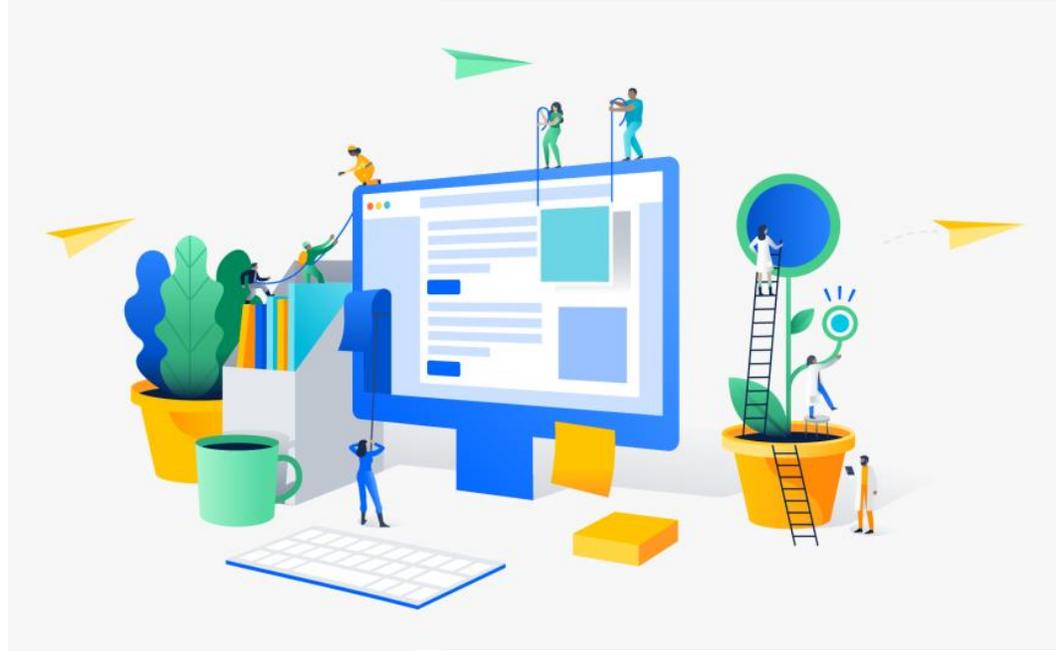


வலை

தளவிருத்தியாக்கம்

Web Development



2019 onwards

New syllabus

Advanced Level

Sri Lankan

Web Development

HTML

- HTML stands for *Hyper Text Markup Language*
- HTML describes the structure of a Web page
- HTML consists of a series of elements
- HTML elements tell the browser how to display the content
- HTML elements are represented by tags
- HTML tags label pieces of content such as "heading", "paragraph", "table", and so on
- Browsers do not display the HTML tags, but use them to render the content of the page

