
Lecture 1

Hypertext Markup Language (HTML)



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.



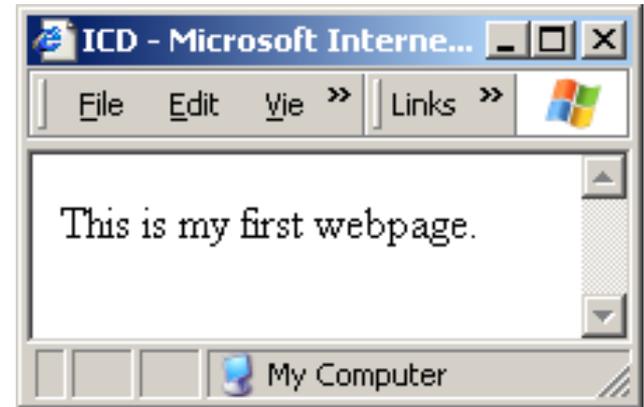
A Basic HTML page

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.



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



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



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">
```

- Attributes always come in name/value pairs like this:
name="value".
- Attributes are always added to the **start** tag of an HTML element.



Headings

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

```
<h1>Heading 1</h1>
```

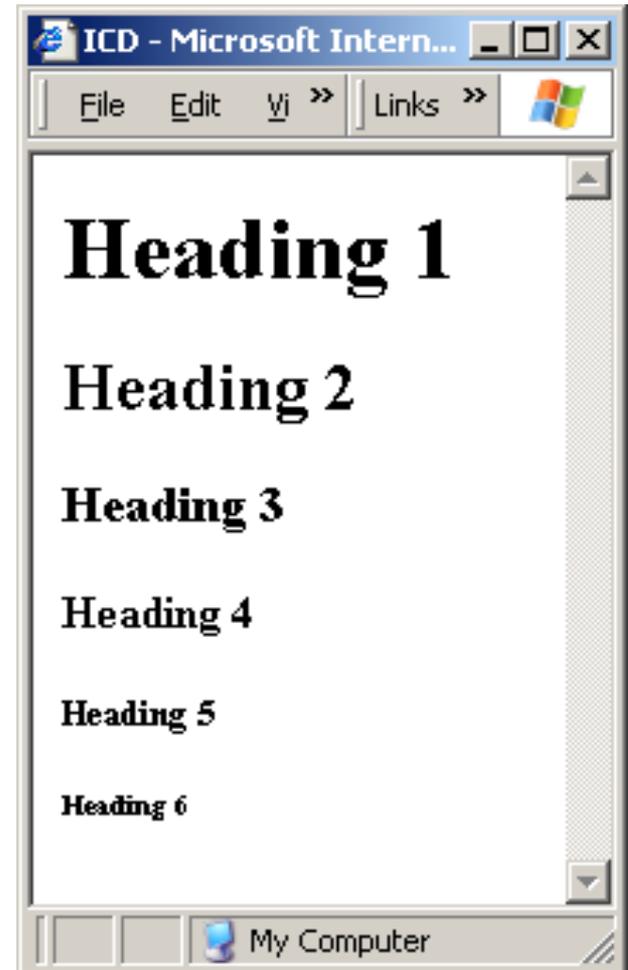
```
<h2>Heading 2</h2>
```

```
<h3>Heading 3</h3>
```

```
<h4>Heading 4</h4>
```

```
<h5>Heading 5</h5>
```

```
<h6>Heading 6</h6>
```



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>
```



