SP Singapore Polytechnic

Lecture 1

Hyper**t**ext **M**arkup **L**anguage (HTML)

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What is HTML?

- HTML stands for Hyper Text Markup Language
- An HTML file is a text file containing small markup tags
- The markup tags tell the Web browser how to display the page
- HTML files have .htm or .html file extension
- A HTML file can be created using a simple text editor or using a WYSIWYG (What You See If What You Get) editor.

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# A Basic HTML page

First tag in a HTML document is the <html> tag. The HTML page should also end with the </html> end tag

After the <html> tag usually comes the <head> tag. Inside the <head> tag are other tags such as <title>, <script>, <meta> etc.

The text between the <title> tags is the title of your document displayed in your browser's caption.

The text between the <body> tags is the text that will be displayed in your browser.

ICD - Microsoft Interne...

File Edit Vie » Links »

This is my first webpage.

My Computer
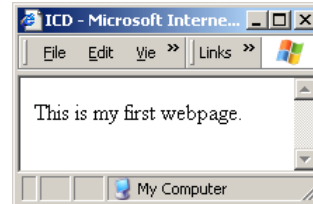
```
<html>
<head>
<title>ICD</title>
</head>
<body>
This is my first webpage.
</body>
</html>
```

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HTML Tags

- HTML files consist of HTML elements.
- HTML tags are used to mark-up HTML elements
- Tags are surrounded by the two angle brackets < and >
- E.g. tag is used to define bold text, <u> tag is used to define underlined text.
- Tags usually come in pairs

  This text is in bold

  start tag

  end tag

  This text is in **bold**.

In HTML, these tags do not really need to come in a pair:

- br
- p
- img
- hr

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Quiz!

1. HTML tags are case-sensitive. True or False?

2. The HTML code on the left will be rendered as the screenshot on the right. True or False?

```
<p>
My Bonnie      lies over
the ocean.
My Bonnie      lies over
the sea.
</p>
```

My Bonnie   lies over the ocean.

My Bonnie   lies over the sea.

My Computer

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Tag Attributes

- Some tags have attributes, which provide additional information about the HTML elements on your page.

- E.g. the <body> tag

  `<body style="background-color: red">`

  Tags with attributes

  My Computer

- Attributes always come in name/value pairs like this: name="value".

- Attributes are always added to the start tag of an HTML element.
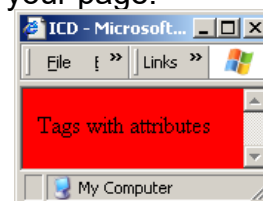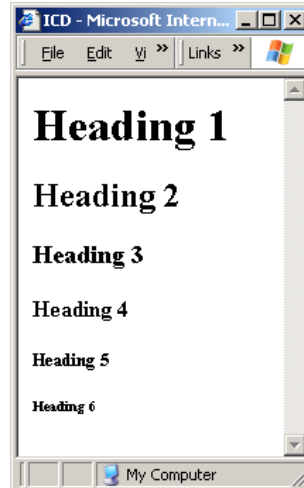
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Headings

- Headings are defined with the <h1> to <h6> tags.
- <h1> defines the largest heading. <h6> defines the smallest heading.

```
<h1>Heading 1</h1>
<h2>Heading 2</h2>
<h3>Heading 3</h3>
<h4>Heading 4</h4>
<h5>Heading 5</h5>
<h6>Heading 6</h6>
```
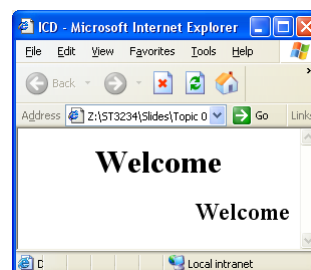
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Headings (cont)

- You can also customize the alignment of the headings by defining the "text-align" attribute to:
    - left (default)
    - right
    - center

```
<h1 style="text-align: center">Welcome</h1>
<h2 style="text-align: right">Welcome</h2>
```
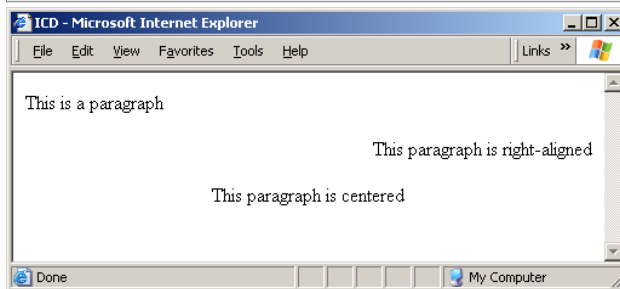
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Paragraphs

- Paragraphs are defined with the <p> tag.
- HTML automatically adds an extra blank line before and after a paragraph.

