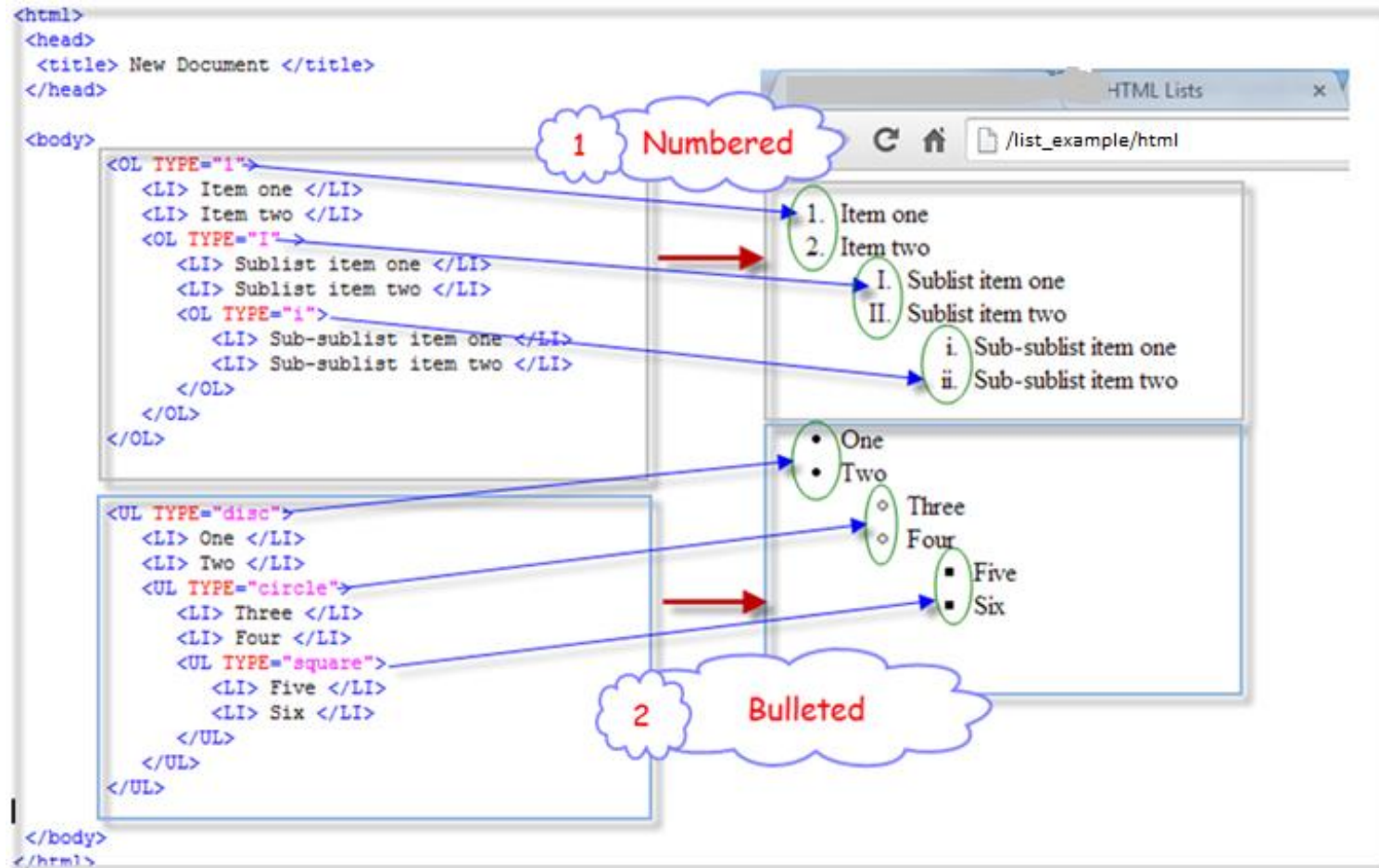
```
<!DOCTYPE html>
<html>
<head>
<title>Images tag</title>
</head>
<body>
<h1>FIFA World Cup 2014 News</h1>
<p>
  
  The biggest scoreline in the history of the <strong>FIFA World Cup</strong> qualifiers
  and indeed in the history of international football - was recorded on 11 April 2001,
  when Australia beat American Samoa 31-0.
</p>
</body>
</html>
```

align = "left"

align = "right"