அடிப்படை HTML குறிமுறை - Sample of HTML

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

HTML கட்டமைப்பு விளக்கம் Description of HTML Structure

<Html>
.....
</Html>

} HTML ஆவணத்தை வகைகுறிக்கிறது

<Head>
.....
</Head>

} தலைப்பு விடயங்கள்

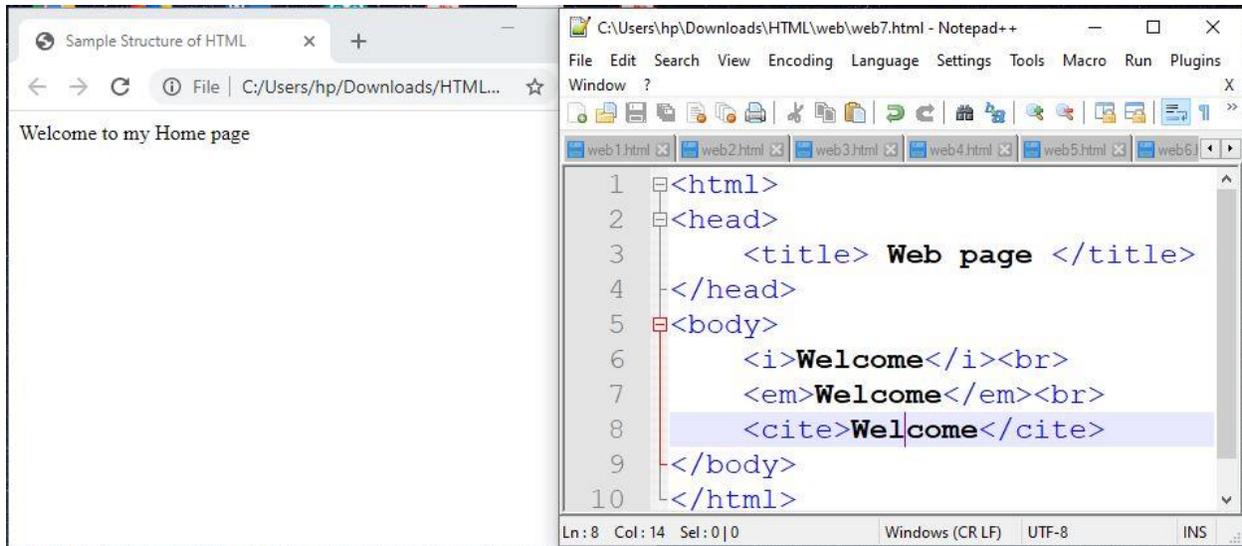
<Title>
.....
</Title>

