

**Computer Resource Centre – Piliyandala Education Zone
Prince of Wales College, Moratuwa**

Web Designing & Development Workshop - HTML

Web Designing and Development

One of the major service of the Internet is World Wide Web. It consists or millions of web sites. Each web site is having its own web address (URL – Uniform Resource Locator)

Eg.

<http://www.google.com>

http → Protocol (Hypertext Transfer Protocol)

www → host name (World Wide Web)

google.com → Domain name

.com → top level domain such as .gov, .edu, .net, .org, .lk, .uk)

Different between Static and Dynamic Web Pages

A static web page is one that has been written once, like a word processing document, and then saved onto the web server. It's like a file. If you could access the web server at a file system level, move the file over to your computer, and then open it up locally in your web browser, it should look exactly the same as if you looked at it through the Internet. Any changes to a static web page need to be made manually, and then saved again.

A dynamic web page is created on the fly. It doesn't actually exist on the web server until a web browser requests it. When a request is made, web server runs whatever program will create the web page. That program creates the page dynamically and returns it to the web server, which then passes it along to the web browser.

HTML (Hypertext Markup Language) is used to design web pages. Web Editors such as Microsoft Front Page, Macromedia Dream Viewer are also used to develop web pages.

Web Browsers are used to brows the web. Eg. Internet Explorer, Netscape Navigator, Opera, Mozilla Fire fox are examples for web browsers.

HTML (Hypertext Markup Language).

HTML programs consist of **Markup Tags**. It is not a programming language. It's a markup language.

There are two types of Tags.

1. Container Tags

These tags consist in pairs.

Eg. <Html></Html>
<Head>.....<Head>

2. Non Container Tags

These are single Tags.

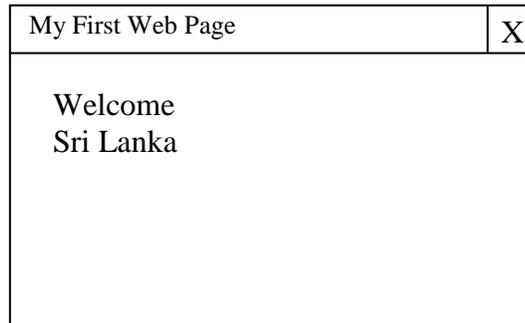
Eg.

<Hr>

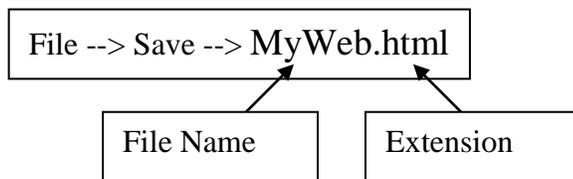
A simple HTML program is showing below. Its output is also shows there.

```
<Html>
<Head>
<Title>My First Web Page</Title>
</Head>
<Body>

Welcome <br>
Sri Lanka
</Body>
</Html>
```



Use the Note Pad software (Start-->All Programs-->Accessories-->Note Pad) to type this HTML Program and save it by giving file name and “.html”. Eg.



Then go to the Microsoft Internet Explorer or any other web browser and open that file. You can see the web page if you correctly typed that HTML Code. Now you can do some changes and save the HTML program again and refresh the Browser.

```
File -->Open-->Brows--> MyWeb.html
```

- ✓ HTML started with <Html> Tag and ended with </Html>
- ✓ HTML Program consists of Head and Body.
 - Within the Head Tags you can type the “Title”, Java Scripts or Cascading Style Sheets and Meta Tags. <Head> </Head>
Eg.
<Head>
<Title>My First Web Page</Title>
<style type="text/css">
body{background-color:#d0e4fe;}
h1{color:orange;text-align:center;}
</style>

```

<script type="text/javascript">
function displayDate()
{ document.getElementById("demo").innerHTML=Date();}
</script>
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1" />
<meta name="Keywords"
content="XML,tutorial,HTML,DHTML,CSS,XSL,XHTML,JavaScript,ASP" />
</Head>

```

- Web Contents such as Text, Pictures, Video Clips, and Sound Clips, Scripts are writing within Body Tags.

```

<Body>
Welcome <br>
Sri Lanka
</Body>