- Use to order list of items by Numbered (Ordered List) or Bulleted (Unordered List):



- **Unordered HTML Lists - The Style Attribute**

Style	Description
list-style-type:disc	The list items will be marked with bullets (default)
list-style-type:circle	The list items will be marked with circles
list-style-type:square	The list items will be marked with squares
list-style-type:none	The list items will not be marked

- **Ordered HTML Lists - The Type Attribute**

Style	Description
list-style-type:decimal	The list items will be numbered with numbers (default)
list-style-type:upper-alpha	The list items will be numbered with uppercase letters
list-style-type:lower-alpha	The list items will be numbered with lowercase letters
list-style-type:upper-roman	The list items will be numbered with uppercase roman numbers
list-style-type:lower-roman	The list items will be numbered with lowercase roman numbers

- An iframe is used to display a web page within a web page.

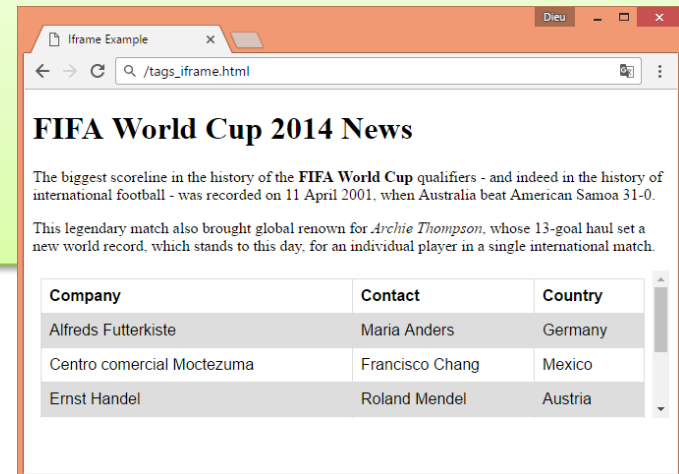
- **Iframe Syntax:**

```
<iframe src="url"
        style="border: border; width: width; height: height">
</iframe>
```

- **Example:**

Code snippet

```
<iframe src="tags_table.html"
        style="border: none; width: 100%; height: 40%">
</iframe>
```



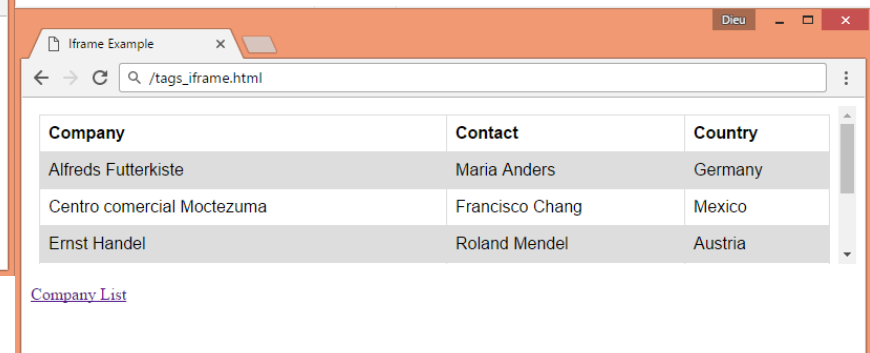
HTML Iframes - Target for a Link

- An iframe can be used as the target frame for a link.
- The **target** attribute of the link must refer to the **name** attribute of the iframe:

Code snippet

```
<iframe src="tags_img.html"
      name="iframe_a" style="border: none; width: 100%; height: 40%">
</iframe>

<p><a href="tags_table.html" target="iframe_a">Company List</a></p>
```



- The <div> tag defines a division or a section in an HTML document.
- The <div> tag is used to group block-elements to format them with CSS.
- **Tip:** The <div> element is very often used together with CSS, to layout a web page.

