



AN INTRODUCTION TO WEB PROGRAMMING

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HTML A

CONTENTS

- Before you begin
- A simple HTML document
- The structure of an HTML document
- HTML (tags, elements, and attributes)

BEFORE YOU BEGIN

- You need a **text editor**:
 - PC users:
 - Download and install Notepad++ (<http://notepad-plus-plus.org/>)
 - Mac users:
 - Download TextWrangler (<http://www.barebones.com/products/textwrangler/>)

BEFORE YOU BEGIN

- You need a few **browsers** to test out your HTML code and make sure that it works in different browsers:
 - Google Chrome: www.google.com/chrome
 - Mozilla Firefox: www.mozilla.org/firefox/new
 - MS Internet Explorer: www.microsoft.com/ie
 - Apple Safari: www.apple.com/safari
 - Opera: www.opera.com

HTML

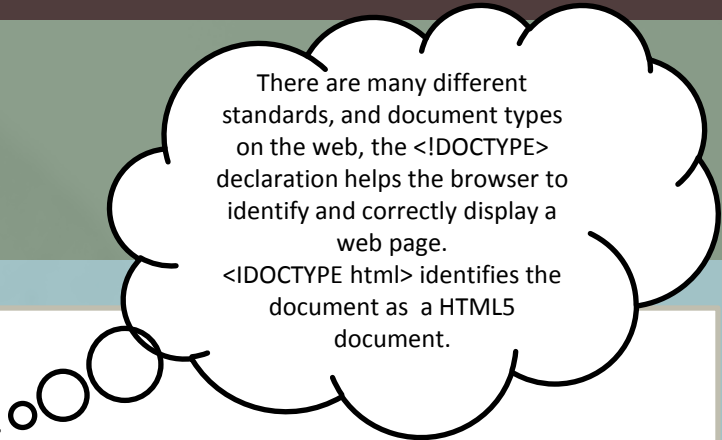
- HTML stands for **H**yper **T**ext **M**arkup **L**anguage.
- It is a language for describing creating web pages.
- HTML consists of “normal text” and markup “tags”.
- Most “tags” have a open and close tag. (but not all)
 - `<html> </html>`
 - `<body> </body>`
 - `<p> </p>`
 - `<center> </center>`

Example:

```
<!DOCTYPE html>
<html>
<body>
  <center>
    <h1>CSCI-A340 Introduction to Web Programming</h1>
    </center>

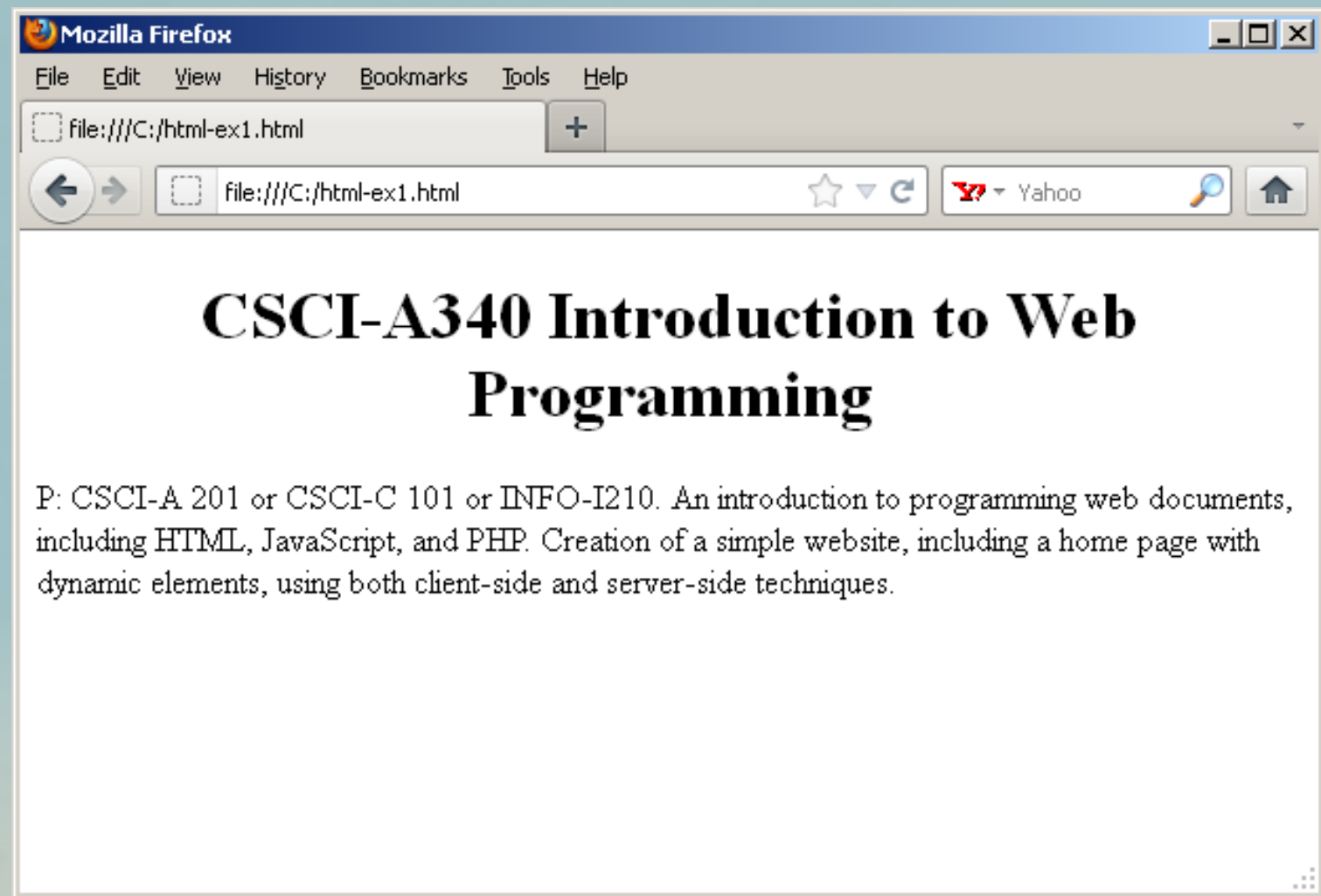
    <p>P: CSCI-A 201 or CSCI-C 101 or INFO-I210. An introduction
    to programming web documents, including HTML,
    JavaScript, and PHP. Creation of a simple website,
    including a home page with dynamic elements, using both
    client-side and server-side techniques.</p>

  </body>
</html>
```



There are many different standards, and document types on the web, the `<!DOCTYPE>` declaration helps the browser to identify and correctly display a web page. `<!DOCTYPE html>` identifies the document as a HTML5 document.

OUTPUT



THE STRUCTURE OF AN HTML DOCUMENT

- An HTML document contains the following basic elements:
- DOCTYPE tag defines the document type (in this case HTML).
- `<html> </html>` tag which describes the web page.
- `<head>.... </head>` tag describes the header information of the web page.
- `<body> </body>` is the visible (renderable) page content.
- `<h1> </h1>` is displayed as a heading.
- `<p> </p>` is displayed as a paragraph.

HTML Page Structure

Below is a visualization of an HTML page structure:

```
<html>
```

```
<body>
```

```
<h1>This a Heading</h1>
```

```
<p>This is a paragraph.</p>
```

```
<p>This is another paragraph.</p>
```

```
</body>
```

```
</html>
```