} தலைப்பு பட்டை தகவல்கள்

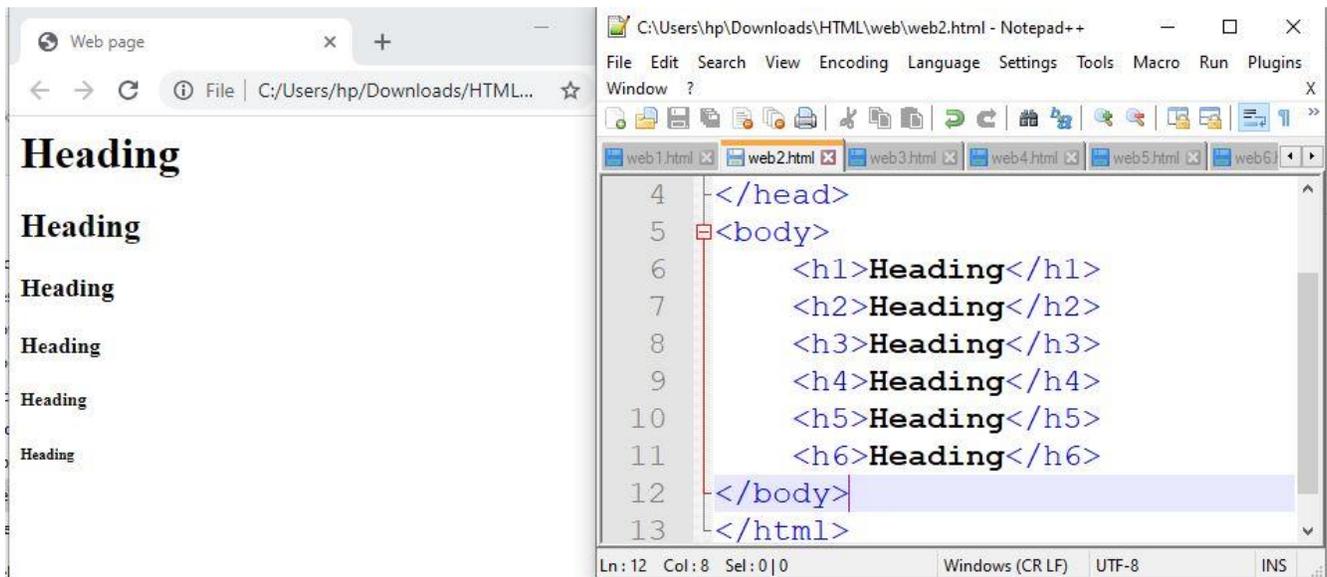
<Body>
.....
</Body>

} பக்க உள்ளடக்கம்

அடிப்படை HTML கட்டமைப்பு Sample Structure of HTML



HTML Heading Tag



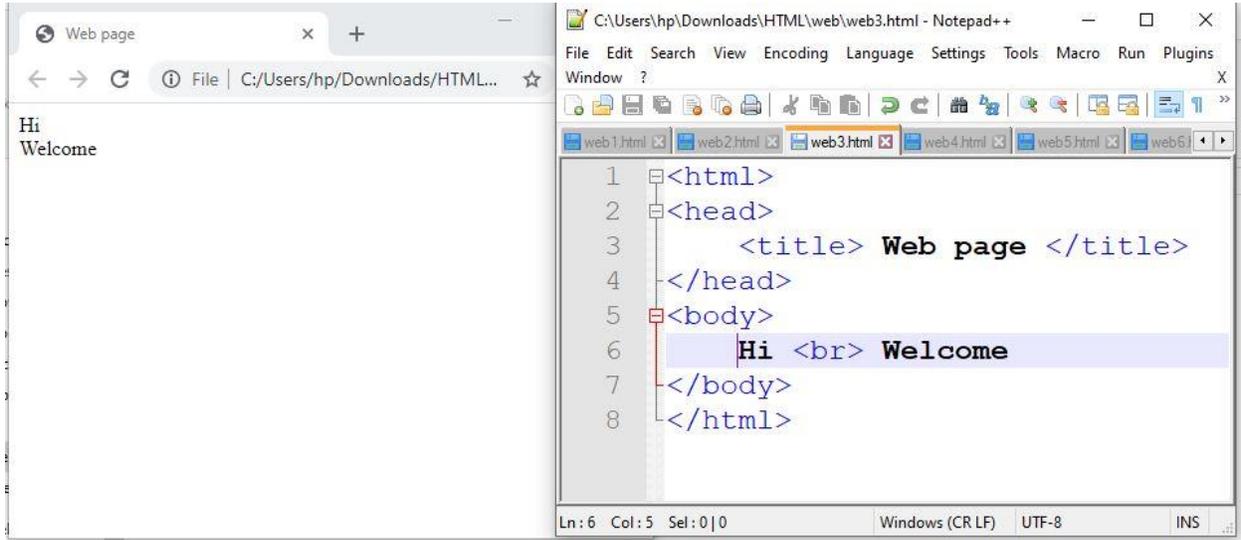
- The <h1> element defines a large heading
- The <h6> element defines a small heading