```

How to Display Headings on a web page

There are 6 Heading Levels

```

<H1> Sri Lanka </H1>   Largest Heading Size
<H2> Sri Lanka </H2>
<H3> Sri Lanka </H3>
<H4 align="center"> Sri Lanka </H4>
<font color="blue" >
<H5> Sri Lanka </H5>
</font>
<H6> Sri Lanka </H6>   Smallest Heading Size

```

Change the font Size, Font Coloures and Font faces

```

<Font Size="5" Color="Red" Face="Garamond">Welcome to Sri Lanka</Font>

```

You can use colour name or colour number. Colour number is hexadecimal and it consists of 6 digits starting with #. First two numbers indicating Red colour, Second two numbers indicating Green colour and last two numbers indicating Blue colour.

Color = "#66CC5F"

#66CC5F
 ↑ ↑ ↑
 Red Green Blue

Output

```

Welcome
Sri Lanka
Hello ....

```


 Tag is used for Line Break

Eg. Welcome
Sri Lanka
Hello

Font Effects

Tags	Description
<code>Hello Sri Lanka</code>	Boldface
<code><I> Hello Sri Lanka</I></code>	Italic
<code> Hello Sri Lanka</code>	Emphasis
<code><cite> Hello Sri Lanka</cite></code>	Citation
<code><U> Hello Sri Lanka</U></code>	Underline
<code>21<SUP>st</SUP></code>	Superscript (21 st)
<code>CO<SUB>2</SUB></code>	Subscript (CO ₂)

How to draw a Horizontal Line across a web page

`<Hr>`

Change the Attributes of Horizontal Line

`<Hr Size="3" Color="Blue" Width="50 %" align="left" noshade>`

How to insert a picture to a web page.

``



- Picture File Name should be write with extension.
- Picture file and html file should be saved in the same place.
- If the picture file in different location you should have to specify the path of that file

Eg. ``

Attributes of the Image Tag

You can change the Width, Height, of a Picture or insert a border around a picture by using following attributes.

`<p align="center">`

``

`</p>`

Attributes of the Body Tag

You can change the colour of a web page or can be insert a picture to a web page.

How to change the colour of a web page

Eg.

`<Body bgcolor="green">`

`<Body bgcolor="pink">`

`<Body bgcolor="#66cc33">`

How to insert a background picture of a web page

Eg.

```
<Body background="blue hills.jpg">
```

Relative path is best

```
<Body background="pics/blue hills.jpg">
```

Absolute path

```
<Body background="d:/pics/mypics/blue hills.jpg">
```

Insert a Hyperlink to a web page

```
<A Href="hist.html">History</A>
```

Link to hist.html file.

Label is History.
You can click on
the "History" to go
to "hist.html file.

Output

History

Insert a Hyperlink to a web site

```
<A Href="http://www.google.com">Google</A>
```

Link to a web site

Label

Insert an Email Link

```
<A Href="mailto:samantha@gmail.com">Contact Me</A>
```

Hyperlinks to same page

Example

```
<a href="#C1">Jump to Chapter 1</a><br>
<a href="#C2">Jump to Chapter 2</a><br>
<a href="#C3">Jump to Chapter 3</a><br><br>
```

```
<h2 id="C1">Chapter 1</h2>
<p align="justify"> jsdjflksd  sdjfdsj fdfsjsdlkf fdfs sjfsdkljf fjds
jsdjflksd  sdjfdsj fdfsjsdlkf fdfs sjfsdkljf fjds
jsdjflksd  sdjfdsj fdfsjsdlkf fdfs sjfsdkljf fjds
</p>
```

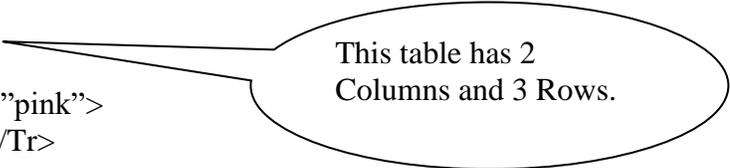
```
<h2 id="C2">Chapter 2</h2>
<p> jsdjflksd  sdjfdsj fdfsjsdlkf fdfs sjfsdkljf fjds
jsdjflksd  sdj fdsj fdfsjsdlkf fdfs sjfsdkljf fjds
jsdjflksd  sdjfdsj fdfsj sdlkf fdfs sjfsdkljf fjds
</p>
```

```
<h2 id="C3">Chapter 3</h2>
<p> jsdjflksd  sdjfdsj fdfs jsdlkf fdfs sjfsdkljf fjds
jsdjflksd  sdjfdsj fdfsjs dlkf fdfs sjfsdkljf fjds
jsdjflksd  sdjfdsj fdfsjs dlkf fdfs sjfsdkljf fjds
</p>
```