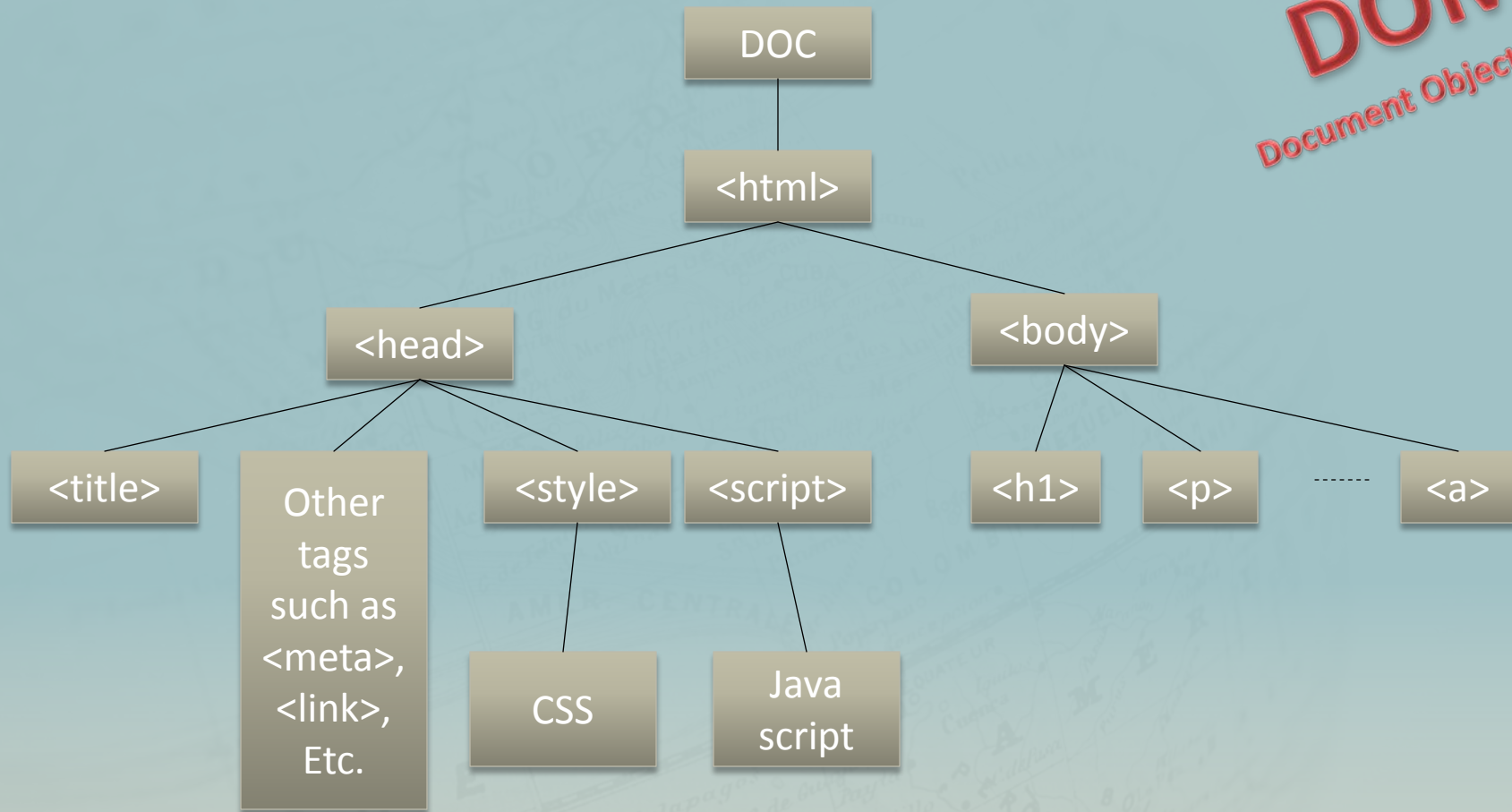
Image obtained from
http://www.w3schools.com/html/html_intro.asp

THE DOCUMENT OBJECT MODEL?

- DOM is an Application Programming Interface (API) for HTML and XML documents.
- It defines a structure of the document, and how it can be accessed.

THE STRUCTURE OF AN HTML DOCUMENT

DOM
Document Object Model





AN INTRODUCTION TO WEB PROGRAMMING

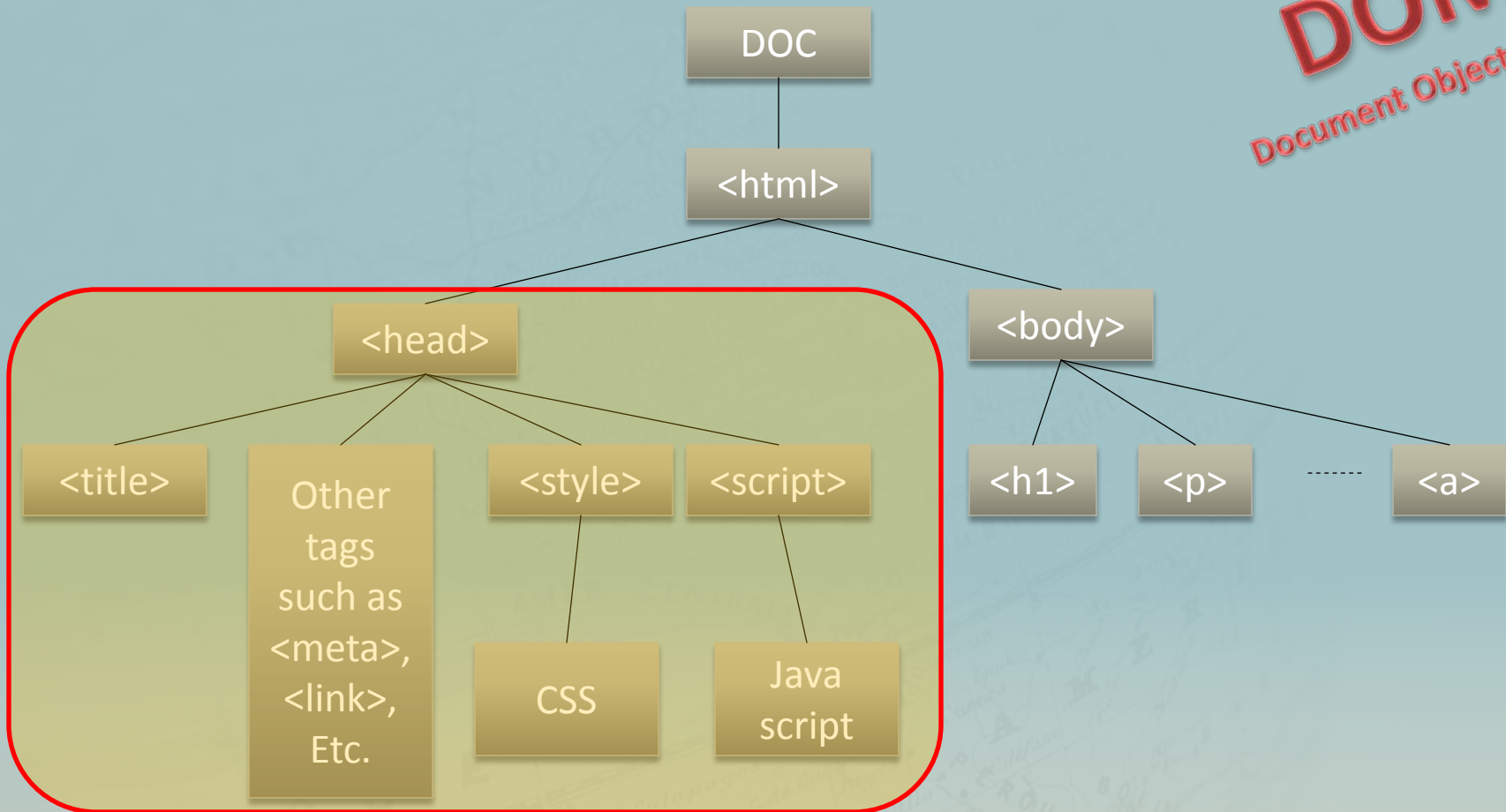
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HTML B

THE STRUCTURE OF AN HTML DOCUMENT

DOM
Document Object Model



<HEAD> TAG

- What can be inside a <Head> Tag?
 - **<title>** the title of the document **</title>**
 - **<meta>** meta data about the document
 - **<base>** the default address for all “relative” links on the page
 - **<style>** CSS style information **</style>**
 - **<link>** mostly used to connect to a CSS style sheet
 - **<script>** client-side script **</script>**

INSIDE A HEAD TAG:

<title> Tag

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

```
<head>
```

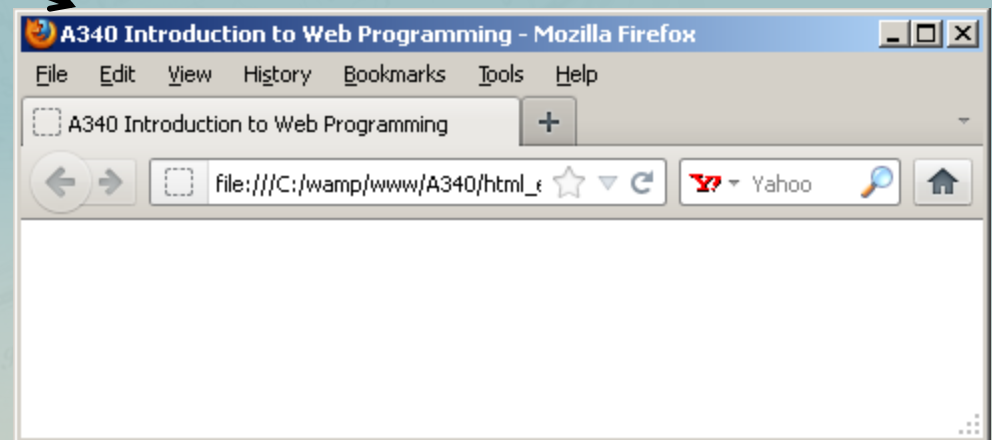
```
  <title>A340 Introduction to Web Programming</title>
```

```
</head>
```

```
<body>
```

```
</body>
```

```
</html>
```



INSIDE A HEAD TAG:

<meta> Tag

- The <meta> tag provides metadata about the HTML document.
- Metadata will not be displayed on the page, but it will be **machine readable**.
- Metadata can be used by browsers, search engines, or other web services.