According to size

<h1> > <h2> > <h3> > <h4> > <h5> > <h6>

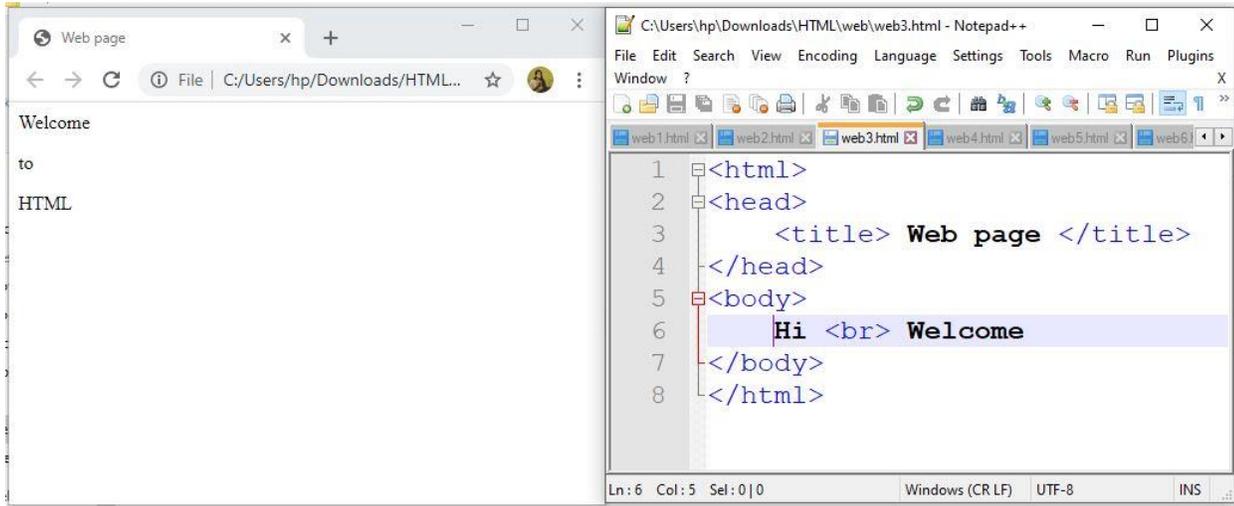
Break ஒட்டு - Break Tag

- வலைப்பக்கத்தின் மீது உள்ள உள்ளடக்கங்களை வேறுபடுத்துகின்றது அல்லது வலைப்பக்கத்தின் மீது உள்ள உள்ளடக்கங்களின் மாற்றங்களை காட்டுகின்றது.



பந்தி ஒட்டு - Paragraph Tag

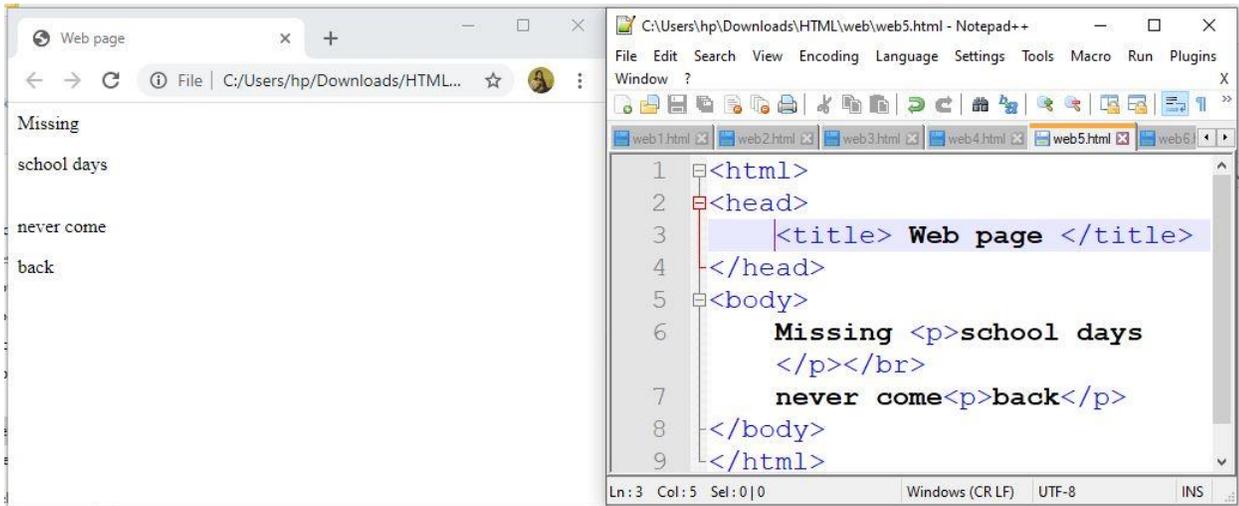
- <p> ஒட்டு பந்தியை விபரிக்கின்றது.
- இது ஆரம்ப மற்றும் இறுதி ஒட்டுக்களை கொண்டிருக்கும் <p>...</p>
- பந்தி ஒன்றினை வரையறுப்பதுடன் பந்தியின் முன்னும் பின்னும் வெள்ளை வெளிகளை (White space / line space) உருவாக்கும்.



