



Front-end Essentials

HTML Essentials



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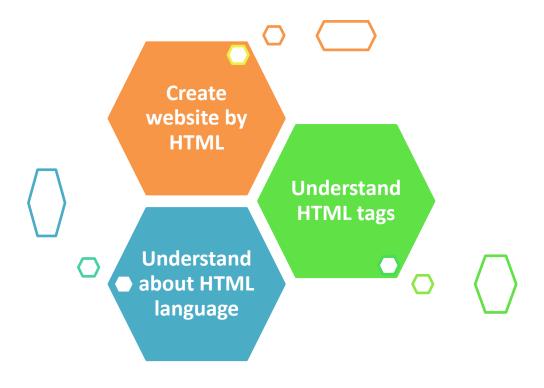


- HTML Introduction
- HTML Syntax
- HTML Tags
- Working with Table
- Working with Forms

Lesson Objectives







Lesson Objectives





- Able to create website using HTML
- Understand core concepts of HTML: syntax, tags
- Able to display data using Table
- Able handle user input using Forms Elements





Section 1

HTML Introduction

HTML Introduction





- Hyper Text Markup Language
- Markup language for describing web pages
- By using HTML, we can:
 - ✓ Control the appearance of the page
 - ✓ Publish/retrieve online documents
 - ✓ Create online forms

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 following machines *	Small Roll Rewinders DUF UF US
Material/Converting Specifications	
Additional Comments	

HTML Introduction – Standard Page Format





```
<!DOCTYPE HTML>
<html>
<head>
<title>My First HTML Page</title>
</head>
<body>
                                                                                        _ 0
     <h1>My First Heading</h1>
                                                   My First HTML Page
                                                  ← → C 🗋 file:///D:/FPT%20Software/1.Courses/Lectures/MockProject/レ☆ 🛢
     My first paragraph.
                                                  Úng dung 🦲 Luan van ThS 🦲 coltech.vnu.edu.vn 🦲 Model checking
                                                                                     » Dấu trang khác
</body>
</html>
                                                  My First Heading
                                                  My first paragraph.
```

HTML Introduction - Summary





- Hyper Text Markup Language
- Markup language for describing web pages
- Setup a standard HTLM web page





Section 2

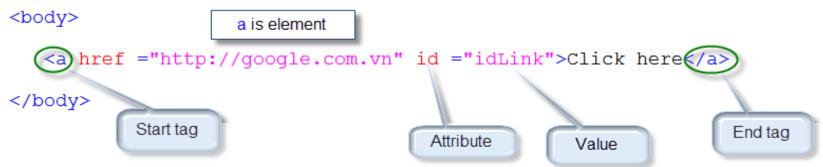
HTML Syntax

HTML Syntax





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



HTML Syntax - Element





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

Start tag *	Element content	End tag *
	This is a paragraph	
	This is a link	

p, a, br are elements

HTML Syntax - Comments





- Comment tags are used to insert comments in the HTML source code.
- Comments help reader/writer to understand the code

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

HTML Syntax - Attributes





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

```
Attributes

<input type ="text" id ="idUserName" name ="userName">Enter text...</input>

name/value
```

HTML Syntax - Common Attributes





Attribute	Value	Description
class	classname	Specifies a classname for an element
id	id	Specifies a unique id for an element
style	Style definition	Specifies an inline style for an element
title	Tooltip text	Specifies extra information about an element (displayed as a tool tip)
Name	Name	Specifies the name for an element mainly used in put

HTML Syntax - Sample 1



Dieu



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

HTML Syntax - Sample 2





```
<!DOCTYPE html>
<html>
<head>
<script type="text/javascript">
function displayResult() {
  document.getElementById("myHeader").innerHTML = "Have a
nice day!";
</script>
</head>
<body>
                                                                                                 - D - X
     <h1 id="myHeader">Hello World!</h1>
                                                                           Html Page Example ×
                                                        Html Page Example
                                                                           ← → C []/htmlpage.html
                                                                                                        ;☆ =
     <button onclick="displayResult()">Change
                                                       ← → C /htmlpage.h
     text</button>
                                                                          Have a nice day!
                                                       Hello World!
</body>
</html>
                                                                           Change text
                                                       Change text
                                                       Before
                                                                           After
```