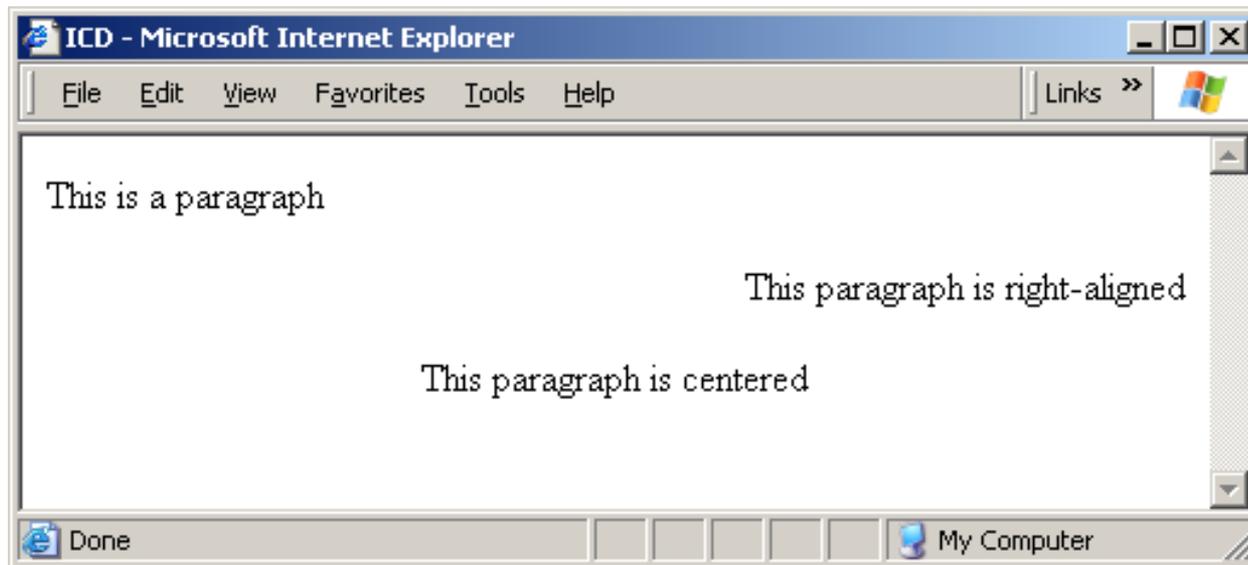
Paragraphs

- 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>
```

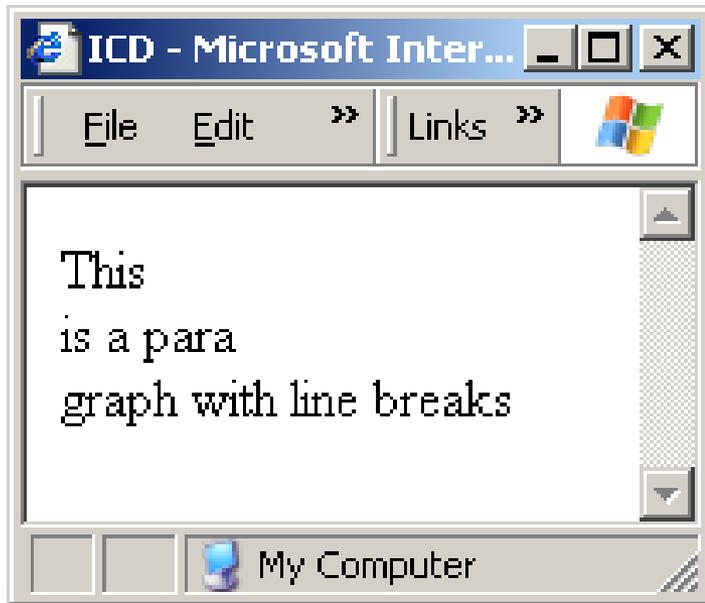
```
<p style="text-align: center">This paragraph is centered</p>
```



Line Breaks

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

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



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
```

```
-->
```



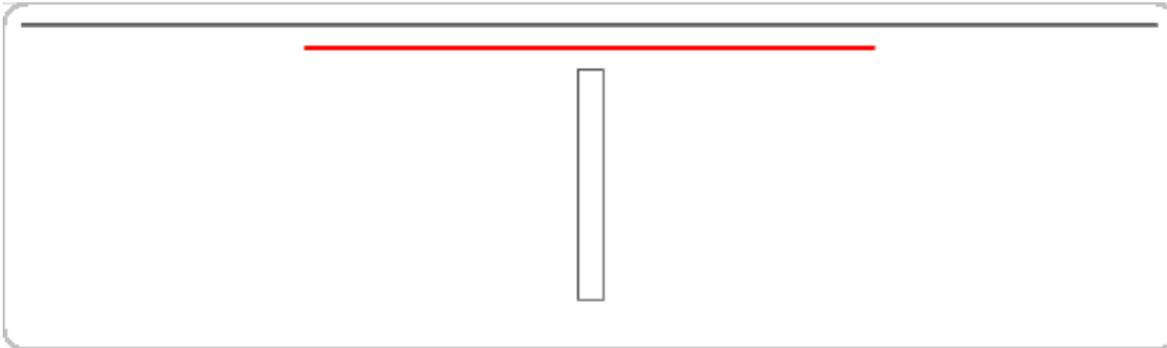
Horizontal Rule

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

```
<hr>
```

```
<hr style="color: red; width:50%">
```

```
<hr style="width:10px; height:100px">
```