• Example:

- **Default character set:**
 - `<meta charset="UTF-8">`
- **Define keywords for search engines:**
 - `<meta name="keywords" content="HTML, CSS, JavaScript, PHP, CSCI-A340, Indiana University South Bend">`
- **Define a description of your web page:**
 - `<meta name="description" content="Introduction to Web Programming">`
- **Define the author of a page:**
 - `<meta name="author" content="Hossein Hakimzadeh">`
- **Refresh document every 60 seconds:**
 - `<meta http-equiv="refresh" content="60">`

INSIDE A HEAD TAG:

<Base> Tag

- <base> the default address for all links on the page.

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<base href="https://retain.iusb.edu/retain/public/images/" >
```

```
</head>
```

```
<body>
```

```
<img src= "1996_2012_Retention.jpg" width="320" height="240">
```

```
<img src= "campus7.jpg" width="320" height="240">
```

```
<img src= "https://retain.iusb.edu/retain/public/images/campus7.jpg"  
width="320" height="240">
```

```
<a href= "campus4.jpg">show this link</a>
```

```
</body>
```

```
</html>
```

Mozilla Firefox

file:///C:/wamp/www...TML_HEAD_BASE.html

file:///C:/wan



Retention Results: 1996 to 2012

STANISLAE University - Fall 2007

Download Listing 10/12/2007 Fall 2007

| Year | Persistence to Success | Persistence to Success |
|------|------------------------|------------------------|
| 1996 | 85.1% | 85.1% |
| 1997 | 85.1% | 85.1% |
| 1998 | 85.1% | 85.1% |
| 1999 | 85.1% | 85.1% |
| 2000 | 85.1% | 85.1% |
| 2001 | 85.1% | 85.1% |
| 2002 | 85.1% | 85.1% |
| 2003 | 85.1% | 85.1% |
| 2004 | 85.1% | 85.1% |
| 2005 | 85.1% | 85.1% |
| 2006 | 85.1% | 85.1% |
| 2007 | 85.1% | 85.1% |
| 2008 | 85.1% | 85.1% |
| 2009 | 85.1% | 85.1% |
| 2010 | 85.1% | 85.1% |
| 2011 | 85.1% | 85.1% |
| 2012 | 85.1% | 85.1% |

show this link



INSIDE A HEAD TAG:

<Style> Tag

- <style> CSS style information </style>
- The <style> tag allows you to insert the style information right into the HTML document.

```
<!DOCTYPE html>
<html>
<head>
  <style>

    body
    {
      background-color:lightblue;
    }

    h1
    {
      color:red;
      text-align:center;
    }

    p
    {
      font-family:"Times New Roman";
      font-size:20px;
    }

  </style>

</head>
<body>
  <center>
    <h1>CSCI-A340 Introduction to Web Programming</h1>
  </center>

  <p>P: CSCI-A 201 or CSCI-C 101 or INFO-I210. An introduction to programming web documents, including
  HTML, JavaScript, and PHP. Creation of a simple website, including a home page with dynamic elements,
  using both client-side and server-side techniques.</p>

</body>
</html>
```

INSIDE A HEAD TAG:

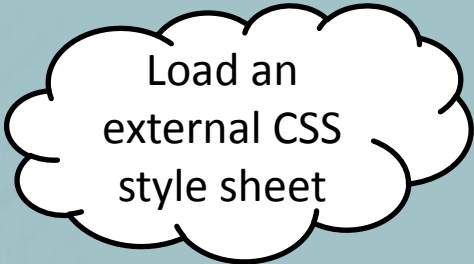
<LINK> Tag

- <link attribute="value" attribute="value" ... >

<head>

<link rel="stylesheet"
type="text/css"
href="01_MyStyle.css">

</head>



Load an
external CSS
style sheet

More Info:

<http://www.w3.org/TR/html401/present/styles.html#style-external>

INSIDE A HEAD TAG:

Example of <LINK> Tag

```
<!DOCTYPE html>
<html>
<head>
```

```
<link      rel="stylesheet"
           type="text/css"
           href="01_MyStyle.css">
```

```
</head>
<body>
<center>
<h1>CSCI-A340 Introduction to Web Programming</h1>
</center>
```

```
<p>P: CSCI-A 201 or CSCI-C 101 or INFO-I210. An introduction to
programming web documents, including HTML, JavaScript, and PHP.
Creation of a simple website, including a home page with dynamic
elements, using both client-side and server-side techniques.</p>
```

```
</body>
</html>
```

```
/* 01_MyStyle.css */
```

```
body
{
background-color:lightblue;
}
```

```
h1
{
color:red;
text-align:center;
}
```

```
p
{
font-family:"Times New Roman";
font-size:20px;
}
```


INSIDE A HEAD TAG:

<Script> Tag

- Java Script can be placed in both the HEAD as well as the BODY of the HTML file. In the HEADER, one can define a Java Script function which can be later called in the BODY of the file.

<script>

client-side script

</script>

```
<!DOCTYPE html>
<html>
<head>
<script>
function myAlert()
{
    alert("This is an alert box!");
}
</script>
</head>
<body>

<input      type="button"
            onclick="myAlert()"
            value="Display Alert" />

</body>
</html>
```



AN INTRODUCTION TO WEB PROGRAMMING

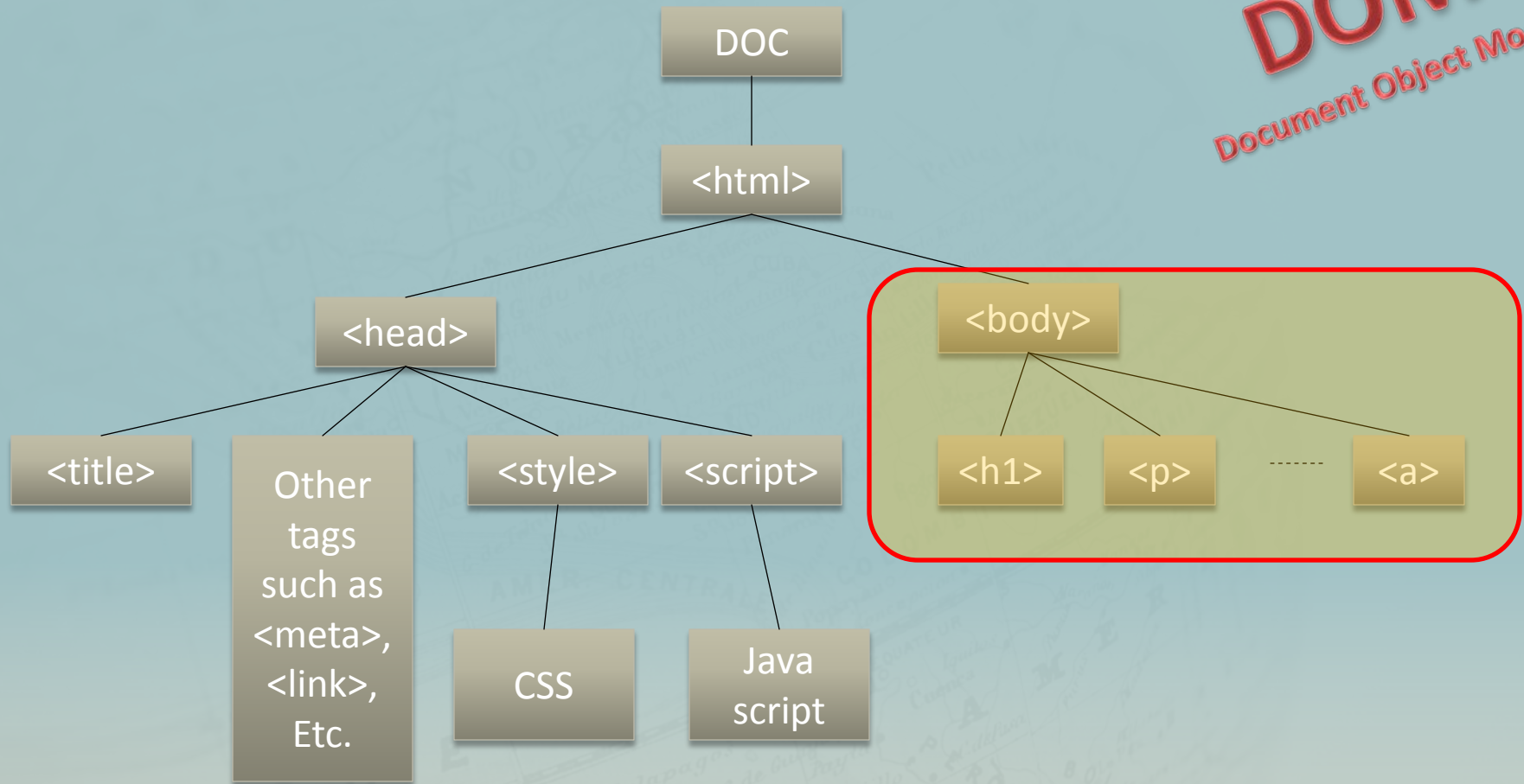
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HTML C

THE STRUCTURE OF AN HTML DOCUMENT

DOM
Document Object Model



HTML TAGS

- Documentation

Source Code:

Submit Code »

Result:

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

<!--This comment will not be displayed-->

<p>This is a regular paragraph</p>

</body>
</html>
```