HTML Syntax - Summary





- HTML Element consist of Element, Attribute, Value
- Each tag in HTML start with start tag and finish by close tag
- Attributes provide additional information about an element.
- Common Attributes are id, class, name, title





Section 3

HTML Tags

HTML Tags





- Heading
- Horizontal Rules
- Paragraph
 - ✓ Pre-formatted
- Hyperlink
- Image tag
- Listing
- Iframes
- Physical Formatting

HTML Tags - Heading





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

```
<h1 ...>Text h1</h1>
<h2 ...>Text h2</h2>
<h3 ...>Text h3</h3>
<h4 ...>Text h4</h4>
<h5 ...>Text h5</h5>
<h6 ...>Text h6</h6>
```

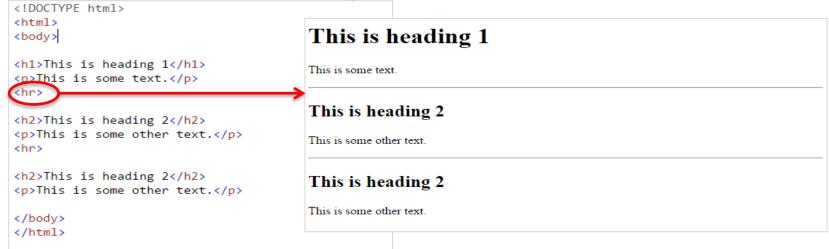
```
<HTML>
    <HEAD>
                                                      Document Headings
      <TITLE>Document Headings</TITLE>
                                                                                             ☆ 🕙
                                                     ← → C ff D/heading example.html
    </HEAD>
                                                     Samples of the six heading types:
    <BODY>
         Samples of the six heading types:
         <H1>Level-1 (H1)</H1>
                                                     Level-1 (H1)
         <H2 ALIGN="center">Level-2 (H2)</H2>
        <H3><U>Level-3 (H3)</U></H3>
         <H4 ALIGN="right">Level-4 (H4)</H4>
                                                                    Level-2 (H2)
         <H5>Level-5 (H5)</H5>
         <H6>Level-6 (H6)</H6>
                                                     Level-3 (H3)
    </BODY>
</HTML>
                                                                                        Level-4 (H4)
      ALIGN="position" with value: left (default).
                                                     Level-5 (H5)
      center or right
                                                     Level-6 (H6)
```

HTML Tags - Horizontal Rules





- The <hr> tag defines a thematic 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:



HTML Tags - Paragraph 1



Fully-specified text uses P> and P>

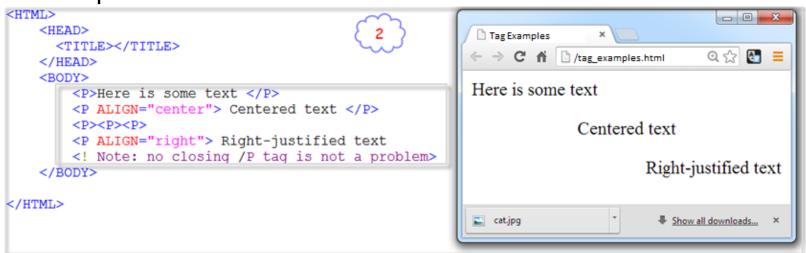
acronym syntax

But </P> is optional



Full syntax

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



HTML Tags - Paragraph 2





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

HTML Tags - Paragraph 2





- Don't Forget the End Tag
- HTML Line Breaks: the Poem Problem

```
<body>
                        not using <PRE> tag
    if (a < b) {
          a++;
          b = c * d;
    else {
          b = (b-1)/2;
</body>
                              _ 0 X
   Noname1.html
    → C 🔐 🗋 file:///C:/Users/ 😭 🧧
 if (a < b) \{ a++; b = c * d; \} else \{ a--; b = (b-1)/2; \}
```

```
<PRE>
     if (a < b) {
                     Using <PRE> tag
           a++;
          b = c * d;
    else
          b = (b-1)/2;
</PRE>
                       - - X
   Noname1.html
  ← → C 🔐 🗋 file:///C:/L 😭 💽
  else {
      b = (b-1)/2;
```

HTML Tags - Anchor





- Used to link from one page to another.
- Syntax: Content

Link to an absolute URL:

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

Link to a relative URL:

See these references concerning our fine products.