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



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	°	°



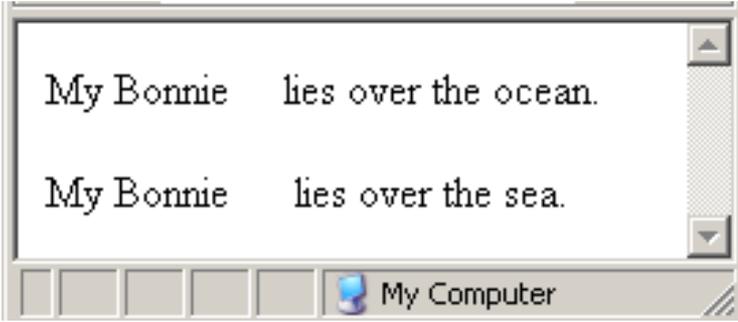
HTML Entities (cont)

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



Quiz! – Section 1

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?

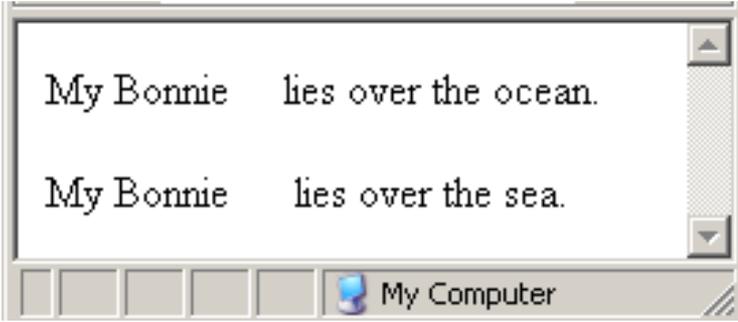
<pre><p> My Bonnie lies over the ocean. My Bonnie lies over the sea. </p></pre>	
---------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------

3. Why do we need HTML entities?



Quiz! – Section 1 (Solution)

1. HTML tags are case-sensitive. **False**
2. The HTML code on the left will be rendered as the screenshot on the right. **True**

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

3. Why do we need HTML entities?

Some characters like < or > special meaning in HTML..hence..



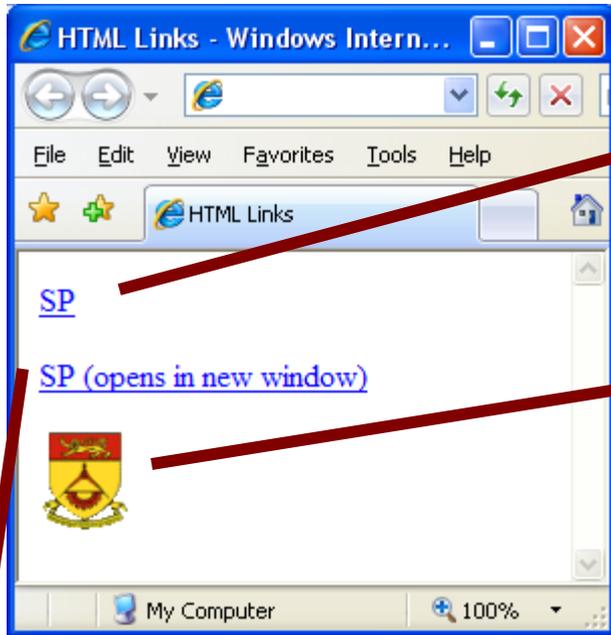
Continue Section 2 in next file

Lecture 1

Hypertext Markup Language (HTML)