<p>This is a paragraph</p>

<p style="text-align: right">This paragraph is right-aligned</p>

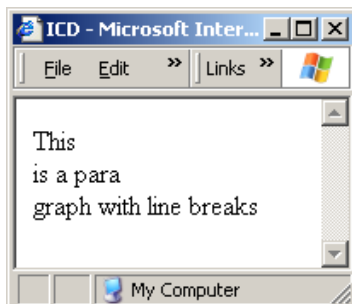<p style="text-align: center">This paragraph is centered</p>

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Line Breaks

- The <br> tag is used when you want to end a line, but don't want to start a new paragraph. The <br> tag forces a line break wherever you place it.
- The <br> tag is an empty tag. It has no closing tag.

<p>This <br> is a para
graph with line breaks</p>

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Comments

- You can insert comments in HTML using the syntax below.
- Comments are ignored by the browser. You can use comments to explain your code, which can help you when you edit the source code at a later date.
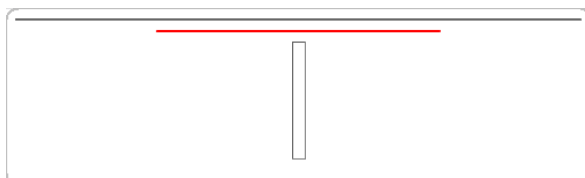
```
<!-- This is a comment -->
```

```
<!–

This is line 1 of a multi-line comment
This is line 2 of a multi-line comment
This is line 3 of a multi-line comment

-->
```

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Horizontal Rule

- You can insert a horizontal rule using the <hr> tag.

```
<hr>
<hr style="color: red; width:50%">
<hr style="width:10px; height:100px">
```

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Text Formatting

	Bold
<u>	Underline
<i>	Italics
<s>	Strikethrough
<sub>	Subscript
<sup>	Superscript

This text is bold

This text is <u>underlined</u>

This text is <i>italic</i>

This text is <s>strikethrough</s>

This text is _{subscript}

This text is^{superscript}

This text is **bold**

This text is underlined

This text is *italic*

This text is ~~strikethrough~~

This text is $_{subscript}$

This text is^{superscript}

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HTML Entities

- Some characters like the < character, have a special meaning in HTML, and therefore cannot be used in the text.
- To display a less than sign (<) in HTML, we have to use a character entity.

Result	Description	Entity Name	Entity Number
	non-breaking space		
<	less than	<	<
>	greater than	>	>
&	ampersand	&	&
°	degree	°	°

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HTML Entities (cont)

Result	Description	Entity Name	Entity Number
©	copyright	©	©
®	registered trademark	&reg	®
™	trademark	™	™
¼	fraction 1/4	¼	¼
½	fraction 1/2	½	½
¾	fraction 3/4	¾	¾
÷	division	÷	÷

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HTML Links (hyperlinks)

- The <a> (anchor) tag creates a link to another document.
- An anchor can point to any resource on the Web: an HTML page, an image, a sound file, a movie, etc.
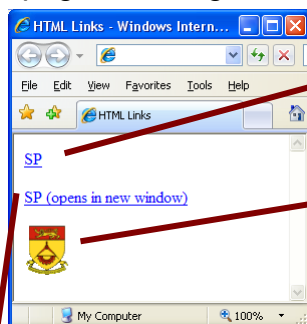
Link opens in SAME window

`<a href="http://www.sp.edu.sg/">SP</a>`

Link an image

```
<a href="http://www.sp.edu.sg">
  <img src="splogo.gif">
</a>
```

Link opens in a new window

`<a href="http://www.sp.edu.sg/" target="_blank">SP (opens in new window)</a>`

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Named Anchors
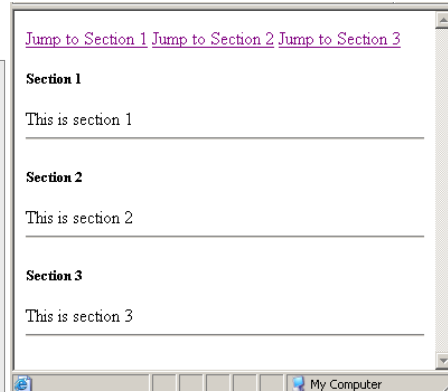
- Besides linking to another website, we can also link to a specific section on the SAME page, known as named anchors.

```
<a href="#s1">Jump to Section 1</a>
<a href="#s2">Jump to Section 2</a>
<a href="#s3">Jump to Section 3</a>

<h5><a name="s1">Section 1</a></h5>
This is section 1<hr>

<h5><a name="s2">Section 2</a></h5>
This is section 2<hr>

<h5><a name="s3">Section 3</a></h5>
This is section 3 <hr>
```
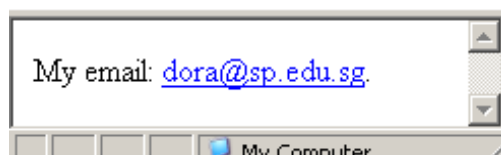