Link to a section within a URL:

Amazon provided a reference for our company.

















```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"</pre>
"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="GuestRegister.jsp">
        <img src="...\...\RES\user.png" alt="Guest Register"</pre>
             style="width:42px;height:42px;border:0;">
    </a>
                                                                                           Dieu
</body>
</html>
                                  Hyperlink Example
                                                                                                     Gχ
                                         Q /tags_a.html
```





```
<!--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>
                                                                          _ _
                      ↑ Hyperlink Example
                                                               Hyperlink Example
                               Q /a tags.html
                    THE OTRECT SCOTEME IN the mistory of the FIFT W
                                                                     C Q /a tags.html#B1
                                                                                                                        ତ୍ୟ
                    indeed in the history of international football - was
                                                              Box1
                    when Australia beat American Samoa 31-0.
                    This legendary match also brought global renown:
                                                              FIFA World Cup 2014 News
                    13-goal haul set a new world record, which stands
                    player in a single international match.
                                                              The biggest scoreline in the history of the FIFA World Cup qualifiers - and
                    And though the defeat earned American Samoa igr
                                                              indeed in the history of international football - was recorded on 11 April 2001.
                    subsequent recovery been that it is now the subject
                                                              when Australia beat American Samoa 31-0.
                    documentary, 'Next Goal Wins', showing across the
                                                              This legendary match also brought global renown for Archie Thompson, whose
                    Jump Box1
                                                              13-goal haul set a new world record, which stands to this day, for an individual
                                                              player in a single international match.
```

HTML Tags - Images





Used to display image on a web page

Syntax:

```
<img src="url" alt="some_text" style="width:width;height:height;"
align="position">
```

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;

HTML Tags - Images





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
Тор	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

HTML Tags – Images Example





```
<!DOCTYPE html>
                                                                    [1] Images tag
<html>

← → C | Q /tags_img.html

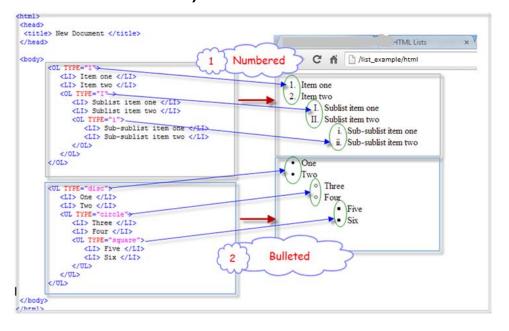
<head>
<title>Images tag</title>
</head>
                                                                  FIFA World Cup 2014 News
<body>
<h1>FIFA World Cup 2014 News</h1>
                                                                               The biggest scoreline in the history of the FIFA World Cup qualifiers -
                                                                               and indeed in the history of international football - was recorded on 11
>
                                                                               April 2001, when Australia beat American Samoa 31-0.
      <img alt="My image" src="..\..\RES\big-</pre>
lnd.jpg" style="width: 20%; height: 22%;"
align="left">
       The biggest scoreline in the history of the
                                                                    | Images tag
<strong>FIFA World Cup</strong> qualifiers -
                                                                   ← → C | Q /tags_img.html
                                                                                                                           Gχ
       and indeed in the history of international
football - was recorded on 11 April 2001,
                                                                  FIFA World Cup 2014 News
       when Australia beat American Samoa 31-0.
The biggest scoreline in the history of the FIFA World Cup qualifiers -
</body>
                                                                  and indeed in the history of international football - was recorded on 11
</html>
                                                                  April 2001, when Australia beat American Samoa 31-0.
```