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">  
    
</a>
```

Link opens in a new window

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



Named Anchors

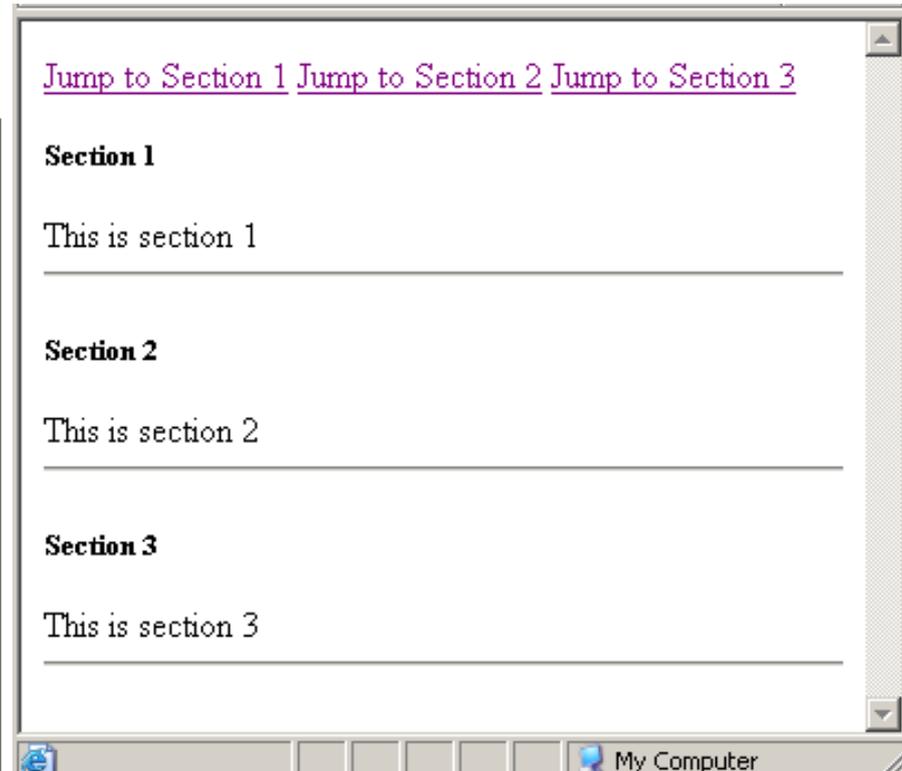
- Besides linking to another website, we can also link to a specific section on the SAME page, known as **named anchors**.

```
<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>
```



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>.
```



Lists

- We can create **ordered** or **unordered** lists using the `` and `` tags respectively.

1. Coffee
2. Milk

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

- Coffee
- Milk

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



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



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



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



Images

- We can insert images using the `` tag.

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

</body>
</html>
```



NOTE

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

```

```



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.

```

```

This text is right aligned.



```

```



This text is top aligned.

```

```



```

```

This text is bottom aligned.



This text is middle aligned.

```

```



<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



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



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	



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	



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



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>
```



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



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>
```



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



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	Vertical: Bottom, Horz: Right	Default
---------------------------	--------------------------------	-------------------------------	---------



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



Quiz! – Section 2

1. `<a>` (anchor) tag can ONLY create a link to other resources (like html, doc, image, etc) or a email link.
True or False?
2. What is the purpose of attributes for html tag?
3. What are the possible tags used to create a table?



Quiz! – Section 2 (Solution)

1. `<a>` (anchor) tag can ONLY create a link to other resources (like html, doc, image, etc) or a email link.

False

2. What is the purpose of attributes for html tag?
Recall ``, `<ol type="a">`
3. What are the possible tags used to create a table?
`<table>`, `<tr>`, `<td>`, **`<th>`**



Continue Section 3 in next file

Lecture 1

Hypertext **M**arkup **L**anguage (HTML)

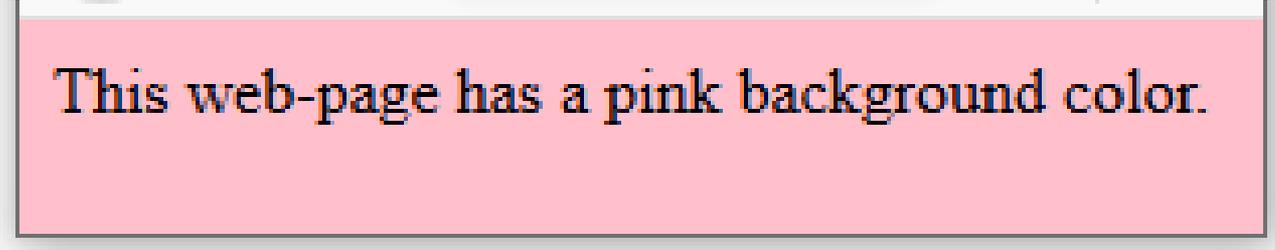
<body> tag

- 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>
```