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Email Links

- This example shows how to create an email link.

```
My email:
<a href="mailto:dora@sp.edu.sg">dora@sp.edu.sg</a>.
```


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Lists

- We can create ordered or unordered lists using the <ol> and <ul> tags respectively.

1. Coffee	• Coffee
2. Milk	• Milk

```
<ol>
 li>Coffee</li>
 <li>Milk</li>
</ol>
```

```
<ul>
<li>Coffee</li>
<li>Milk</li>
</ul>
```

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Lists (cont)

- You can change the list **type**:

```
<h1>My Favourite Drinks</h1>
<ul type="circle">
<li>Coffee</li>
<li>Milk</li>
</ul>

<h1>My Favourite Foods</h1>
<ul type="square">
<li>Roti Prata</li>
<li>Laksa</li>
</ul>

<h1>My Favourite Movies</h1>
<ul type="disc">
<li>Lord of The Rings</li>
<li>Harry Potter</li>
</ul>
```

My Favourite Drinks

o Coffee
o Milk

My Favourite Foods

■ Roti Prata
■ Laksa

My Favourite Movies

• Lord of The Rings
• Harry Potter

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Lists (cont)

- Change the list **type** of an ordered list :

```
<h1>My Favourite Drinks</h1>
<ol type="a">
<li>Coffee</li>
<li>Milk</li>
</ol>

<h1>My Favourite Foods</h1>
<ol type="A">
<li>Roti Prata</li>
<li>Laksa</li>
</ol>

<h1>My Favourite Movies</h1>
<ol type="i">
<li>Lord of The Rings</li>
<li>Harry Potter</li>
</ol>
```

My Favourite Drinks

   a. Coffee
   b. Milk

My Favourite Foods

   A. Roti Prata
   B. Laksa

My Favourite Movies

   i. Lord of The Rings
  ii. Harry Potter

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Lists (cont)

- Lists can also be nested as the example below shows:

```
<ul>

<li>My Favourite Drinks</li>
<ul>
<li>Coffee</li>
<li>Milk</li>
</ul>

<li>My Favourite Foods</li>
<ul>
<li>Roti Prata</li>
<li>Laksa</li>
</ul>

<li>My Movies</li>
<ul>
<li>Lord of The Rings</li>
<li>Harry Potter</li>
</ul>

</ul>
```

- My Favourite Drinks
  - Coffee
  - Milk
- My Favourite Foods
  - Roti Prata
  - Laksa
- My Movies
  - Lord of The Rings
  - Harry Potter

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Images

- We can insert images using the <img> tag.

```
<html>
<head><title>Image</title></head>

<body>

<img src="pic.jpg">

</body>

</html>
```

NOTE

- if the image resides in a subdirectory called images, you can use this syntax:

    <img src="images/pic.jpg">

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Images (cont)

- We can change the way the **image wraps around text** through the "**CSS style vertical-align and float**" attribute.

This text is left aligned.

<img style="float:left" src="pic.jpg">

This text is right aligned.

<img style="float:right" src="pic.jpg">

This text is top aligned.

<img style="vertical-align:top" src="pic.jpg">

<img style="vertical-align:bottom "src="pic.jpg">

This text is bottom aligned.

This text is middle aligned.

<img style="vertical-align:middle" src="pic.jpg">

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\<Text font, color, size, weight\>

- We can change the way the **text is displayed** through the "**CSS style font**" attribute.
- For example

Make the font extra bigger than usual

```
<span style="font-size:x-large;font-weight:bold">Welcome</span>
to my

<span style="font-family:Curlz MT; color:red; font-
size:smaller">webpage</span>
```

Make the font size smaller than usual

Change font family to "Curlz MT"

Change color to red

Change weight to bold

- For details of CSS style font refer to
  https://www.w3schools.com/css/css_font.asp