HTML Tags - Listings





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



HTML Tags - Listings





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 ietms will be marked with squares
list-style-type:none	The list items will not be marked

HTML Tags - Listings





Ordered HTML Lists - The Style 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

HTML Tags - Iframes





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

Syntax:

```
<iframe src="url"</pre>
                  style="border: border; width: width; height">
                                                                                                                                                          Dieu _ _ X
        </iframe>
                                                                                                                ← → C Q /tags_iframe.html
                                                                                                                                                                G<sub>E</sub>
Example
                                                                                                               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.
   <iframe src="tags_table.html"</pre>
                                                                                                                This legendary match also brought global renown for Archie Thompson, whose 13-goal haul set a
                                                                                                                new world record, which stands to this day, for an individual player in a single international match.
                     style="border: none; width: 100%;
                                                                                                                 Company
                                                                                                                                           Contact
                                                                                                                                                          Country
                                                                                                                 Alfreds Futterkiste
                                                                                                                                           Maria Anders
                                                                                                                                                          Germany
   height: 40%">
                                                                                                                 Centro comercial Moctezuma
                                                                                                                                           Francisco Chang
                                                                                                                                                          Mexico
                                                                                                                 Ernst Handel
                                                                                                                                           Roland Mendel
                                                                                                                                                          Austria
   </iframe>
```

HTML Tags - Iframes target





- 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

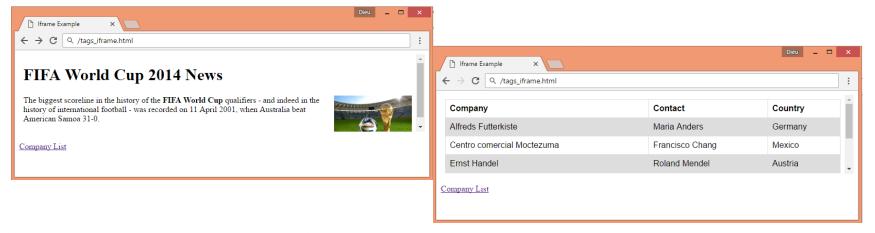
HTML Tags - Iframes target





Example:

```
<iframe src="tags_img.html"
    name="iframe_a" style="border: none; width: 100%; height: 40%">
</iframe>
<a href="tags_table.html" target="iframe_a">Company List</a>
```



HTML Tags - div





- 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.

HTML Tags - div





• Example:

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

HTML Tags - File Paths 1





- 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
 - ✓ JavaScript

HTML Tags - File Paths 2





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

HTML Tags – Formatting Tags 1





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

HTML Tags – Formatting Tags 2





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

HTML Tags – Special Characters





Help HTML to recognize and display special characters

Character	Use	1
<	<	1
>	>	
&	&	
п	"	
Space		

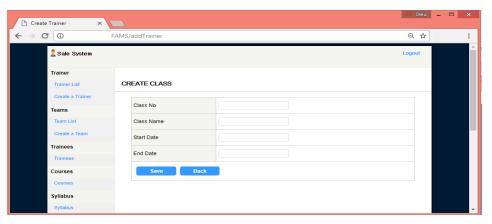
```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
2 ⊟ <html>
3 ⊟ <head>
     <title> New Document </title>
                                                  ← → C 🔐 🗎 file:///D:/DOCUMENT/FWA/CTC/
    </head>
    <body>
           alt:
                  </br>
                  </br>
                  </br>
                  </br>
           "
           anbsp:
                  </br>
    </body>
```

HTML Tags – Practical Time





- 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, which stands to this day, for an individual player in a single international match.

And though the defeat earned American Samoa ignominy, so inspiring has their subsequent recovery been that it is now the subject of an acclaimed documentary, 'Next Goal Wins', showing across the world.