This is a regular paragraph

HTML TAGS

- Heading Element

Source Code:

Submit Code »

Result:

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

<h1>This is heading 1</h1>
<h2>This is heading 2</h2>
<h3>This is heading 3</h3>
<h4>This is heading 4</h4>
<h5>This is heading 5</h5>
<h6>This is heading 6</h6>

</body>
</html>
```

This is heading 1

This is heading 2

This is heading 3

This is heading 4

This is heading 5

This is heading 6

HTML TAGS

- Paragraph Element

| Source Code: | Submit Code » | Result: |
|--|---------------|---|
| <pre><!DOCTYPE html> <html> <body> <p>This is a paragraph.</p> <p>This is a paragraph.</p> <p>This is a paragraph.</p> </body> </html></pre> | | <p>This is a paragraph.</p> <p>This is a paragraph.</p> <p>This is a paragraph.</p> |

HTML TAGS

- Link Element

| Source Code: | Submit Code » | Result: |
|---|---------------|---|
| <pre><!DOCTYPE html> <html> <body> This is a link </body> </html></pre> | | <p><u>This is a link</u></p> |

HTML TAGS

- Image Element

Source Code:

Submit Code »

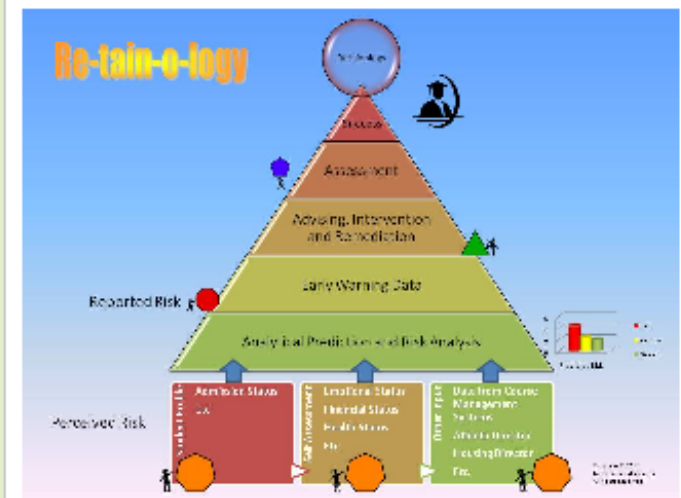
```
<!DOCTYPE html>
<html>
<body>

<img src    = "https://retain.iusb.edu/retain/public/Slide3.JPG"
    width = "320"
    height= "240">

</body>

</html>
```

Result:



HTML ELEMENTS AND ATTRIBUTES

- **Element:**

- An HTML element is everything from the start tag to the end tag.
- An HTML element starts with a **start tag**, and ends with an **end tag**.
- The **element content** is everything between the start and the end tag.

- **Attribute:**

- An HTML elements can have one or more **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"**.

```
<img src    = "https://retain.iusb.edu/retain/public/Slide3.JPG"  
     width  = "320"  
     height = "240">
```

HTML TAGS

- Horizontal rule (in HTML 4, and Thematic Break in HTML 5)

Source Code:

Submit Code »

```
<!DOCTYPE html>
<html>
<body>
<p>The hr tag defines a horizontal rule:</p>
<hr><p>This is a paragraph</p>
<hr><p>This is a paragraph</p>
<hr><p>This is a paragraph</p>
</body>
</html>
```

Result:

The hr tag defines a horizontal rule:

This is a paragraph

This is a paragraph

This is a paragraph

HTML TAGS

- Line Break (
)
- Use the
 tag to start a new line without starting a new paragraph.

Source Code:

Submit Code »

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

<p>Notice the difference between a line
break<br>another line break<br>and a
paragraph</p>This is the next paragraph

</body>
</html>
```

Result:

Notice the difference between a line break
another line break
and a paragraph

This is the next paragraph

FORMATTING TAGS

- Bold/Strong
- Italic/Emphasized
- Code
- Subscript and Superscript
- Pre (preformatted text)

Source Code:

Submit Code »

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

<p><b>This text is bold</b></p>
<p><strong>This text is strong</strong></p>
<p><i>This text is italic</i></p>
<p><em>This text is emphasized</em></p>
<p><code>This is computer output</code></p>
<p>This is<sub> subscript</sub> and
<sup>superscript</sup></p>

<pre>
This
    is
        a
            pre-formatted
                text
</pre>

</body>
</html>
```

Result:

This text is bold

This text is strong

This text is italic

This text is emphasized

This is computer output

This is subscript and superscript

```
This
    is
        a
            pre-formatted
                text
```

TABLE TAG

- Tables start with a `<table>` tag.
- Each row starts with a `<tr>` tag.
- Each cell (table data) starts with a `<td>` tag.

Source Code:

Submit Code »

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

<h4>One column:</h4>
<table border="1">
<tr>
  <td>100</td>
</tr>
</table>

<h4>One row and three columns:</h4>
<table border="1">
<tr>
  <td>100</td>
  <td>200</td>
  <td>300</td>
</tr>
</table>

<h4>Two rows and three columns:</h4>
<table border="1">
<tr>
  <td>100</td>
  <td>200</td>
  <td>300</td>
</tr>
<tr>
  <td>400</td>
  <td>500</td>
  <td>600</td>
</tr>
</table>

</body>
</html>
```

Result:

Each table starts with a table tag. Each table row starts with a tr tag. Each table data starts with a td tag.

One column:

| |
|-----|
| 100 |
|-----|

One row and three columns:

| | | |
|-----|-----|-----|
| 100 | 200 | 300 |
|-----|-----|-----|

Two rows and three columns:

| | | |
|-----|-----|-----|
| 100 | 200 | 300 |
| 400 | 500 | 600 |

TABLE HEADERS

- Header information in a table are defined with the `<th>` tag.
- All major browsers display the text in the `<th>` element as bold and centered.