The screenshot shows a web browser window on the left displaying the text "Welcome to HTML". On the right, Notepad++ shows the source code for "web3.html". The code is as follows:

```
1 <html>
2 <head>
3   <title> Web page </title>
4 </head>
5 <body>
6   Hi <br> Welcome
7 </body>
8 </html>
```

பந்தி ஓட்டு மற்றும் முறிவு
Paragraph Tag and Break Tag

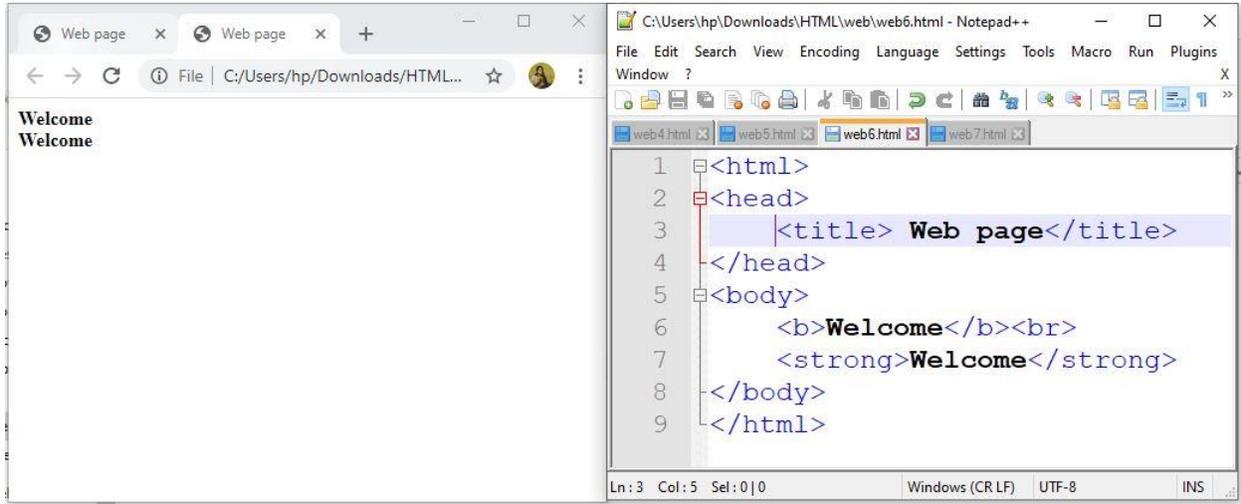


The screenshot shows a web browser window on the left displaying the text "Missing school days never come back". On the right, Notepad++ shows the source code for "web5.html". The code is as follows:

```
1 <html>
2 <head>
3   <title> Web page </title>
4 </head>
5 <body>
6   Missing <p>school days
7   </p><br>
8   never come<p>back</p>
9 </body>
10 </html>
```

Bold Tag

ஒரு எழுத்து உள்ளடக்கத்தில் சிலவற்றை முன்னுரிமைப்படுத்தி காட்ட **** Bold ஒட்டு பயன்படுத்தப்படும்.



The screenshot shows a web browser window on the left displaying the text "Welcome" twice. On the right, the Notepad++ editor shows the following HTML code:

```

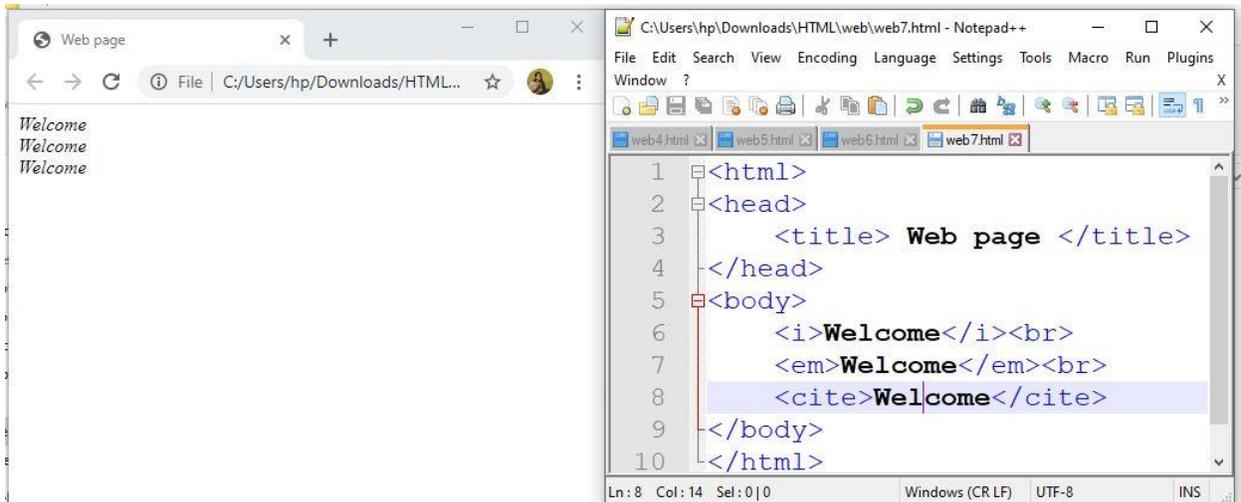
1 <html>
2 <head>
3   <title> Web page</title>
4 </head>
5 <body>
6   <b>Welcome</b><br>
7   <strong>Welcome</strong>
8 </body>
9 </html>