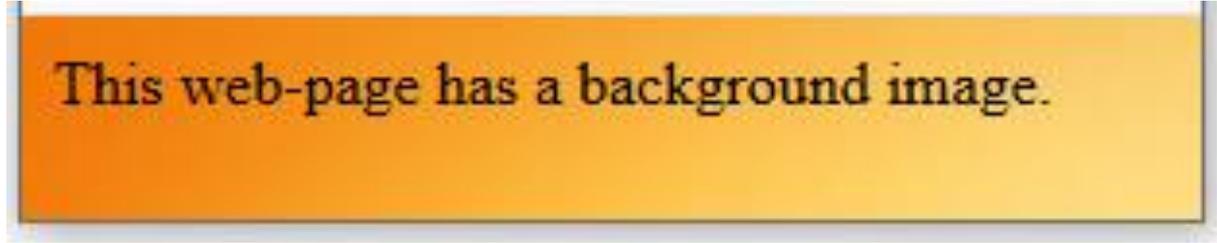


This web-page has a pink background color.

```
<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.

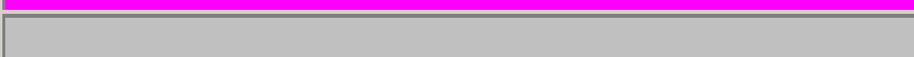
```
<body >

<p style="text-align: center">Happy</p>
<table style="margin-left: auto; margin-right: auto">
<tr>
<td>A table</td>
</tr>
</table>
</body>
```



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)



Summary of tags learnt so far

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



Summary of tags learnt so far

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



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



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



<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



<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 identifier for the field.
- This is the syntax for an input tag:

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



Input Types

Type	Description	
type="button"	Display a button which can be clicked to perform an action from a script	<input type="button" value="button"/>
type="checkbox"	Display a check box	<input checked="" type="checkbox"/>
type="file"	Display a browse button to locate and select a file	<input type="file"/> <input type="button" value="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	<input alt="User icon" type="image"/>
type="password"	Display a text box in which hides text entered by the user	<input type="password" value="kjkjkjkjkjk"/>
type="radio"	Display a radio (option) button	<input type="radio"/>
type="reset"	Display a button which resets the form when clicked	<input type="reset" value="reset"/>
type="submit"	Display a button which submits the form when clicked	<input type="submit" value="submit"/>
type="text"	Display a text box in which displays text entered by the user	<input type="text" value="LanGear"/> 

<input type="text">

```
<form>
```

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

```
</form>
```

Length of the field

Your name

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



<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



<input type="password">

```
<form>
```

Enter your password:

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

```
</form>
```

Enter your password:



<input type="submit">

```
<form action="search.jsp" method="post">  
Search: <input type="text" name="search">  
<input type="submit" value="Go" />  
</form>
```

Search:

NOTE

- submit type usually goes with a form action tag



Quiz! – Section 3

1. What are the common attributes for <body> tag?
2. What are the possible tags used to create a form?
3. Why do we need attributes 'name' and 'value' for <input> tag?



Quiz! – Section 3 (Solution)

1. What are the common attributes for <body> tag?
background-color, background-image, color
2. What are the possible tags used to create a form?
<form>, <input>, <textarea>, <select>
3. Why do we need attributes 'name' and 'value' for <input> tag?

Think about how web server is going to process/extract form data that user submit. Name is to identify the input field and value is the stored data for the input field.



Continue Section 4 in next file

Lecture 1

Hypertext Markup Language (HTML)

<input type="reset">

```
<form>
```

```
Your name: <input type="text">
```

```
<input type="submit" value="Register"><input type="reset">
```

```
</form>
```

Your name:

NOTE

- use reset button to clear all fields in the form



<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:

NOTE

- image type performs same function as a submit button but is more visual.
- usually goes with a form action tag as well.



<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



<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



<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



<textarea>

```
<form>
```

Your comments:

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