Source Code:

Submit Code »

Result:

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

<h4>Table headers:</h4>
<table border="1">
<tr>
  <th>Name</th>
  <th>Telephone</th>
  <th>Telephone</th>
</tr>
<tr>
  <td>Bill Gates</td>
  <td>555 77 854</td>
  <td>555 77 855</td>
</tr>
</table>

<h4>Vertical headers:</h4>
<table border="1">
<tr>
  <th>First Name:</th>
  <td>Bill Gates</td>
</tr>
<tr>
  <th>Telephone:</th>
  <td>555 77 854</td>
</tr>
<tr>
  <th>Telephone:</th>
  <td>555 77 855</td>
</tr>
</table>

</body>
</html>
```

Table headers:

| Name | Telephone | Telephone |
|------------|------------|------------|
| Bill Gates | 555 77 854 | 555 77 855 |

Vertical headers:

| First Name: | Bill Gates |
|-------------|------------|
| Telephone: | 555 77 854 |
| Telephone: | 555 77 855 |



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HTML D

LISTS

- Unordered Lists:

- ``
 - `Coffee`
 - `Milk`
- ``

- Ordered Lists:

- ``
 - `Coffee`
 - `Milk`
- ``

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

Unordered list
<ul>
<li>Coffee</li>
<li>Milk</li>
</ul>

Ordered list
<ol>
<li>Coffee</li>
<li>Milk</li>
</ol>

</body>
</html>
```

Unordered list

- Coffee
- Milk

Ordered list

1. Coffee
2. Milk

BLOCK VS. IN-LINE ELEMENTS

- **Block Elements:**

- A block-level element is an element that creates large blocks of content like `<p>paragraphs </p>` or `<div>divisions </div>`.
- Block elements start new lines of text when you use them, and can contain other blocks as well as inline elements and text or data.

- **Inline Elements:**

- An inline element is an element that define text or data in the document like `BOLD`
- Inline elements do not start new lines when you use them, and they generally only contain other inline tags and text or data, or they include nothing at all, like the `
` tag.
- Finally, inline elements may not be displayed at all, they simply effect the rest of the document. Such as `<style>`, `<meta>`, `<head>`.

DIV TAGS

<div> Element

- The HTML **<div>** element is a block-level element that can be used as a container for grouping other HTML elements.
- The **<div>** element has no special meaning. Except that, because it is a block level element, the browser will display a line break before and after it.
- When used together with CSS, the **<div>** element can be used to set style attributes to large blocks of content.

DIV TAGS

Example 1:

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

<p>This is some text.</p>

<div style="color:#0000FF">
  <h3>This is a heading in a div element</h3>
  <p>This is some text in a div element.</p>
</div>

<div style="color:#00FF00; text-align:center">
  <h3>This is a heading in a div element</h3>
  <p>This is some text in a div element.</p>
</div>

<p>This is some text.</p>
</body>
</html>
```

This is some text.

This is a heading in a div element

This is some text in a div element.

This is a heading in a div element

This is some text in a div element.

This is some text.

DIV TAGS

<div> Element:

- Another common use of the **<div>** element, is for document layout. It replaces the "old way" of defining page-layout using tables. Using tables is not the correct use of the **<table>** element. The purpose of the **<table>** element is to display tabular data.
 - Multiple columns are created by using **<div>** or **<table>** elements. (see next page)
 - CSS can be used to position elements, or to create backgrounds or colorful look for the pages.

WEB PAGE LAYOUT

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

```
<div id="container" style="width:500px">
```

```
<div id="header"
```

```
style="background-color:#FFA500;
text-align:center;
height:50px;
width:500px;">
```

```
<h1>Title of the page </h1>
```

```
</div>
```

```
<div id="leftnav";
```

```
style="background-color:#FFD700;
height:200px;
width:100px;
float:left;">
```

```
<b>LeftNav</b><br>
```

```
HTML<br>
```

```
CSS<br>
```

```
JavaScript<br>
```

```
PHP
```

```
</div>
```

```
<div id="content";
```

```
style="background-color:#EEEEEE;
height:200px;
width:400px;
float:left;">
```

```
Content goes here .....
```

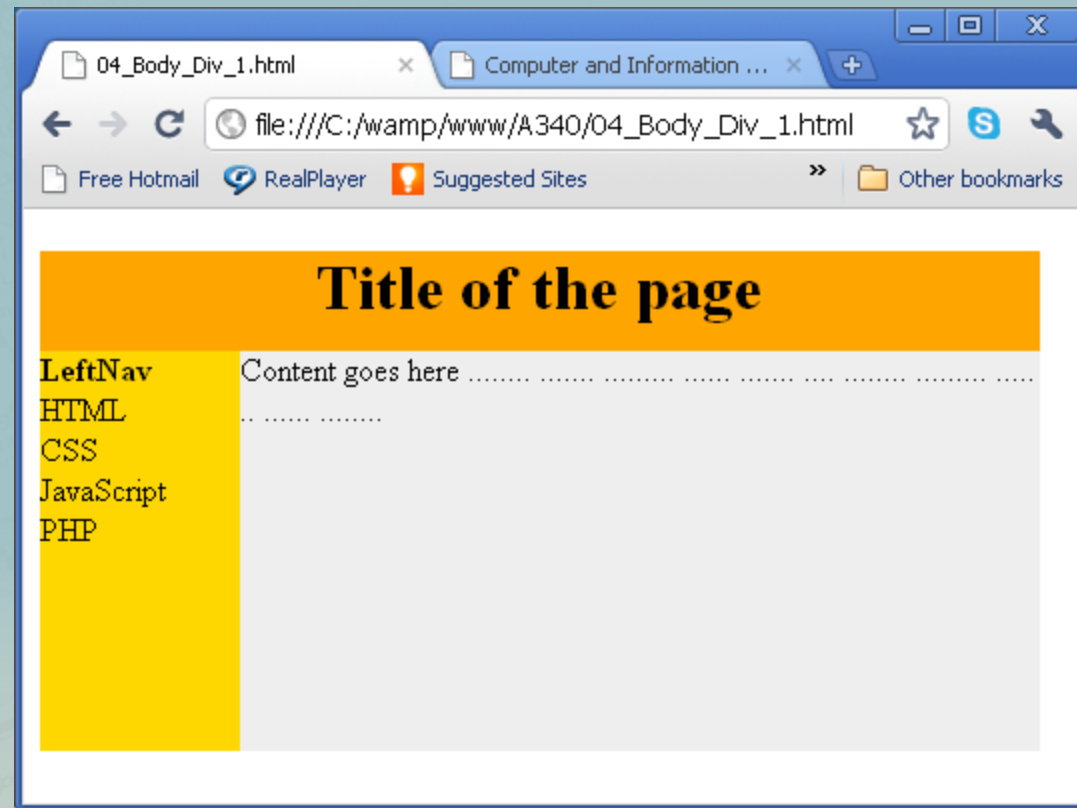
```
</div>
```

```
</div>
```

```
</body>
```

```
</html>
```

See what happens if
you remove the
outside container!



PAGE LAYOUT

Adding another <div> tag for the right nav.

```
<div      id="rightnav";  
          style="background-color:#33D700;  
          height:200px;  
          width:100px;  
          float:right;">
```

```
<b>RightNav</b><br>  
News<br>  
FAQ<br>
```

```
</div>
```



ADDING MORE CONTENT...

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

<div id="container" style="width:500px">

<div id="header"
    style="background-color:#FFA500;
    text-align:center;
    height:50px;
    width:500px;">

<h1 style="margin-bottom:0;">Title of the page
    <img src =
    "https://retain.iusb.edu/retain/public/Slide3.JPG"
    width = "60" height="50" align="left" >
    <img src =
    "https://retain.iusb.edu/retain/public/Slide3.JPG"
    width = "60" height="50" align="right" >

</h1>
</div>

<div id="topnav";
    style="background-color:#AAD700;
    height:30px;
    width:500px;
    float:left;
    text-align:center">

<b>TopNav:</b>
Choice 1
Choice 2

</div>

<div id="leftnav";
    style="background-color:#FFD700;
    height:200px;
    width:100px;
    float:left;">

<b>LeftNav</b><br>
HTML<br>
CSS<br>
JavaScript<br>
PHP

</div>
```

```
<div id="rightnav";
    style="background-color:#FFD700;
    height:200px;
    width:100px;
    float:right;">

<b>RightNav</b><br>
News<br>
FAQ<br>

</div>

<div id="content";
    style="background-color:#EEEEEE;
    height:200px;
    width:300px;
    float:left;">

Content goes here .....

.....

<video width="160" height="120" controls>

<source src="FransLanting_2005.mp4" type="video/mp4">
Your browser does not support the video tag.

</video>
</div>

<div id="footer";
    style="background-color:#FFA500;
    clear:both;
    text-align:center;">

<b>Footer</b>

</div>

</div>

</body>
</html>
```





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HTML E

HTML FORMS

- HTML forms are used for **collecting data** (input) and interact with the user.
- Such data is then typically **passed to the server for processing or storage** in the database.