How to Insert a Table to a web page

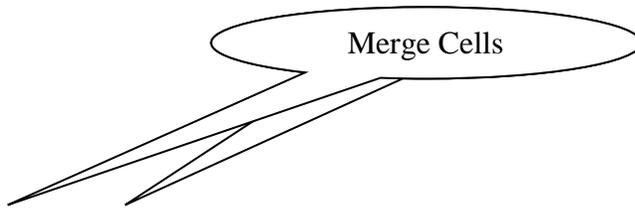
Name	Grade
Ravi	11C
Soma	11A

```
<Table border="1" width="30%" bgcolor:"pink">
<Tr><Th>Name</Th><Th>Grade</Th></Tr>
<Tr><Td>Ravi</Td><Td>11C</Td></Tr>
<Tr><Td>Soma</Td><Td>11A</Td></Tr>
</Table>
```



This table has 2
Columns and 3 Rows.

Merge Cells of a Table

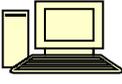


Name	Subject	
	Science	Maths
Ravi	65	68
Soma	76	57

This table has 3 Columns and 4 Rows.

```
<Table border="3" width="50%">
<Tr><Th rowspan="2">Name</Th><Th colspan="2">Subject</Th></Tr>
<Tr><Th>Science</Th><Th>Maths</Th></Tr>
<Tr><Td>Ravi</Td><Td>65</Td><Td>68</Td></Tr>
<Tr><Td>Soma</Td><Td>76</Td><Td>57</Td></Tr>
</Table>
```

Insert Pictures into a Table

Computers	Picture
Desktop	
Laptop	

DeskComputer.jpg

Laptop.jpg

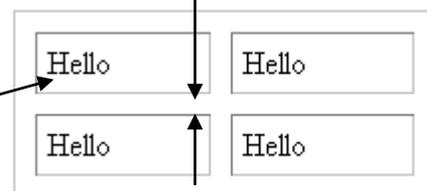
If you don't want to show the borders of the table, keep the border = 0

```
<Table border="1">
<Tr><Th>Computers</Th><Th>Picture</Th></Tr>
<Tr><Td>Desktop</Td><Td><Img src="DeskComputer.jpg"></Td></Tr>
<Tr><Td>Laptop</Td><Td><Img src="Laptop.jpg"></Td></Tr>
</Table>
```

```
<Table border="1" cellpadding="5" cellspacing="10">
<Tr><Td>Hello</Td>
<Td>Hello</Td></Tr>
.....
```

Cell Padding

Cell Spacing



Inserting Special Symbols to a web page

Symbol	HTML Code
>	>
<	<
£	£
¥	¥
space	

Insert Comment on the HTML Program

<! --This page is used to display maps of different Countries -->

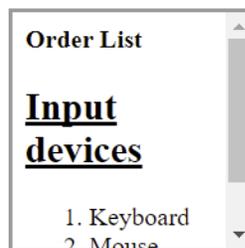
Insert Marquee (Flying text or object)

<marquee>Welcome</marquee>

<marquee></marquee>

<marquee direction = "right" behavior = "alternate" scrolldelay="200">Welcome</marquee>

IFRAME (Inline frame)



```
<IFRAME id=frame2 src="Temp.htm" scrolling="no" frameborder="0" height="150">
</IFRAME>
```

Insert a Form and Form Objects

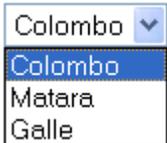
Eg.

```
<html><head></head><body>
<h3 align="center">Login</h3>
<form name="form1" method="post" action="login.php">
Login ID: <input type="text" name="login" /><br><br>
Password : <input type="password" name="pwd" />
<br><br><input type="submit" value="Login" />
</form>
<body></html>
```