```
</textarea>
```

```
</form>
```

```
Pls type your comments
```

Your comments:



<select>

```
<form>  
<select name="Gender">  
<option value="M">Male</option>  
<option value="F" selected>Female</option>  
</select>  
</form>
```



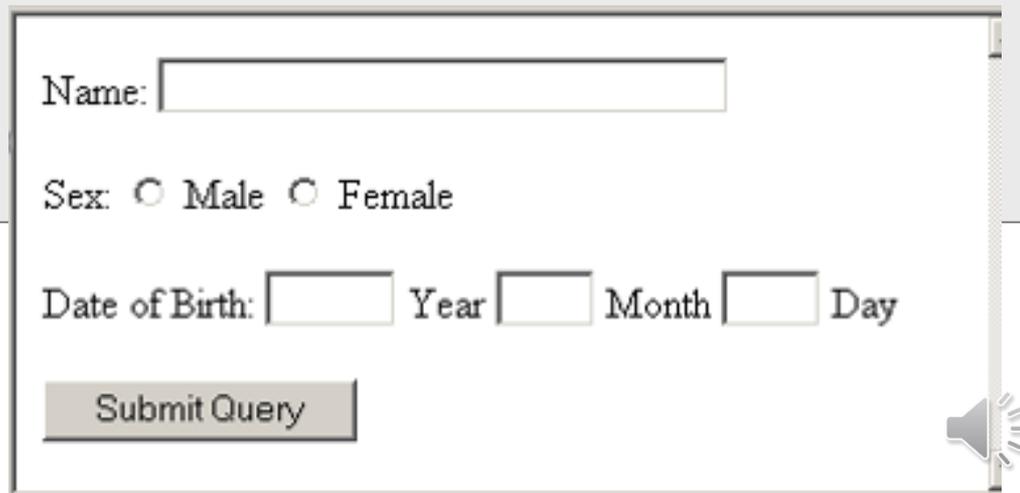
NOTE

- Use “selected” attribute to pre-select a particular option value
- Remember to name the select tag as well.



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



Summary of form tags

<form>	Begin every form section with this
<input>	Used to create <ul style="list-style-type: none">• 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



Other useful tags



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" />
```



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>
```



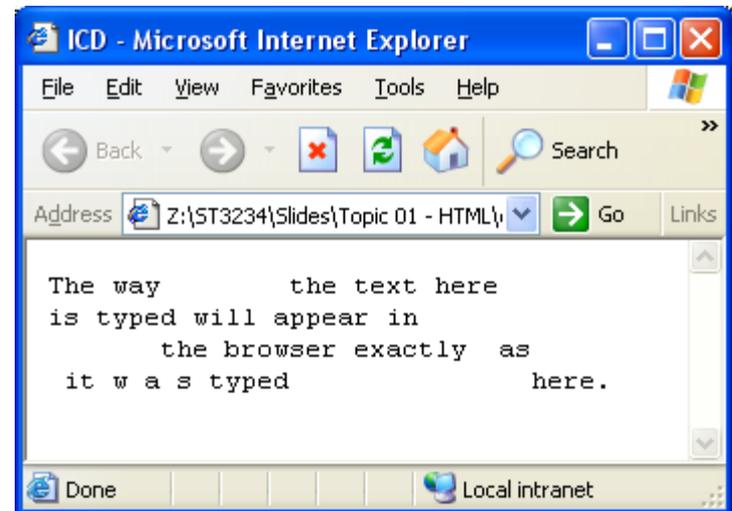
<pre> tag

- 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.
```

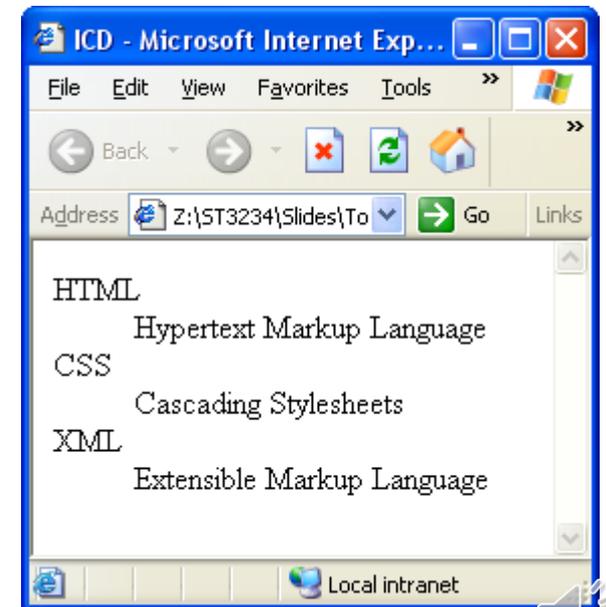
```
</pre>
```



<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>
```



<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;">
```