HTML FORMS

- A simple HTML form:

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<form action="processform.php">
```

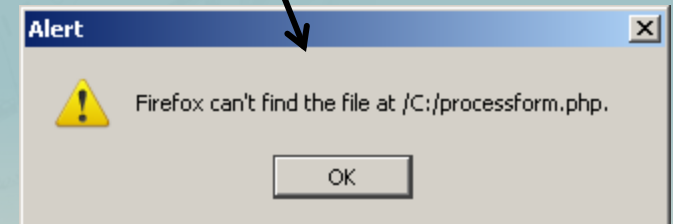
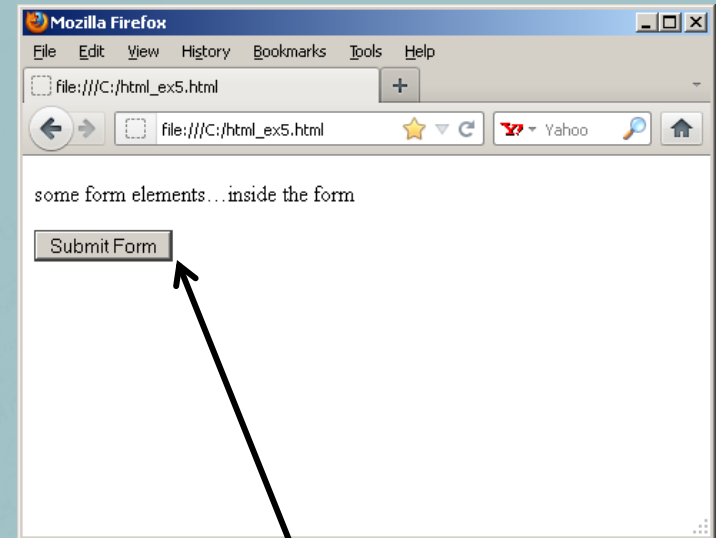
```
  <p>some form elements...inside the  
  form</p>
```

```
    <button> Submit Form </button>
```

```
</form>
```

```
</body>
```

```
</html>
```



HTML FORMS

- Additional Form Attributes:

```
<form    action  ="processform.php"  
        method ="get/post"  
        target  = "_self/_blank/etc..  
        etc...  
>
```

```
<p>some form elements...inside the  
form</p>
```

```
<button> Submit Form </button>
```

```
</form>
```

Who to call:

when the
form is
submitted.

**What method to use to submit the
data:**

The form-data can be sent as URL
variables (with method="get") or as
HTTP post transaction (with
method="post").

Where to display the response:

_self = current frame (default)
_blank = a new empty window
or tab.

USE OF POST METHOD

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

<form

action = "processform.php"

method = "post"

target = "_blank">

```
<Label> Textbox: </lable>
```

```
<ul>
```

```
<input
```

```
type      ='text'
```

```
name      ='TextBoxName'
```

```
size      ='5'
```

```
maxlength ='10'
```

```
value     ='123' >
```

```
</ul>
```

```
<button> Submit Form </button>
```

</form>

```
</body>
```

```
</html>
```

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

<p> Simple Processing of form data!</p>

```
</body>
```

```
</html>
```

```
<?php
```

```
echo ("Display Information Obtained from ");
```

```
if (isset($_GET['TextBoxName']))
```

```
    echo ("Built-in Get Array: " . $_GET['TextBoxName'] );
```

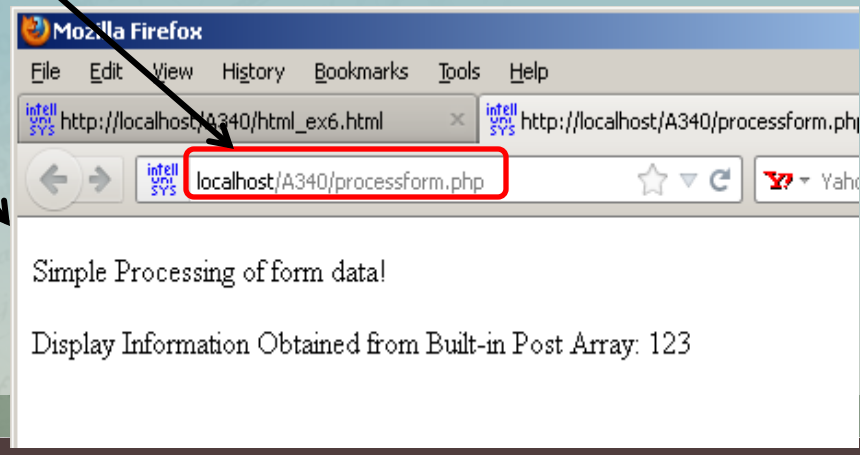
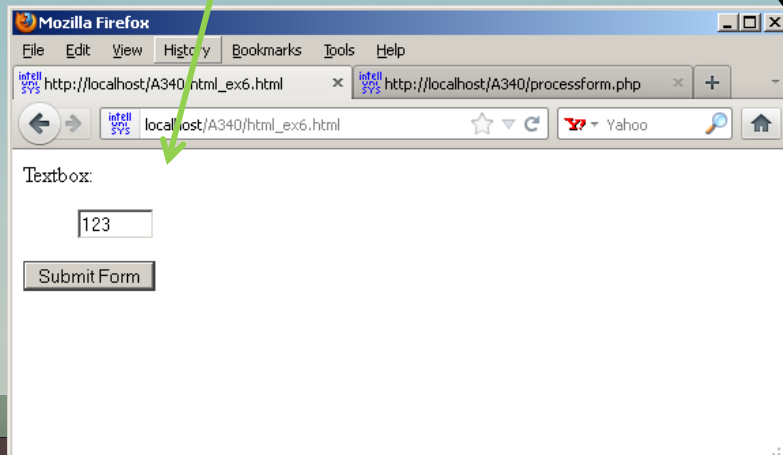
```
else if (isset($_POST['TextBoxName']))
```

```
    echo ("Built-in Post Array: " . $_POST['TextBoxName'] );
```

```
else
```

```
    echo("nothing sent...");
```

```
?>
```



USE OF GET METHOD

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

<form

action = "processform.php"

method = "get"

target = "_blank">

<label> Textbox: </label>

<input

type = 'text'

name = 'TextBoxName'

size = '5'

maxlength = '10'

value = '123' >

<button> Submit Form </button>

</form>

</body>

</html>

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<p> Simple Processing of form data!</p>
```

```
</body>
```

```
</html>
```

```
<?php
```

```
echo ("Display Information Obtained from ");
```

```
if (isset($_GET['TextBoxName']))
```

```
    echo ("Built-in Get Array: " . $_GET['TextBoxName'] );
```

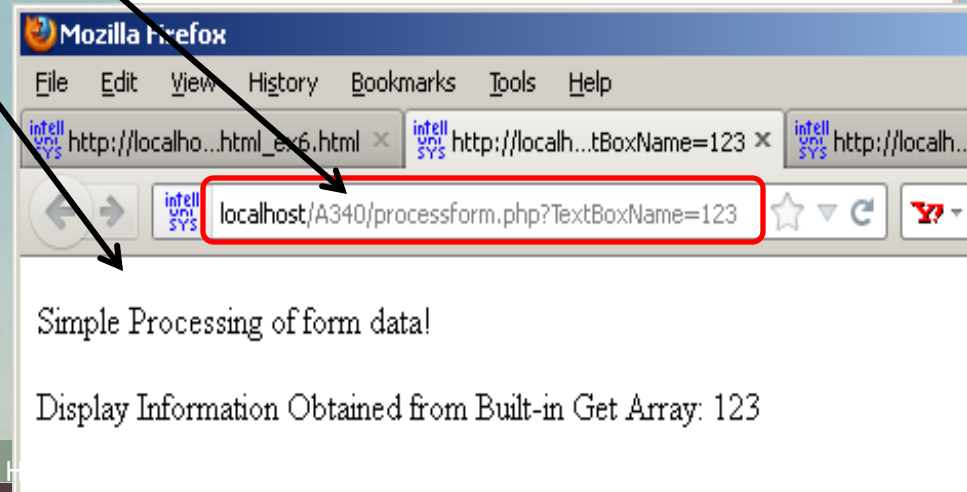
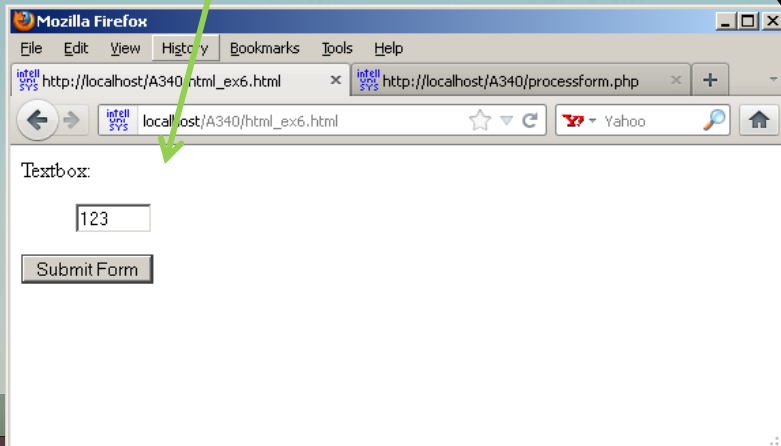
```
else if (isset($_POST['TextBoxName']))
```

```
    echo ("Built-in Post Array: " . $_POST['TextBoxName'] );
```

```
else
```

```
    echo("nothing sent...");
```

```
?>
```