```

The status bar at the bottom of the Notepad++ window indicates "Ln: 3 Col: 5 Sel: 0|0" and "Windows (CR LF) UTF-8 INS".

Italic Tag

- ஒரு எழுத்து உள்ளடக்கத்தில் சாய்வான எழுத்துக்களை அமைக்க Italic ஒட்டு பயன்படும்.



The screenshot shows a web browser window on the left displaying the text "Welcome" three times. On the right, the Notepad++ editor shows the following HTML code:

```

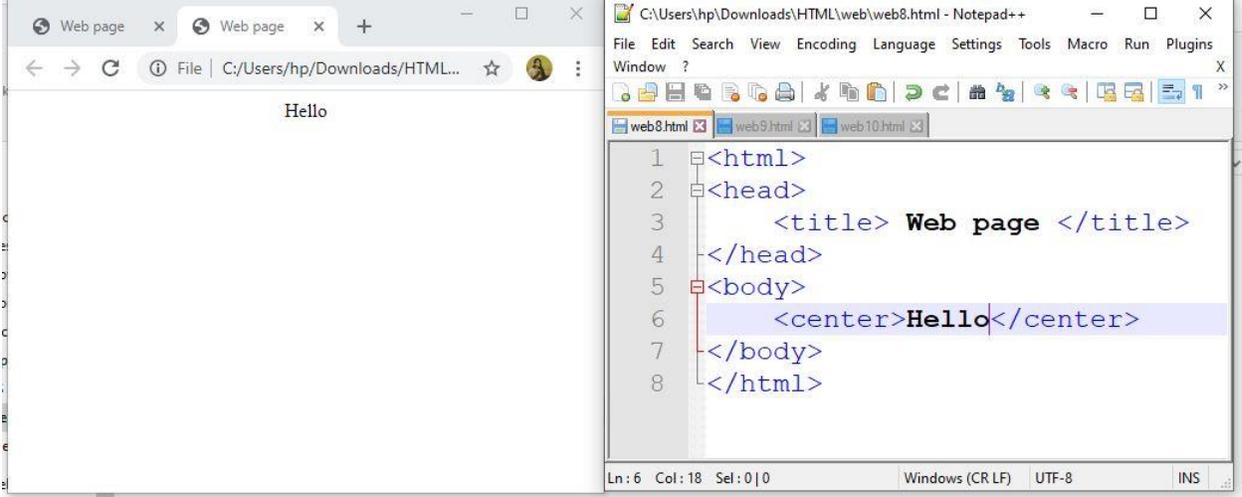
1 <html>
2 <head>
3   <title> Web page </title>
4 </head>
5 <body>
6   <i>Welcome</i><br>
7   <em>Welcome</em><br>
8   <cite>Welcome</cite>
9 </body>
10 </html>

```

The status bar at the bottom of the Notepad++ window indicates "Ln: 8 Col: 14 Sel: 0|0" and "Windows (CR LF) UTF-8 INS".