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Tables

- Tables are defined with the \<table\>, \<tr\>, and \<td\> tags.
- Each table starts off with a \<table\> tag, and each table row is defined with the \<tr\> tag and each table cell is created with the \<td\> tag.
- Note: see **slide 30** to set the table border.

```
<table>
<tr>
<td>row 1, cell 1</td>
<td>row 1, cell 2</td>
<td>row 1, cell 3</td>
</tr>
<tr>
<td>row 2, cell 1</td>
<td>row 2, cell 2</td>
<td>row 2, cell 3</td>
</tr>
</table>
```

| row 1, cell 1 | row 1, cell 2 | row 1, cell 3 |
| row 2, cell 1 | row 2, cell 2 | row 2, cell 3 |

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Tables (cont)

- This example shows how we can merge two columns using the colspan attribute.
- Note: see **slide 30** to set the table border.

```
<table>
<tr>
<td>row 1, cell 1</td>
<td>row 1, cell 2</td>
<td>row 1, cell 3</td>
</tr>
<tr>
<td>row 2, cell 1</td>
<td colspan="2">row 2, cell 2</td>
</tr>
</table>
```

row 1, cell 1	row 1, cell 2	row 1, cell 3
row 2, cell 1	row 2, cell 2	

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Tables (cont)

- This example shows how we can merge two rows using the rowspan attribute.
- Note: see **slide 30** to set the table border.

```
<table>
<tr>
<td>row 1, cell 1</td>
<td>row 1, cell 2</td>
<td rowspan="2">row 1, cell 3</td>
</tr>
<tr>
<td>row 2, cell 2</td>
<td>row 2, cell 2</td>
</tr>
</table>
```

row 1, cell 1	row 1, cell 2	row 1, cell 3
row 2, cell 1	row 2, cell 2	

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Tables (cont)

- This example shows how we can change the default background colors of table cells, and customise colors of certain cells.
- Note: see **slide 30** to set the table border.

```
<table style="background-color: lightblue">
<tr>
<td style="background-color: lightpink"> row 1, cell 1</td>
<td>row 1, cell 2</td>
<td>row 1, cell 3</td>
</tr>
<tr>
<td>row 2, cell 1</td>
<td>row 2, cell 2</td>
<td>row 2, cell 3</td>
</tr>
</table>
```

| row 1, cell 1 | row 1, cell 2 | row 1, cell 3 |
| row 2, cell 1 | row 2, cell 2 | row 2, cell 3 |

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Tables (cont)

- This example shows how we can set the table border and the space between the border and the content in a table.
- Here we use the padding property on <td> and <th>

```
<html>
   <head>
      <meta charset="UTF-8">
      <title></title>
      <style>
         table, th, td {
            border: 1px solid black;
         }
         th, td {
            padding: 15px;
         }
      </style>
   </head>
```

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Tables (cont)

```
<body>
    <table style="background-color: lightblue">
        <tr>
            <td>row 1, cell 1</td>
            <td>row 1, cell 2</td>
            <td>row 1, cell 3</td>
        </tr>
        <tr>
            <td>row 2, cell 1</td>
            <td>row 2, cell 2</td>
            <td>row 2, cell 3</td>
        </tr>
    </table>
</body>
</html>
```

| row 1, cell 1 | row 1, cell 2 | row 1, cell 3 |
| row 2, cell 1 | row 2, cell 2 | row 2, cell 3 |

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Tables (cont)

- This example shows how we can change the **width** of the whole table or widths of individual <td> cells.

```
<table style="width: 300px">
<tr>
<td style="width: 80%">row 1, cell 1</td>
<td>row 1, cell 2</td>
<td>row 1, cell 3</td>
</tr>
<tr>
<td>row 2, cell 1</td>
<td>row 2, cell 2</td>
<td>row 2, cell 3</td>
</tr>
</table>
```

← **300 pixels** →

← **80% of table** →

| row 1, cell 1 | row 1, cell 2 | row 1, cell 3 |
| row 2, cell 1 | row 2, cell 2 | row 2, cell 3 |

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Tables (cont)

- This example shows how we can change the vertical and horizontal **alignment** of individual <td> cells.
- Table width set to 100% of the browser width and height to 100px

```
<table style="width: 100%; height: 100px">
<tr>
<td style="vertical-align: top; text-align: left">Vertical: Top, Horz: Left</td>
<td style="vertical-align: center; text-align: center">Vertical: Center, Horz: center</td>
<td style="vertical-align: bottom; text-align: right">Vertical: Bottom, Horz: Right</td>
<td>Default</td>
</tr>
</table>
```

Vertical: Top, Horz: Left			
	Vertical: Center, Horz: center		Default
		Vertical: Bottom, Horz: Right	