Code snippet

```
<div style="color:#0000FF">  
  <h3>This is a heading</h3>  
  <p>This is a paragraph.</p>  
</div>
```

- A file path describes the location of a file in a web site's folder structure.
- File paths are used when linking to external files like:
 - ✓ Web pages
 - ✓ Images
 - ✓ Style sheets
 - ✓ JavaScripts

Path	Description
<code></code>	picture.jpg is located in the same folder as the current page
<code></code>	picture.jpg is located in the images folder located in the current folder
<code></code>	picture.jpg is located in the images folder located at the root of the current web
<code></code>	picture.jpg is located in the folder one level up from the current folder

Physical Formatting Tags (1/2)

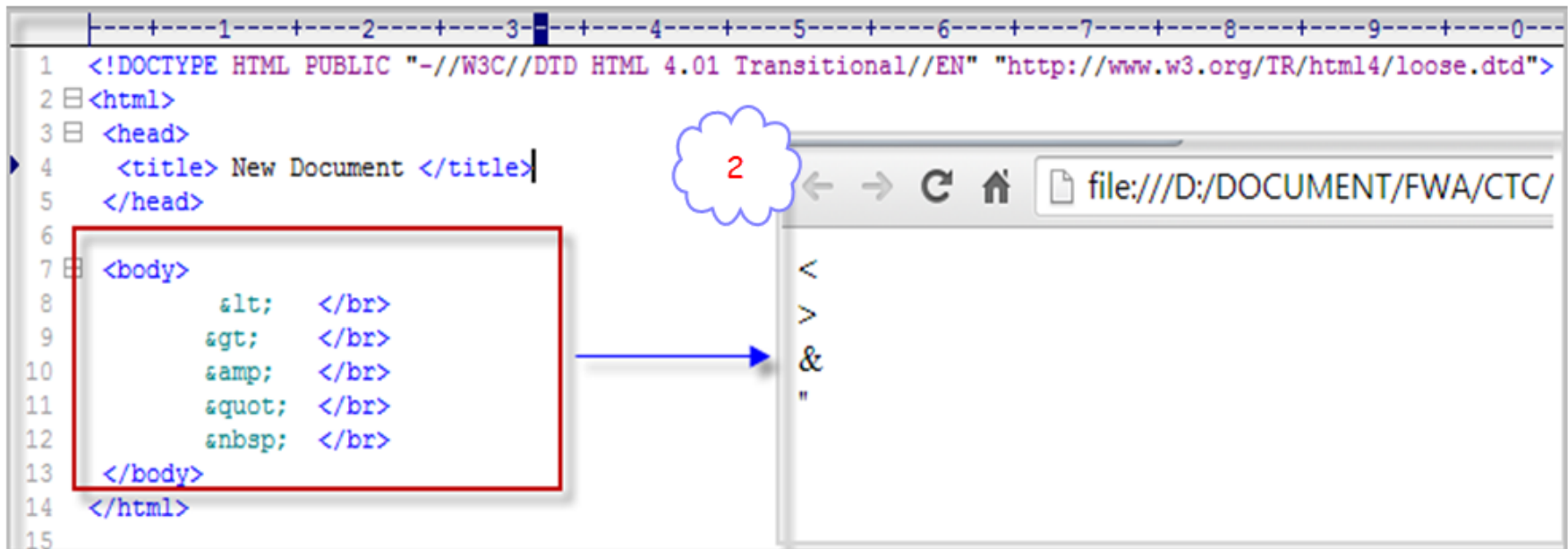
HTML code	Output
This is <code>bold</code>	This is bold
This is <code><big>big font</big></code>	This is big font
This is <code><i>italic</i></code>	This is <i>italic</i>
Was <code><s>\$50</s></code> ; now \$40	Was \$50 ; now \$40
This is <code><small>small</small></code>	This is <small>small</small>
H <code><sub>2</sub></code> O	H ₂ O
May 5 <code><sup>th</sup></code> 2005	May 5 th 2005
<code><tt>fixed-width font</tt></code>	fixed-width font
This is <code><u>underlined</u></code>	This is <u>underlined</u>

Physical Formatting Tags (2/2)

HTML code	Output
<code><cite>The Scream</cite> by Edward Munch. Painted in 1893.</code>	<i>The Scream</i> by Edward Munch. Painted in 1893.
<code><code>y = m * x + b</code></code>	<code>y = m * x + b</code>
<code>Deleted text</code>	Deleted text
<code><dfn>definition</dfn> text</code>	<i>definition</i> text
<code>This is emphasized .</code>	This is <i>emphasized</i> .
<code><ins>inserted</ins> text</code>	<u>inserted</u> text
<code><kbd>code</kbd> sample</code>	code sample
<code><samp>code</samp> sample</code>	code sample
<code>This is strong.</code>	This is strong .
<code><var>program</var> variable</code>	program variable

- Help for HTML recognizes and displays special

Character	Use
<	<
>	>
&	&
"	"
Space	



- In this exercise you will create a simple HTML page having title, heading, paragraph, em, strong, list, images tags.
- On completion, the page will look like following.