Login

Login ID:

Password:

Form Object	HTML Code	
input box	<code><input type="text" name="firstname" /></code>	
text area box	<code><textarea name="textarea" cols="40" rows="3"></textarea></code>	
radio button	<code><input type="radio" name="radiobutton" value="radiobutton"></code>	
check box	<code><input type="checkbox" name="checkbox" value="checkbox"></code>	
button	<code><input type="submit" name="Submit" value="Submit"></code> <code><input type="reset" name="Submit" value="clear"></code> <code><input type="button" name="Submit" value="ok"></code>	
List / menu	<code><select name="city"></code> <code><option>Colombo</option></code> <code><option>Matara</option><option>Galle</option></code> <code></select></code>	

Compare GET vs. POST

The following table compares the two HTTP methods: GET and POST.

	GET	POST
BACK button/Reload	Harmless	Data will be re-submitted (the browser should alert the user that the data are about to be re-submitted)
Bookmarked	Can be bookmarked	Cannot be bookmarked
Cached	Can be cached	Not cached

Encoding type	application/x-www-form-urlencoded	application/x-www-form-urlencoded or multipart/form-data. Use multipart encoding for binary data
History	Parameters remain in browser history	Parameters are not saved in browser history
Restrictions on data length	Yes, when sending data, the GET method adds the data to the URL; and the length of a URL is limited (maximum URL length is 2048 characters)	No restrictions
Restrictions on data type	Only ASCII characters allowed	No restrictions. Binary data is also allowed
Security	<p>GET is less secure compared to POST because data sent is part of the URL</p> <p>Never use GET when sending passwords or other sensitive information!</p>	POST is a little safer than GET because the parameters are not stored in browser history or in web server logs
Visibility	Data is visible to everyone in the URL	Data is not displayed in the URL

Inserting a Frame to a Web Page

Frames are used to divide the Browser into several parts and load several html files to each frame.

Divide the Browser into two Rows

```
<HTML>
<head>
</head>
<frameset rows =”60%, 40%”>
<frame src = “Summary.html”>
<frame src = “Details.html”>
</frameset>
<body>
</body>
</HTML>
```



Divide the Browser into two Columns

```
<HTML><head></head>
<frameset cols =”30%, 80%”>
<frame src = “Topics.html”>
<frame src = “Details.html”>
</frameset>
<body></body></HTML>
```



Lists

Order list

```
<ol>
<li>pencils</li>
<li>pens</li>
<li>erasers</li>
</ol>
```

Output

1. Pencills
2. Pens
3. Erasers

```
<ol type="a" start=3></font>
<li>pencils</li>
<li>pens</li>
<li>erasers</li>
</ol>
```

Output

- c. Pencills
- d. Pens
- e. Erasers

Unorder list

```
<ul >
<li>Cricket</li>
<li>football</li>
<li>rugby</li>
```

Output

- Cricket
- football
- rugby


```
<ul type="circle">
<li>Cricket</li>
<li>football</li>
<li>rugby</li>
</ul>
```

Output	
○	Cricket
○	football
○	rugby

Definition List

```
<dl>
<dt>CPU</dt>
<dd>Central processing Unit is the brain of the Computer. Central processing Unit is the brain of the
Computer. Central processing Unit is the brain of the Computer. Central processing Unit is the brain of
the Computer. Central processing Unit is the brain of the Computer. Central processing Unit is the
brain of the Computer. </dd>
<dt>CU</dt>
<dd>Control Unit controls all the parts of the computer. Control Unit controls all the parts of the
computer. Control Unit controls all the parts of the computer. Control Unit controls all the parts of the
computer. Control Unit controls all the parts of the computer. </dd>
</dl>
```

Output	
CPU	Central processing Unit is the brain of the Computer. Central processing Unit is the brain of the Computer. Central processing Unit is the brain of the Computer. Central processing Unit is the brain of the Computer. Central processing Unit is the brain of the Computer. Central processing Unit is the brain of the Computer.
CU	Control Unit controls all the parts of the computer. Control Unit controls all the parts of the computer. Control Unit controls all the parts of the computer. Control Unit controls all the parts of the computer. Control Unit controls all the parts of the computer.