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Tables <th> tag

- You can also use the <th> tag in place of <td> tags for table cells that contain header data.
- The text in <th> elements are bold and centered by default.

```
<table style="width: 300px">

<tr><th>Name</th><th>Handphone</th></tr>

<tr><td>Bradford Ho</td><td>9123456</td></tr>

<tr><td>Amanda Tan</td><td>98765431</td></tr>

</table>
```
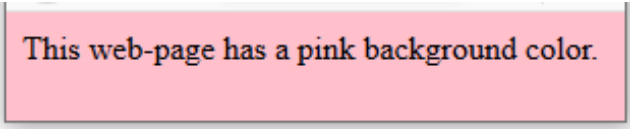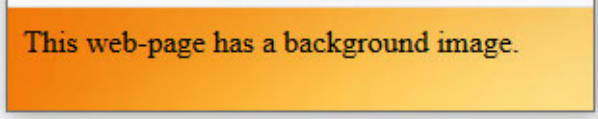
Name	Handphone
Bradford Ho	9123456
Amanda Tan	98765431

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<body> tag

- The <body> tag has two attributes where you can specify a background color or a background image.

```
<body style="background-color: pink">
    This web-page has a pink background color.
</body>
```

> This web-page has a pink background color.

```
<body style="background-image: url(background.jpg)">
    This web-page has a background image.
</body>
```
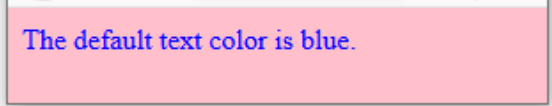
> This web-page has a background image.

<body> tag

- You can also specify the default text color in the <body> tag.

```
<body style="background-color: pink; color: #0000FF; ">
    The default text color is blue.
</body>
```

> The default text color is blue.
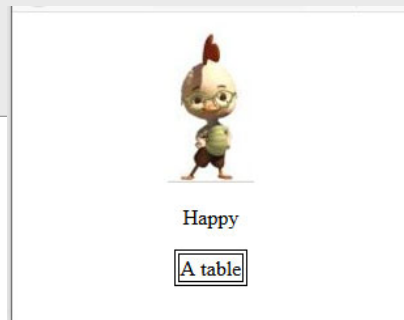
Centering Text, Image and Table

- Allows you to position any HTML element in the center of the window.

```
<body >
<img src="pic.jpg" style="display: block; margin-left: auto; margin-right: auto">
<p style="text-align: center">Happy</p>
<table style="margin-left: auto; margin-right: auto">
<tr>
<td>A table</td>
</tr>
</table>
</body>
```

Happy

A table

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HTML Colors

- Colors are displayed combining RED, GREEN, and BLUE light sources.
- Colors are defined using a hexadecimal notation for the combination of Red, Green, and Blue color values (RGB).
- Each color value ranges from #00 (lowest) to #FF(highest).

Color	Color HEX	Color RGB
	#000000	rgb(0,0,0)
	#FF0000	rgb(255,0,0)
	#00FF00	rgb(0,255,0)
	#0000FF	rgb(0,0,255)
	#FFFF00	rgb(255,255,0)
	#00FFFF	rgb(0,255,255)
	#FF00FF	rgb(255,0,255)
	#C0C0C0	rgb(192,192,192)
	#FFFFFF	rgb(255,255,255)

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Summary of tags learnt so far

<html>	Every HTML file begins with this
<head>	Appears before the <body> tag, may contain other tags such as <title>, <meta>, <style>, <script> etc
<title>	Specifies the caption to appear on browser's titlebar
<body>	Begins the body of the HTML document. Has attributes to control default background color, text color and link colors.
<p> 	Paragraph break, line break
<b> <i> <u> <s>	Text formatting tags for creating bold, italics, underlined, strikethrough etc.
<img>	Insert image
	Create ordered / unordered lists

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Summary of tags learnt so far

<a>	Create links
<table> <tr> <td>	Create tables
< >	HTML entities. Special characters.
<hr>	Horizontal rule
<!—Comment -->	Comments
style="color: xxx"	Text color
style="text-align: xxx"	Set the text alignment
style="background-color: xxx"	Set the background color
style="background-image: url(xxx)"	Set a background-image
style="display: block; margin-left: auto; margin-right: auto"	To center an image
style="margin-left: auto; margin-right: auto"	To center a table

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Forms

- A form is an area that can contain form elements.

- Form elements are elements that allow the user to enter information (like text fields, textarea fields, drop-down menus, radio buttons, checkboxes, etc.) in a form.