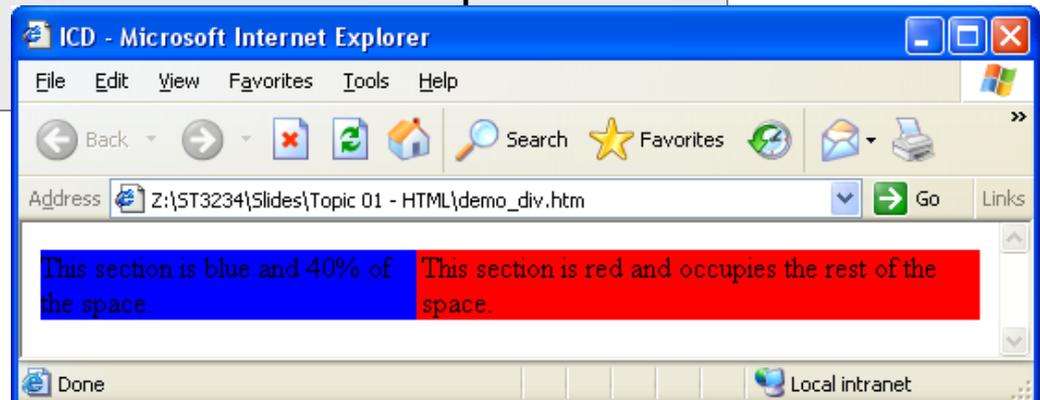
This section is blue and 40% of the space.

```
</div>
```

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

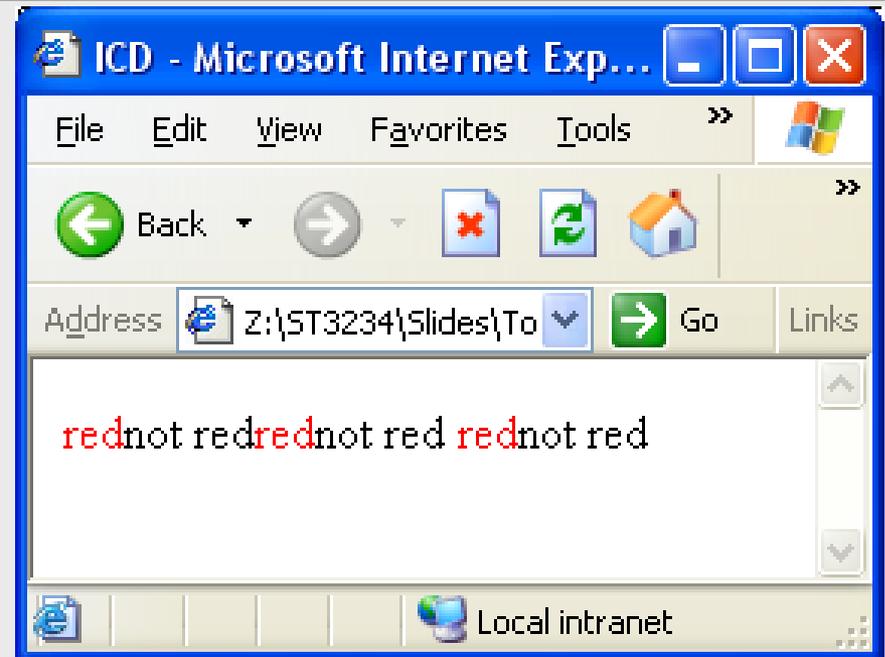
This section is red and occupies the rest of the space.

```
</div>
```



- The 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>
```



<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>
```



<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><a href="https://en.wikipedia.org/" target="myFrame"> Wikipedia  
</a></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.