This is a demo image

FIFA World Cup 2014 News

The biggest scoreline in the history of the **FIFA World Cup** qualifiers - and indeed in the history of international football - was recorded on 11 April 2001, when Australia beat American Samoa 31-0.

This legendary match also brought global renown for *Archie Thompson*, whose 13-goal haul set a new world record in a single international match.

...iny, so inspiring has their subsequent recovery been that it
...t Goal Wins', showing across the world.

[neirao](#)

[Rio](#)

[Estádio Jornalista Mário Filho](#)

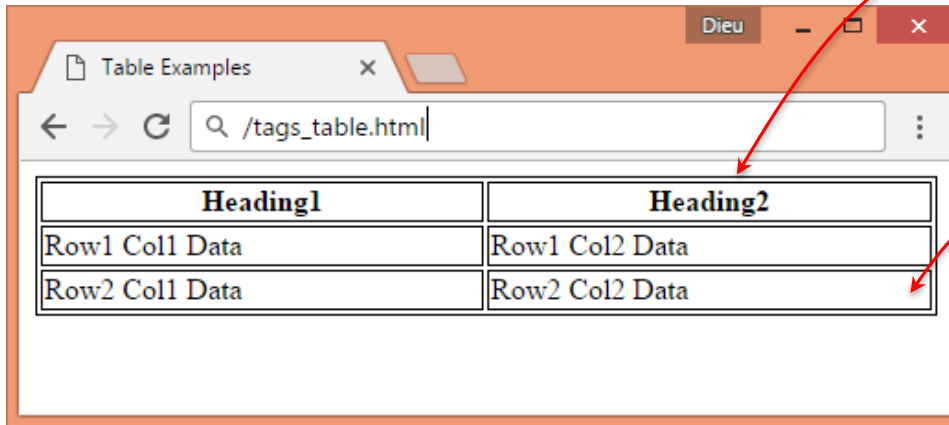
The screenshot shows a web browser window with the address bar displaying 'FAMS/addTrainer'. The page has a dark blue sidebar on the left with a 'Sale System' header and a 'Logout' link. The sidebar contains a 'Trainer' section with links for 'Trainer List' and 'Create a Trainer', a 'Teams' section with 'Team List' and 'Create a Team', a 'Trainees' section with 'Trainees', a 'Courses' section with 'Courses', and a 'Syllabus' section with 'Syllabus'. The main content area is titled 'CREATE CLASS' and contains a form with four input fields: 'Class No', 'Class Name', 'Start Date', and 'End Date'. Below the form are two buttons: 'Save' and 'Back'.

Section 3

USING TABLE

- To draw table on web page, includes tags bellow here:

- ✓ **<TABLE>** table tag
- ✓ **<TH>** table column header
- ✓ **<TR>** table row
- ✓ **<TD>** table data element



Heading1	Heading2
Row1 Col1 Data	Row1 Col2 Data
Row2 Col1 Data	Row2 Col2 Data

```
<!DOCTYPE html>
<html>
<head>
<style type="text/css">
table, th, td {
    border: 1px solid black;
}
</style>
</head>
<body>
<table style="width: 100%;">
    <tr>
        <th>Heading1</th>
        <th>Heading2</th>
    </tr>
    <tr>
        <td>Row1 Col1 Data</td>
        <td>Row1 Col2 Data</td>
    </tr>
    <tr>
        <td>Row2 Col1 Data</td>
        <td>Row2 Col2 Data</td>
    </tr>
</table>
</body>
</html>
```

<table> Element Attributes

- **align="position"**: left, center, right for table.
- **border="number"**: width in pixels of border (including any cell spacing, default 0).
- **cellspacing="number"**: spacing in pixels between cells, default about 3
- **cellpadding="number"**: space in pixels between cell border and table element, default about 1.
- **width, height="number[%]"**: width or height in pixels or percentage of page/frame width.