- A form is defined with the <form> tag.

```
<form>
 <input>
 <input>
</form>
```

Name: [   ]

Sex: ○ Male ○ Female

Date of Birth: [   ] Year [   ] Month [   ] Day

[Submit Query]

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Form Elements

- <FORM>: marks the form
- <INPUT>: tag used to define variables and field types
    - TEXT: single-line textbox
    - PASSWORD: single-line textbox but in hidden text
    - RADIO: radio button single-choice selections
    - CHECKBOX: checkbox button multiple-choice selections
    - RESET: used to reset variables back to default value
    - SUBMIT: used to submit form to the CGI script
    - BUTTON: used to submit form to a JavaScript
    - HIDDEN: used to submit hidden information
- <TEXTAREA>: tag used for multiple-line textbox
- <SELECT>: tag used for pull-down menus

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<form> tag

```
<form action="register.jsp" method="get" name="form1">
</form>
```

- The <form> tag encloses form elements and other HTML elements.
- The "**action**" attribute specifies where the data is sent when the submit button is clicked.
- The "method" attribute can have either the "get" (default) or "post" values.

"get"
- Form data is sent as a URL with form_data info appended to the end
- Can be used only if data is all ASCII and not more than 100 characters

"post"
- Form data is sent in the body of the URL request
- Cannot be bookmarked by most browsers

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<input> tags

- Form contents consist primarily of INPUT tags, which define the field types and the names of the variables.
- These INPUT tags allow the visitor to enter information or to select choices.
- Each INPUT tag is given a TYPE and NAME attributes. These attributes determine what kind of information it contains and the name identifer for the field.
- This is the syntax for an input tag:

```
<input type="option" name="text" />
```

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Input Types

Type	Description	
type="button"	Display a button which can be clicked to perform an action from a script	button
type="checkbox"	Display a check box	☑
type="file"	Display a browse button to locate and select a file	[ ] Browse...
type="hidden"	Create a hidden field, not viewable on the form	
type="image"	Display an inline image which can be clicked to perform an action from a script	👤
type="password"	Display a text box in which hides text entered by the user	********
type="radio"	Display a radio (option) button	⦿
type="reset"	Display a button which resets the form when clicked	reset
type="submit"	Display a button which submits the form when clicked	submit
type="text"	Display a text box in which displays text entered by the user	LanGear

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<input type="text">

```
<form>
Your name <input type="text" size="10" maxlength="50" value="Your name">
</form>
```

Length of the field

Your name | Your name

Maximum characters that can be typed, e.g. restrict the user from typing more than 50 characters

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<input type="radio">

```
<form>
Gender<br>
<input type="radio" value="M" name="gender" checked>Male
<input type="radio" value="F" name="gender">Female
</form>
```

Gender
◉ Male ◯ Female

NOTE
- You must **name** each radio button in order that it can be chosen.
- Radio buttons belonging to the same group must have the same name
- Use "checked" attribute to pre-select a particular radio button

47

<input type="checkbox">

```
<form>
Movies you have watched<br>
<input type="checkbox" value="starwars" name="movies">Star Wars
<input type="checkbox" value="lordoftherings" name="movies">Lord of The Rings
<input type="checkbox" value="narnia" name="movies" checked>Narnia
<input type="checkbox" value="harrypotter" name="movies">Harry Potter
</form>
```

Movies you have watched
☐ Star Wars ☐ Lord of The Rings ☑ Narnia ☐ Harry Potter

NOTE
- Check boxes belonging to the same group must have the same name
- Use "checked" attribute to pre-select a particular check box

48

<input type="password">

<form>

Enter your password:

<input type="password" name="pass" size="10" maxlength="10" />

</form>

Enter your password: _____

49

<input type="submit">

<form action="search.jsp" method="post">

Search: <input type="text" name="search">

<input **type="submit"** value="Go" />

</form>

Search: _____ Go

NOTE

• submit type usually goes with a form action tag

50

<input type="reset">

```
<form>
Your name: <input type="text">
<input type="submit" value="Register"><input type="reset">
</form>
```

Your name: [   ] Register Reset

NOTE

• use reset button to clear all fields in the form

51

<input type="image">

```
<form action="submit.jsp" method="post">
Your name: <input type="text">
<input type="image" src="submit.gif" border="0">
</form>
```

Your name: [   ] SUBMIT

NOTE

• image type performs same function as a submit button but is more visual.

• usually goes with a form action tag as well.

52

<input type="button">

- The <input type="button"> element differs from the <input type="submit"> element in that it DOES NOT submit the form.
- E.g. you might create a Javascript program to calculate the total cost of an order.