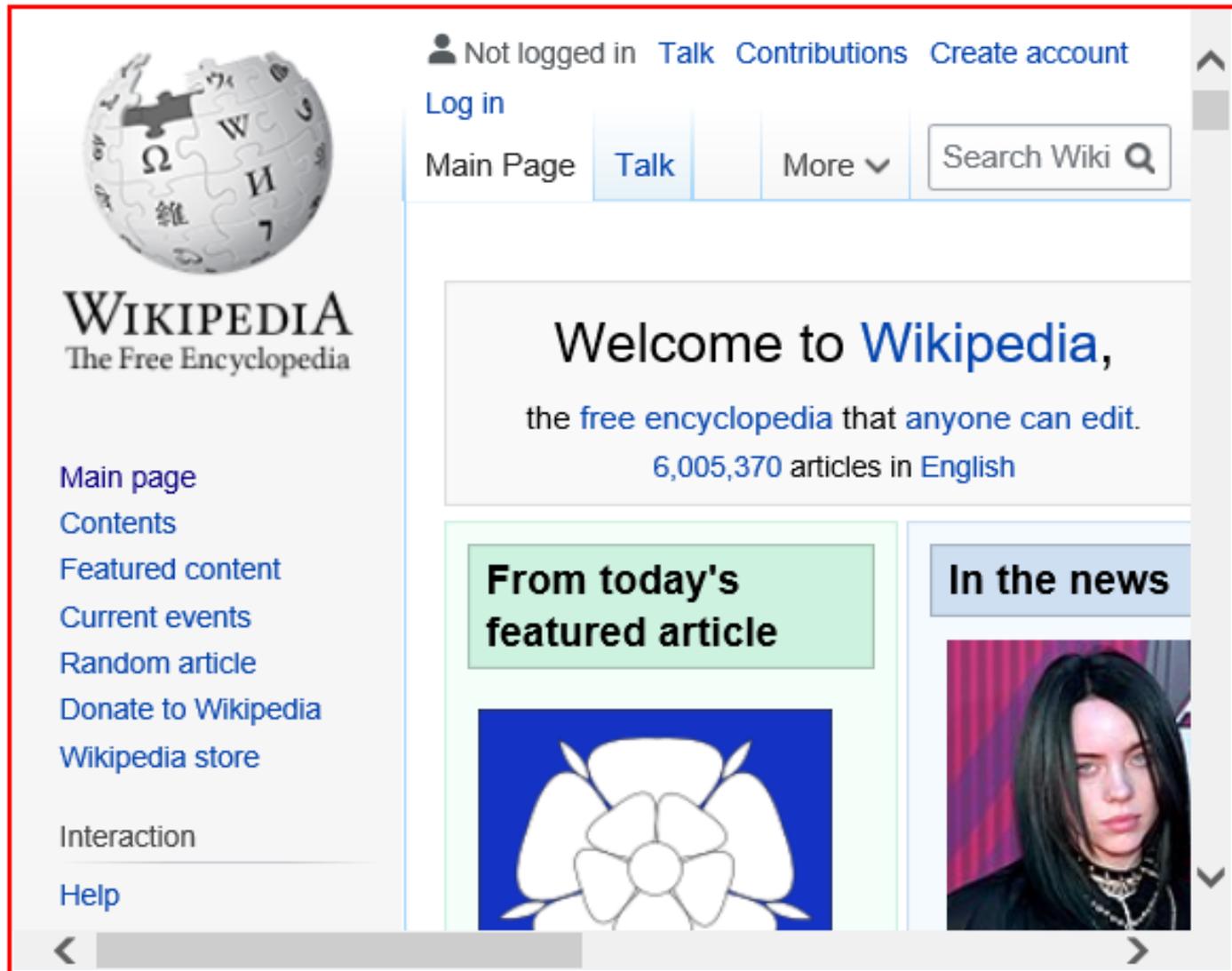
< iframe >

```
<!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>
```



<iframe>

Wikipedia



The screenshot shows the Wikipedia homepage with a red border. On the left is a sidebar with navigation links. The main content area features a welcome message, a featured article section with a blue flower icon, and an 'In the news' section with a photo of a woman.



WIKIPEDIA
The Free Encyclopedia

[Main page](#)
[Contents](#)
[Featured content](#)
[Current events](#)
[Random article](#)
[Donate to Wikipedia](#)
[Wikipedia store](#)

Interaction

[Help](#)

Not logged in [Talk](#) [Contributions](#) [Create account](#)
[Log in](#)

[Main Page](#) [Talk](#) [More](#)

Welcome to **Wikipedia**,
the [free encyclopedia](#) that [anyone can edit](#).
6,005,370 articles in [English](#)

From today's featured article



In the news



Quiz! – Section 4

1. For check boxes i.e. tag `<input type="checkbox" name="..."...>` belong to same group, it must have different name value.
True or False
2. What are the tag used to create a drop down list?
3. What html tag is needed to create a webpage within a webpage?



Quiz! – Section 4 (Solution)

1. For check boxes i.e. tag `<input type="checkbox" name="..."...>` belong to same group, it must have different name value.

False

2. What are the tag used to create a drop down list?

<select>, <option>

3. What html tag is needed to create a webpage within a webpage?

<iframe>



End