Destinations

- BELO HORIZONTE, STADIUM : Estadio Mineirao
- BRASILIA, STADIUM : Estadio Nacional
- CUIABA, STADIUM: Arena Pantanal
- CURITIBA, STADIUM : Arena da Baixada
- FORTALEZA, STADIUM : Estadio Castelao
- MANAUS, STADIUM : Arena Amazonia
- NATAL, STADIUM : Estadio das Dunas
- PORTO ALEGRE, STADIUM: Estadio Beira-Rio
- RECIFE, STADIUM: Arena Pernambuco
- RIO DE JANEIRO, STADIUM: Maracanã Estádio Jornalista Mário Filho
- SALVADOR, STADIUM: Arena Fonte Nova
- SAO PAULO, STADIUM : Arena de Sao Paulo



HTML Tags – Summary 1





- Heading tags can be defined as a title or a subtitle
- Horizontal rules defines a thematic break
- Paragraph tag define a paragraph
- Anchor tag defines a hyperlink that links one page to another page
- To display image on a web use Image tag

HTML Tags – Summary 2





- To display a list use either Ordered List or Unordered List
- Use iframe to display another web page within a web page
- Use div tag to group block-elements into different division or section
- When link to external resource, make use HTML file path is correct
- HTML provide many formatting tags such as bold, big, italic, small, underlined, strong
- Display special character with &It;, >





Section 4

Working with Table

HTML Table – Syntax





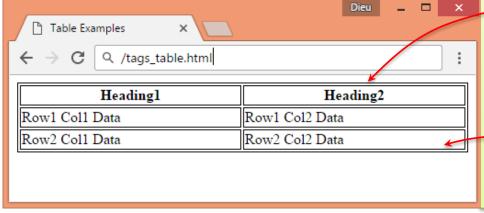
To draw table on web page, includes tags bellow here:

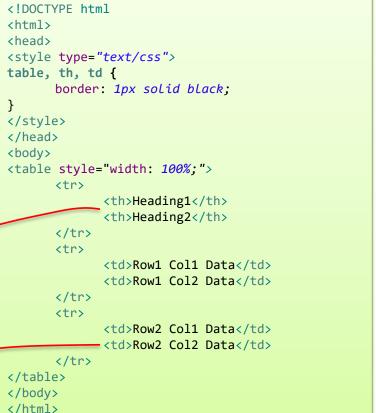
✓ <TABLE> table tag

✓ **<TH>** table column header

✓ <**TR**> table row

✓ **<TD>** table data element





HTML Table – Attributes 1





- 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.

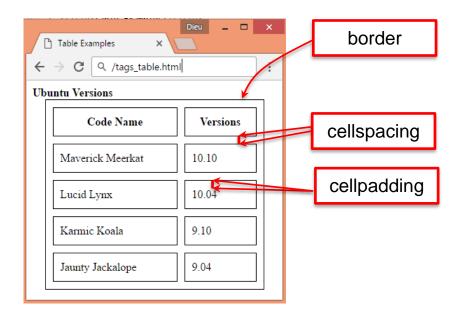
HTML Table – Attributes 2





Code snippet

```
<b>Ubuntu Versions</b>
align="center"width="90%">
>
  Code Name
  Versions
>
  Maverick Meerkat
  10.10
. . .
```



HTML Table – Collapsed Borders

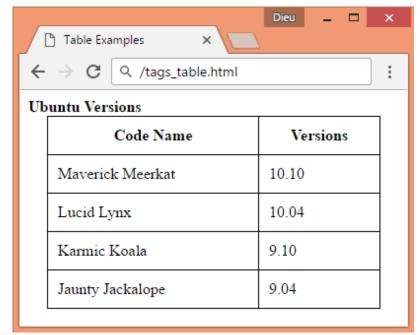




If you want the borders to collapse into one border, add the CSS border-collapse property:

```
code snippet

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



HTML Table – Table Row/Data Attributes 1





Attributes:

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

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

HTML Table – Table Row/Data Attributes 2