<form>

No of books purchased <input type="text" name="qty">

<input type="button" value="Calculate Total Cost" name="calculator" onclick="calculateTotalCost()"/>

</form>

No of books purchased [   ] [Calculate Total Cost]

53

<input type="hidden">

- Allows submission of default or previously specified text that is hidden from the user.

<form>

No of books purchased:

<input type="text" name="qty">

<input type="hidden" value="4.50" name="cost">

<input type="submit">

</form>

No of books purchased: [   ] [Submit Query]

54

<textarea>

<form>

Your comments:

<textarea name="comments" rows="3" cols="50">Pls type your comments

</textarea>

</form>

```
                    Pls type your comments

Your comments:
```

55

<select>

<form>

<select name="Gender">

<option value="M">Male</option>

<option value="F" **selected**>Female</option>

</select>

</form>

```
Female  v
Male
Female
```

NOTE

• Use "selected" attribute to pre-select a particular option value

• Remember to name the select tag as well.

56

FORM example

```
<form method="POST" action="SomeProgram.php">
Name:<input type="text" name="name" size="32" maxlength="80"><p>
Sex:
<input type="radio" name="sex" value="M"> Male
<input type="radio" name="sex" value="F"> Female
<p>
Date of Birth:
<input type="text" name="year" size="4" maxlength="4">Year
<input type="text" name="month" size="2" maxlength="2">Month
<input type="text" name="day" size="2" maxlength="2">Day
<p>
<input type="submit">
</form>
```

Name: _____

Sex: ○ Male ○ Female

Date of Birth: ____ Year ____ Month ____ Day

Submit Query

57

Summary of form tags

<form>	Begin every form section with this
<input>	Used to create • Textfield <input type="text"> • Radiobutton <input type="radio"> • Checkbox <input type="checkbox"> • Password field <input type="password"> • File browsing <input type="file">
<textarea>	Multi-line textbox
<select>	Dropdown list

58

Other useful tags

59

META Element

- Records document information, forwards and refreshes pages
    - NAME="author"
    - NAME="keywords"
    - NAME="description"
    - HTTP-EQUIV="refresh"

All these are embedded in the <head> tag

Define keywords for search engines:
```
<meta name="keywords" content="HTML, DHTML, CSS, XML, XHTML, JavaScript, VBScript" />
```

Define a description of your web page:
```
<meta name="description" content="Free Web tutorials on HTML, CSS, XML, and XHTML" />
```

Define the last revision of your page:
```
<meta name="revised" content="Hege Refsnes, 6/10/99" />
```

Refresh page every 5 seconds:
```
<meta http-equiv="refresh" content="5" />
```

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META Element, Example

```
< <!DOCTYPE html >
<head>
<title>Page 01</title>
<META http-equiv="refresh" content="5;URL=page02.htm">
</head>

<body style="background-color: #ffff00">
<h1>Page 01</h1>
You will be redirected to the page 02 automatically in 5 seconds.
</body>
</html>
```
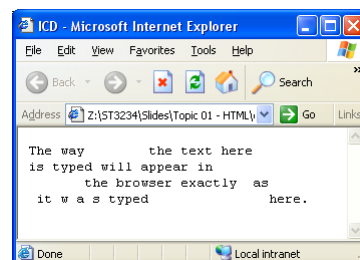
61

<pre> tag

- The **<pre>** tag preserves the text formatting exactly as it was typed in the HTML document.

```
<pre>
The way        the text here
is typed will appear in
      the browser exactly  as
 it w a s typed              here.
</pre>
```
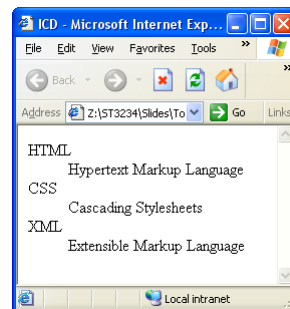

62

<dl><dt><dd>

- The <dl>, <dt> and <dd> tags allow you to define definition terms.
- <dl> starts the definition list.
- Each new definition term is defined with <dt>
- Each definition of each term is defined with <dd>

```
<dl>
<dt>HTML</dt>
<dd>Hypertext Markup Language</dd>
<dt>CSS</dt>
<dd>Cascading Stylesheets</dd>
<dt>XML</dt>
<dd>Extensible Markup Language</dd>
</dl>
```