Code snippet

```
<b>Ubuntu Versions</b>
<table cellpadding="10px" cellspacing="10px"
      align="center"width="90%">

<tr>
  <th>Code Name</th>
  <th>Versions</th>
</tr>
<tr>
  <td>Maverick Meerkat</td>
  <td>10.10</td>
</tr>
...
</table>
```

border

cellspacing

cellpadding

Code Name	Versions
Maverick Meerkat	10.10
Lucid Lynx	10.04
Karmic Koala	9.10
Jaunty Jackalope	9.04

HTML Table - Collapsed Borders

- If you want the borders to collapse into one border, add the CSS **border-collapse** property:

Code snippet

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

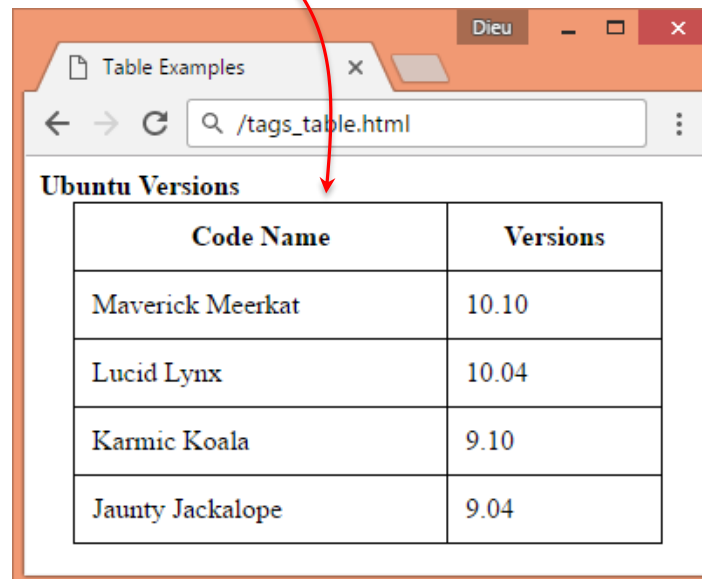


Table Examples

/tags_table.html

Ubuntu Versions

Code Name	Versions
Maverick Meerkat	10.10
Lucid Lynx	10.04
Karmic Koala	9.10
Jaunty Jackalope	9.04

<tr>, <td> Attributes

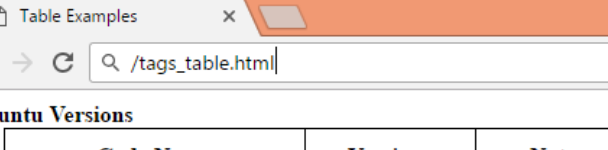
■ <TR> Attributes:

- ✓ **align**-- left, center, right
- ✓ **valign**-- top, middle, bottom
- ✓ **bgcolor**-- background color

■ <TD> Attributes:

- ✓ **colspan**: how many columns this cell occupies
- ✓ **rowspan** – how many rows this cell occupies
- ✓ **padding** -- the space between the cell content and its borders

```
<b>Ubuntu Versions</b>
<table cellpadding="10px" cellspacing="10px" align="center" width="90%">
<tr>
  <th>Code Name</th>
  <th>Versions</th>
  <th>Notes</th>
</tr>
<tr align="center" valign="top" bgcolor="#f5f5f0">
  <td>Maverick Meerkat</td>
  <td>10.10</td>
  <td rowspan="2" valign="middle">
    <span style="color: red">rowspan</span>
  </td>
</tr>
<tr>
  <td>Lucid Lynx</td>
  <td>10.04</td>
</tr>
<tr align="center" valign="middle">
  <td colspan="3">
    <span style="color: red">colspan</span>
  </td>
</tr>
</table>
```



Code Name	Versions	Notes
Maverick Meerkat	10.10	rowspan
Lucid Lynx	10.04	
colspan		

Section 4

USING FORMS

■ Uses of Forms

- ✓ **Collecting** names, addresses, telephone numbers, e-mail addresses, and other information to register users for a service or event
- ✓ **Gathering information** for the purchase of an item.
- ✓ **For example**, if we want to purchase a book over the Internet, we would be required to fill in our name, mailing address, mode of payment, and so on

■ A Sample Form:

SIGN UP

Create Your Student Account

Your student account is your portal to all things CTC: your classroom, projects, forums, career resources, and more!

First Name* Last Name*

Email Address*

Password* Confirm Password*

SIGN UP

or sign up with one of these services

FACEBOOK GOOGLE

■ The FORM element

```
<form> ... </form>
```

■ Form Attribute

- ✓ **accept:** The accept attribute specifies the types of files that the server accepts (that can be submitted through a file upload).

```
<form action="form_action.asp" accept="image/gif,image/jpeg"></form>
```

- ✓ **action:** defines the action to be performed when the form is submitted.