HTML FORM ELEMENTS

- A typical form can consist of:

- Textboxes
- TextAreas
- RadioButtons
- CheckBoxes
- ComboBoxes
- Listboxes

IU-RETAIN - Student Self Assessment
Indiana University South Bend
Approximate time needed: 8 Minutes

We invite you to take part in a self-assessment survey. By answering the following questions you will help us better understand some of the reasons why you might be having academic difficulties in college, and allow us to develop effective strategies to try to help you and other students at Indiana University South Bend.

Why did you choose Indiana University? (Mark all that apply)

- ☐ Reputation of the university
- ☐ Reputation of the degree program (e.g., Nursing, Chemistry, Business, Computer Science, etc.)
- ☐ IUSB offers the degree program I want
- ☐ Received a scholarship or financial aid from IU
- ☐ Location is close to home
- ☐ Size of the campus, or classes
- ☐ Cost
- ☐ A friend recommended it
- ☐ My parents recommended it
- ☐ My high school counselor recommended it

Was Indiana University South Bend your first choice?

- ☐ Yes
- ☐ No

How many other colleges besides IUSB did you apply to?

Do you plan to transfer to another school?

- ☐ No, I plan to finish my degree here at IU South Bend
- ☐ Yes, I plan to transfer to another campus of IU
- ☐ Yes, I plan to transfer to a non-IU campus

If you plan to transfer/leave prior to completing your degree, WHERE do you plan to go?

TEXTBOX

- A **TEXTBOX** can be created using an `<input>` element.
- `<input>` elements are typically used within a `<form>` element to obtain input from users.
- An input field can vary in many ways, depending on the `type` attribute.

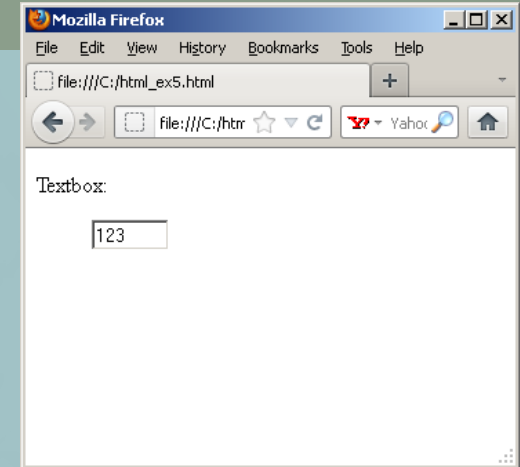
Example:

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

```
<p> Textbox: </p>
<ul>
```

```
<input
  type    ='text'
  name    ='TextBoxName'
  size    ='5'
  maxlength='10'
  value   ='xxx'
```

```
>
</ul>
</body>
</html>
```



THE **TYPE** OF INPUT

The TYPE attribute in the input element can be:

- Text
- Textarea
- Email
- url
- Password
- Checkbox
- Radio
- number
- Range
- Button
- Reset
- Submit

Other:

- Color
- Date
- Datetime
- datetime-local
- File
- Hidden
- Image
- month
- Search
- Tel
- time
- week

HTML FORM

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<form action="processform.php">
```

```
  Last name: <input type="text" name="lname"><br>
```

```
  Email: <input type="text" name="email"><br>
```

```
  Your Homepage: <input type="url" name="homepage"><br>
```

```
  Password: <input type="password" name="pwd" maxlength="8"><br>
```

```
<hr>
```

```
<label> Your Skills: </label> <br>
```

```
<input type="checkbox" name="skills" value="1"> Critical Thinking<br>
```

```
<input type="checkbox" name="skills" value="2"> Problem Solving <br>
```

```
<input type="checkbox" name="skills" value="3" CHECKED> Communication <br>
```

```
<hr>
```

```
<label> Your Gender: </label> <br>
```

```
<input type="radio" name="gender" value="male"> Male<br>
```

```
<input type="radio" name="gender" value="female"> Female<br>
```

```
<hr>
```

```
Numeric Value (between 0 and 5):
```

```
<input type="number" name="numbervalue" min="0" max="5">
```

```
<hr>
```

```
Numeric Range (between 1 and 10):
```

```
<input type="range" name="points" min="1" max="10" step="1" value="5">
```

```
<hr>
```

```
<input type="submit">
```

```
<input type="reset">
```

```
</form>
```

```
</body>
```

```
</html>
```

firefox

Google
Chrome

Microsoft
IE

A screenshot of the Mozilla Firefox browser window. The address bar shows 'localhost/A340/html_'. The form contains the following elements: 'Last name:' text input, 'Email:' text input, 'Your Homepage:' text input, 'Password:' text input, 'Your Skills:' section with three checkboxes ('Critical Thinking', 'Problem Solving', 'Communication'), 'Your Gender:' section with two radio buttons ('Male', 'Female'), 'Numeric Value (between 0 and 5):' number input, and 'Numeric Range (between 1 and 10):' range input (highlighted with a red box). At the bottom are 'Submit Query' and 'Reset' buttons.

A screenshot of the Microsoft Internet Explorer browser window. The address bar shows 'http://localhost/A340/html_'. The form is identical to the one in Firefox. The 'Numeric Range (between 1 and 10):' range input is highlighted with a red box, showing a slider and the value '5'. The 'Submit Query' and 'Reset' buttons are at the bottom.



AN INTRODUCTION TO WEB PROGRAMMING

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Indiana University
South Bend, IN



HTML F

FIELDSET

- The `<fieldset>` tag is used to group related elements in a form.
- The `<fieldset>` tag draws a box around the related elements.

```
<form action="processform.php">
```

```
<fieldset>
```

```
Last name: <input type="text" name="lname"><br>
```

```
Email: <input type="text" name="email"><br>
```

```
Your Homepage: <input type="url" name="homepage"><br>
```

```
Password: <input type="password" name="pwd" maxlength="8"><br>
```

```
</fieldset>
```

```
<hr>
```

```
<fieldset>
```

```
<label> Your Skills: </label> <br>
```

```
<input type="checkbox" name="skills" value="1"> Critical Thinking<br>
```

```
<input type="checkbox" name="skills" value="2"> Problem Solving <br>
```

```
<input type="checkbox" name="skills" value="3"> Communication <br>
```

```
</fieldset>
```

```
<hr>
```

```
<input type="submit">
```

```
<input type="reset">
```

```
</form>
```


FIELDSET

```
C:\wamp\www\A340\05_Body_Form5.html - Notepad++
File Edit Search View Encoding Language Settings Macro Run Plugins Window ?
05_Body_Form5.html
1 <!DOCTYPE html>
2 <html>
3 <body>
4
5 <form action="processform.php">
6
7 <fieldset>
8   Last name: <input type="text" name="lname"><br>
9   Email: <input type="text" name="email"><br>
10  Your Homepage: <input type="url" name="homepage"><br>
11  Password: <input type="password" name="pwd" maxlength="8"><br>
12 </fieldset>
13
14 <br>
15 <fieldset>
16 <label> Your Skills: </label> <br>
17   <input type="checkbox" name="skills" value="1"> Critical Thinking<br>
18   <input type="checkbox" name="skills" value="2"> Problem Solving <br>
19   <input type="checkbox" name="skills" value="3"> Communication <br>
20 </fieldset>
21 <hr>
22   <input type="submit">
23   <input type="reset">
24 </form>
25
26
27 </body>
28 </html>
```

Mozilla Firefox

http://localhost/A340/05_Body_Form5.html

localhost/A340/05_Body_Form5.html

intell
sys

Last name:

Email:

Your Homepage:

Password:

Your Skills:

☐ Critical Thinking

☐ Problem Solving

☐ Communication

Submit Query Reset



LEGEND TAG

- The `<legend>` tag defines a caption for the `<fieldset>` element.