```
<b>Ubuntu Versions</b>
>
   Code Name
   Versions
                               Table Examples
   Notes
                                    Q /tags table.html
Mayerick Meerkat
                              Ubuntu Versions
   10.10
                                   Code Name
                                              Versions
                                                      Notes
   <span style="color: red">rowspan</span>
                                  Mayerick Meerkat
                                               10.10
   rowspan
>
                                Lucid Lynx
                                             10 04
   Lucid Lynx
   10.04
                                            colspan
<span style="color: red">colspan</span>
```

Working with Table – Summary





- To display table like (rows, columns) on web page use table
- Table tag has many attributes such as align, border, width, height
- Each row/data also have their own attributes
- Change attribute will effect the look and feel of table





Section 5

Working with Forms

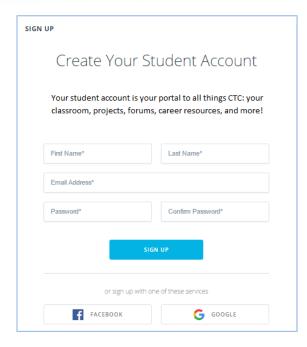
Working with Forms – Introduction





Use cases of Forms

- ✓ Collecting names, addresses, telephone numbers, email 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

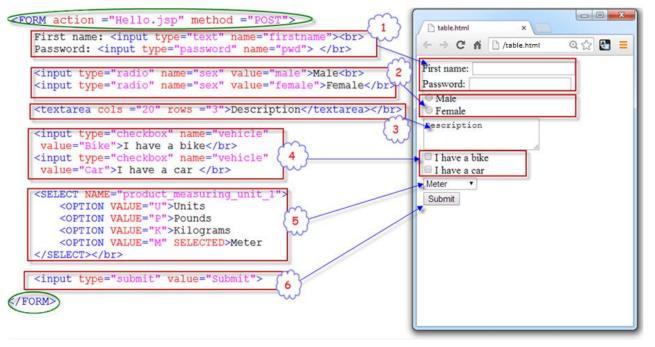


Working with Forms – HTML Form





- 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...



Working with Forms – Form Syntax





Syntax:

<form> ... </form>

Form Attribute:

- ✓ accept: specifies the types of files that the server accepts (that can be submitted through a file upload).
- ✓ action: defines the action to be performed when the form is submitted.
- ✓ method: specifies the HTTP method to be used when submitting
 the forms
- ✓ name: indicates the form name

Working with Forms – Input Attribute





The **INPUT** Element

- type (button, checkbox, <u>color</u>, <u>date</u>, <u>datetime</u>, <u>datetime-local</u>, <u>email</u>, file, hidden, image, <u>month</u>, <u>number</u>, password, radio, <u>range</u>, reset, <u>search</u>, submit, <u>tel</u>, text, <u>time</u>, <u>url</u>, <u>week</u>)
- ✓ 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").

Working with Forms – Input Type Attribute





- text [Default]
- checkbox
- radio
- submit
- reset
- image
- button

```
<form>
    <input type="text">

    <input type="radio">
    </form>
```

Working with Forms – Other Input Elements 1





The textarea Element

- √ cols
- ✓ rows
- √ Size
- √ type
- ✓ Value

The **button** Element

- ✓ name
- ✓ value
- √ type

Working with Forms – Other Input Elements 2





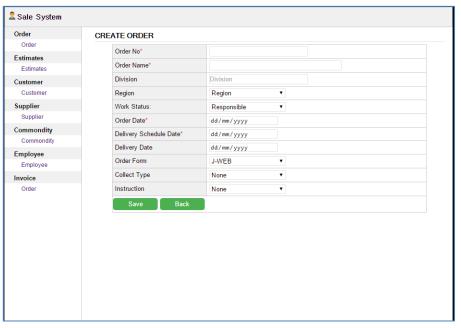
- The SELECT Element
 - ✓ Name: Defines a name for the drop-down list
 - ✓ Size: Defines the number of visible options in a dropdown list
 - ✓ Multiple: Specifies that multiple options can be selected at once
- The LABEL Element

Working with Forms – Practice





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



Working with Forms – Summary





- Form is used to collecting/gathering user's information
- Form in HTML is <form>...</form>
- Form attribute: accept, action, method, name
- Input element is used to collection 1 kind of information from user
- Other input elements: textarea, button





Thank you