63

<div>

- The <div> tag defines a division/section in a document.
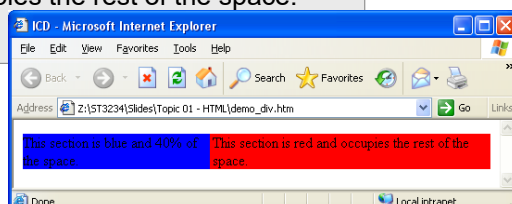- It is often used in conjunction with stylesheets to divide a document into columns as shown below.

```
<div style="background-color: blue; width: 40%; float:
left;">
This section is blue and 40% of the space.
</div>
<div style="background-color: red">
This section is red and occupies the rest of the space.
</div>
```

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<span>

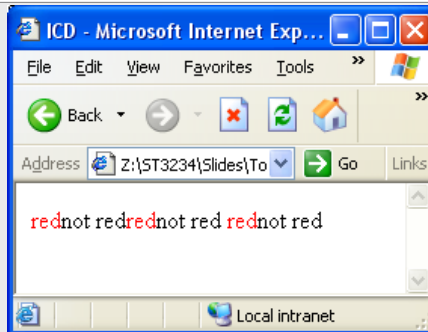- The <span> tag is often used in conjunction with stylesheets to format small blocks of text, images etc.

```
< <!DOCTYPE html >
<head>
<title>ICD</title>
<style>
.red {color:red;}
</style>
</head>
<body>
<span class="red">red</span>not red<span class="red">red</span>not red
<span class="red">red</span>not red
</body>
</html>
```

65

<iframe>

- An iframe is used to display a web page within a web page.
- An HTML iframe is defined with the <iframe> tag:

  <**iframe** src="URL"><**/iframe**>

  The **src** attribute specifies the URL (web address) of the inline frame page.
- Use the height and width attributes to specify the size of the iframe. The height and width are specified in pixels by default:

  <**iframe** src="demo_iframe.html" height="200" width="300"><**/iframe**>
- You can use CSS to set the height and width of the iframe:

  <**iframe** src="demo_iframe.html" style="height:200px;width:300px;"><**/iframe**>

66

<iframe>

- By default, an iframe has a border around it. To remove the border, add the style attribute and use the CSS border property:

  <**iframe** src="demo_iframe.html" style="border:none;"><**/iframe**>

- With CSS, you can also change the size, style and color of the iframe's border:

  <**iframe** src="demo_iframe.html" style="border:2px solid red;"><**/iframe**>

- An iframe can also be used as a target for the hyperlinks. An iframe can be named using the name attribute. This implies that when a link with a target attribute with that name as value is clicked, the linked resource will open in that iframe.

  <**iframe** name="**myFrame**"><**/iframe**>

  <p> Wikipedia </p>

  Note: Website that has set the security policy of not displaying in an iframe will render as a blank page in the target named iframe.

67

< iframe >
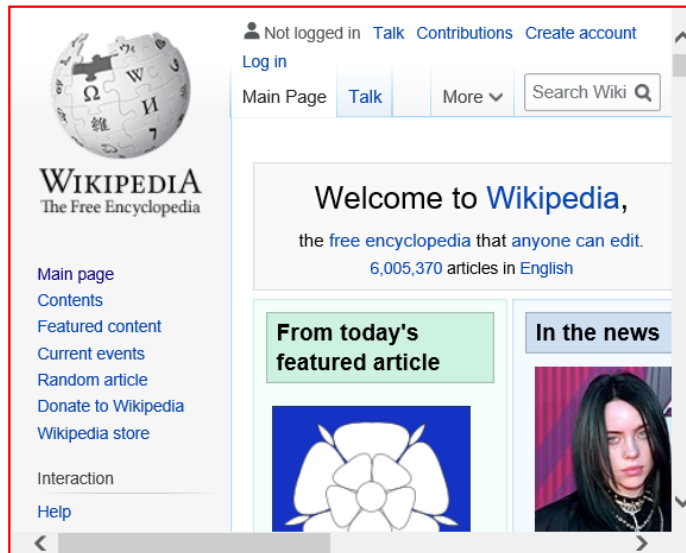
```
<!DOCTYPE html>
<html>
   <head>
      <title>TODO supply a title</title>
      <meta charset="UTF-8">
      <meta name="viewport" content="width=device-width, initial-scale=1.0">
   </head>
   <body >
      <p><a href="https://en.wikipedia.org/"
target="iframe_a">Wikipedia</a></p>
      <iframe name="iframe_a" width="500px"
         height="400px" style="border:2px solid red;"></iframe>
   </body>
</html>
```

68

<iframe>

Wikipedia

69

End

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