```
C:\wamp\www\A340\05_Body_Form6.html - Notepad++
File Edit Search View Encoding Language Settings Macro Run Plugins Window ?
05_Body_Form6.html
1 <!DOCTYPE html>
2 <!-- Use of Legend
3 The <legend> tag defines a caption for the <fieldset> element.
4 -->
5 <html>
6 <body>
7 <p>The < legend > tag defines a caption for the < fieldset > element. </p>
8
9 <form action="processform.php">
10
11 <fieldset>
12 <legend><b>Personal Information: </b></legend>
13 <ul>
14 Last name: <input type="text" name="lname"><br>
15 Email: <input type="text" name="email"><br>
16 Your Homepage: <input type="url" name="homepage"><br>
17 Password: <input type="password" name="pwd" maxlength="8"><br>
18 </ul>
19 </fieldset>
20
21 <fieldset>
22 <legend><b>Your Skills: </b></legend>
23 <input type="checkbox" name="skills" value="1"> Critical Thinking<br>
24 <input type="checkbox" name="skills" value="2"> Problem Solving<br>
25 <input type="checkbox" name="skills" value="3"> Communication<br>
26 </fieldset>
27
28 <hr>
29 <input type="submit">
30 <input type="reset">
31 </form>
32
33 </body>
34 </html>
```

Oops! This li... x HTML address... x Hakimzadeh,...

localhost/A340/05_Body_Form6.html

Free Hotmail RealPlayer Suggested Sites Other bookmarks

The < legend > tag defines a caption for the < fieldset > element.

Personal Information:

Last name:

Email:

Your Homepage:

Password:

Your Skills:

☐ Critical Thinking

☐ Problem Solving

☐ Communication

Submit Reset



AN INTRODUCTION TO WEB PROGRAMMING

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Indiana University
South Bend, IN



HTML G

FRAME / FRAMESET

- The <frame> and <frameset> tags are **not supported in HTML5**.
- The <frame> tag defines a window (frame) within a <frameset>.
- Each <frame> in a <frameset> can have different attributes, such as border, scrolling, the ability to resize, etc.

| Source Code: | Submit Code » | | | Result: |
|---|----------------|----------------|----------------|---------|
| <pre><!DOCTYPE html> <html> <frameset cols="25%,*,25%"> <frame src="frame_a.htm"> <frame src="frame_b.htm"> <frame src="frame_c.htm"> </frameset> </html></pre> | Frame A | Frame B | Frame C | |

IFRAME

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

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<iframe
```

```
  src="05_Body_Form4.html"
```

```
  width="500"
```

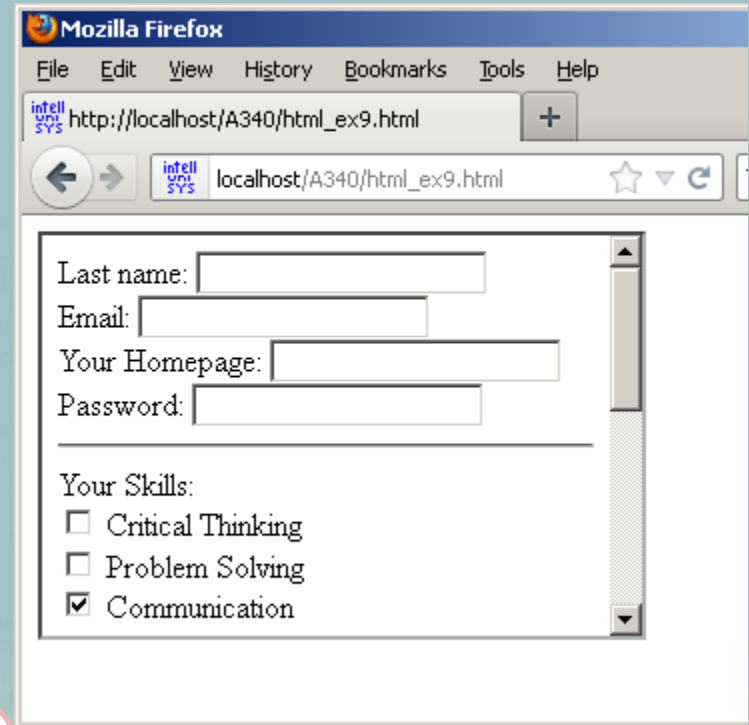
```
  height="200">
```

```
</iframe>
```

```
</body>
```

```
</html>
```

Additional attributes such as frameborder, align, scrolling, etc. can be added to the iframe.



DISPLAYING VIDEOS (USING VIDEO TAG)

- The standards at this point are still a little loose.
(Below only seems to work in Chrome)

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<video width="320" height="240" controls autoplay>
```

```
<source
```

```
  src="../../../Development/videos/FransLanting_2005.mp4"
```

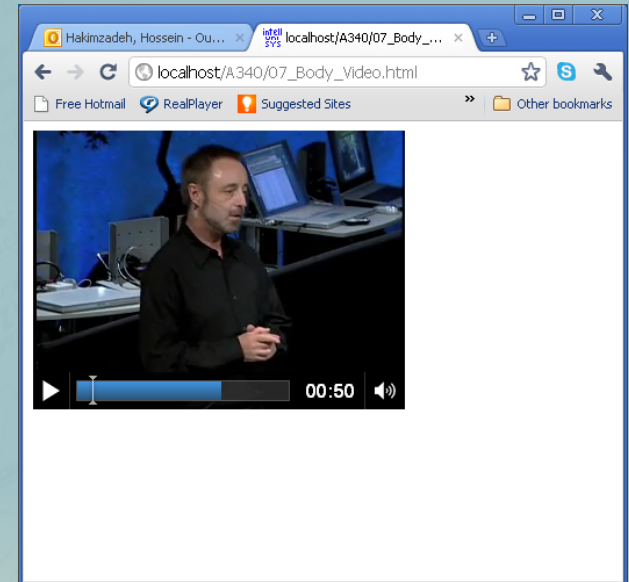
```
  type="video/mp4">
```

Your browser does not support the video tag.

```
</video>
```

```
</body>
```

```
</html>
```



DISPLAYING VIDEOS (USING EMBED)

- The <embed> tag defines a container for an external application or interactive content (a plug-in).

```
<!DOCTYPE html>
```

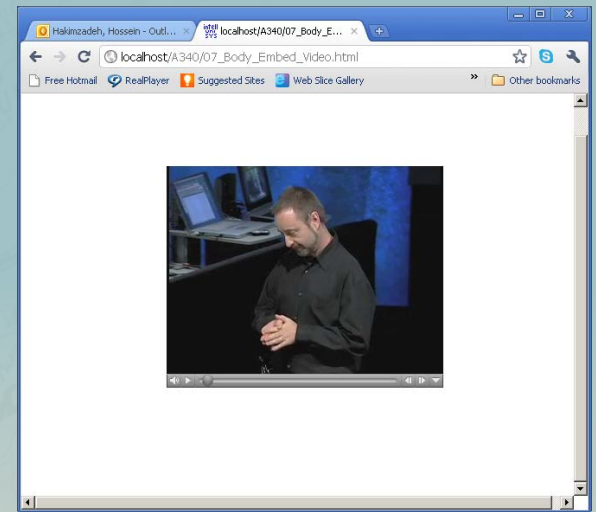
```
<html>
```

```
<body>
```

```
<embed src="../Development/videos/FransLanting_2005.mp4"  
width="640"  
height="480"  
autostart="TRUE"  
loop="TRUE"  
controller="TRUE"  
>
```

```
</body>
```

```
</html>
```



http://www.w3schools.com/tags/tag_embed.asp