- ✓ **method:** The **method attribute** specifies the HTTP method (**GET** or **POST**) to be used when submitting the forms:

```
<form action="action_page.php?firstname=Mickey&lastname=Mouse"  
method="get">
```

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

- ✓ **name:** form name.

■ The **INPUT** Element

- ✓ **TYPE** (button, checkbox, color, date, datetime, datetime-local, email, file, hidden, image, month, number, password, radio, range, reset, search, submit, tel, text, time, url, week)
- ✓ **NAME**:
- ✓ **VALUE**
- ✓ **SIZE**
- ✓ **MAXLENGTH**
- ✓ **CHECKED**: Specifies that an <input> element should be pre-selected when the page loads (for type="checkbox" or type="radio").
- ✓ **SRC**: Specifies the URL of the image to use as a submit button (only for type="image").

Input –Type Attribute

- TEXT [Default]
- CHECKBOX
- RADIO
- SUBMIT
- RESET
- IMAGE
- BUTTON

- The **TextArea** Element
 - ✓ cols
 - ✓ rows
 - ✓ Size
 - ✓ type
 - ✓ Value
- The **BUTTON** Element
 - ✓ name
 - ✓ value
 - ✓ type

- The **SELECT** Element
 - ✓ **Name:** Defines a name for the drop-down list
 - ✓ **Size:** Defines the number of visible options in a drop-down list
 - ✓ **Multiple:** Specifies that multiple options can be selected at once
- The **LABEL** Element

- Allows a user to enter data that is sent to a server for processing.
- Contain: text fields, textarea, checkboxes, radio-buttons, submit buttons and more...

The diagram illustrates the mapping between HTML code and its rendered form in a web browser. The code on the left is for a form titled 'table.html' that sends data to 'Hello.jsp' using the POST method. The rendered form on the right shows the visual representation of this code.

HTML Code Snippets:

- 1:** `<FORM action = "Hello.jsp" method = "POST">`
- 2:** `First name: <input type="text" name="firstname">
Password: <input type="password" name="pwd"> </br>`
- 3:** `<input type="radio" name="sex" value="male">Male
<input type="radio" name="sex" value="female">Female</br>`
- 4:** `<input type="checkbox" name="vehicle" value="Bike">I have a bike</br><input type="checkbox" name="vehicle" value="Car">I have a car </br>`
- 5:** `<SELECT NAME="product_measuring_unit_1"><OPTION VALUE="U">Units
<OPTION VALUE="P">Pounds
<OPTION VALUE="K">Kilograms
<OPTION VALUE="M" SELECTED>Meter
</SELECT></br>`
- 6:** `<input type="submit" value="Submit">`
- 7:** `</FORM>`

Rendered Form Elements:

- 1:** The opening `<FORM>` tag.
- 2:** The 'First name:' text input field and the 'Password:' password input field.
- 3:** The 'Male' and 'Female' radio button options.
- 4:** The 'I have a bike' and 'I have a car' checkbox options.
- 5:** The 'product_measuring_unit_1' dropdown menu, currently showing 'Meter'.
- 6:** The 'Submit' button.

- In this exercise you will create a simple HTML form
- On completion, the page will look like following:

Sale System

CREATE ORDER

Order No*	<input type="text"/>
Order Name*	<input type="text"/>
Division	<input type="text" value="Division"/>
Region	<input type="text" value="Region"/>
Work Status:	<input type="text" value="Responsible"/>
Order Date*	<input type="text" value="dd/mm/yyyy"/>
Delivery Schedule Date*	<input type="text" value="dd/mm/yyyy"/>
Delivery Date	<input type="text" value="dd/mm/yyyy"/>
Order Form	<input type="text" value="J-WEB"/>
Collect Type	<input type="text" value="None"/>
Instruction	<input type="text" value="None"/>

- **Introduction to HTML**
- **HTML syntax**
- **Basic HTML Tags** (Heading, Paragraph, Preformatted, Hyperlink, Image tag, Order list, Iframe, Div)
- **Using Table**
- **Using Forms**
 - ✓ TEXT [Default]
 - ✓ CHECKBOX
 - ✓ RADIO
 - ✓ SUBMIT
 - ✓ RESET
 - ✓ IMAGE
 - ✓ BUTTON

Thank you