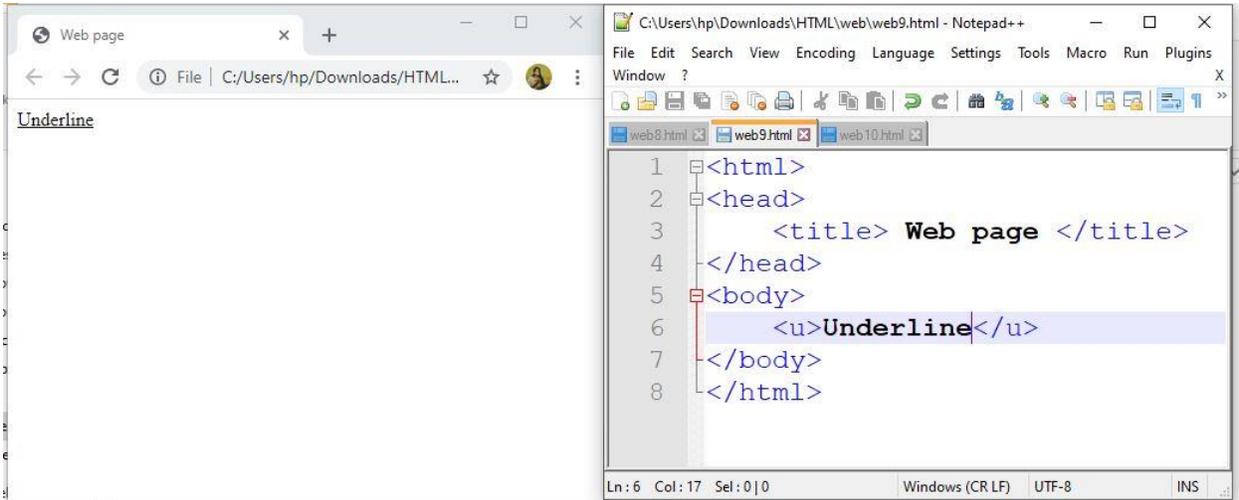
Center Tag

- உள்ளடக்கத்தை மத்தியில் அமைக்க இந்த ஒட்டு பயன்படும்.

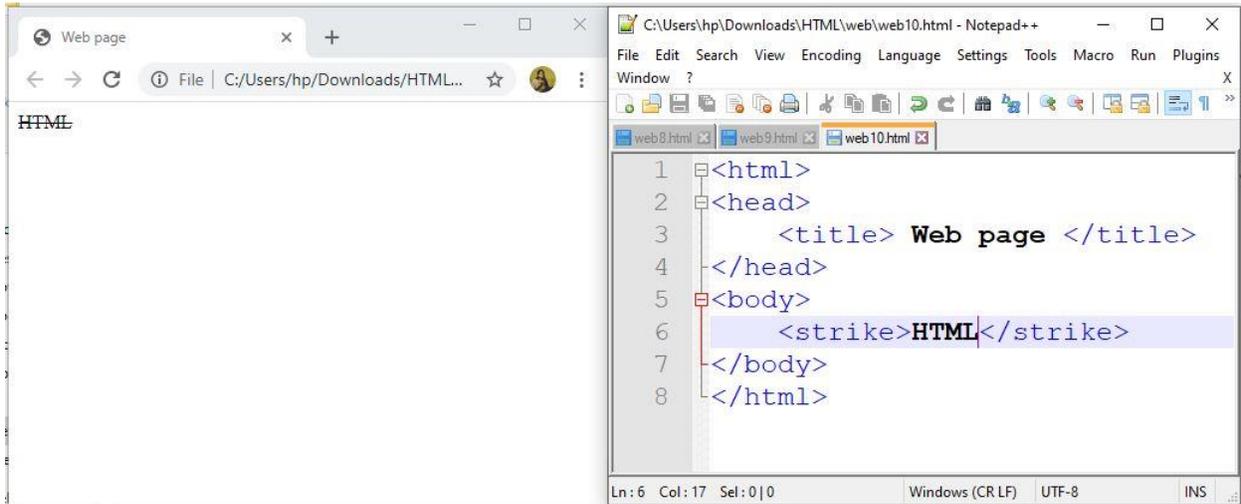


Underline Tag

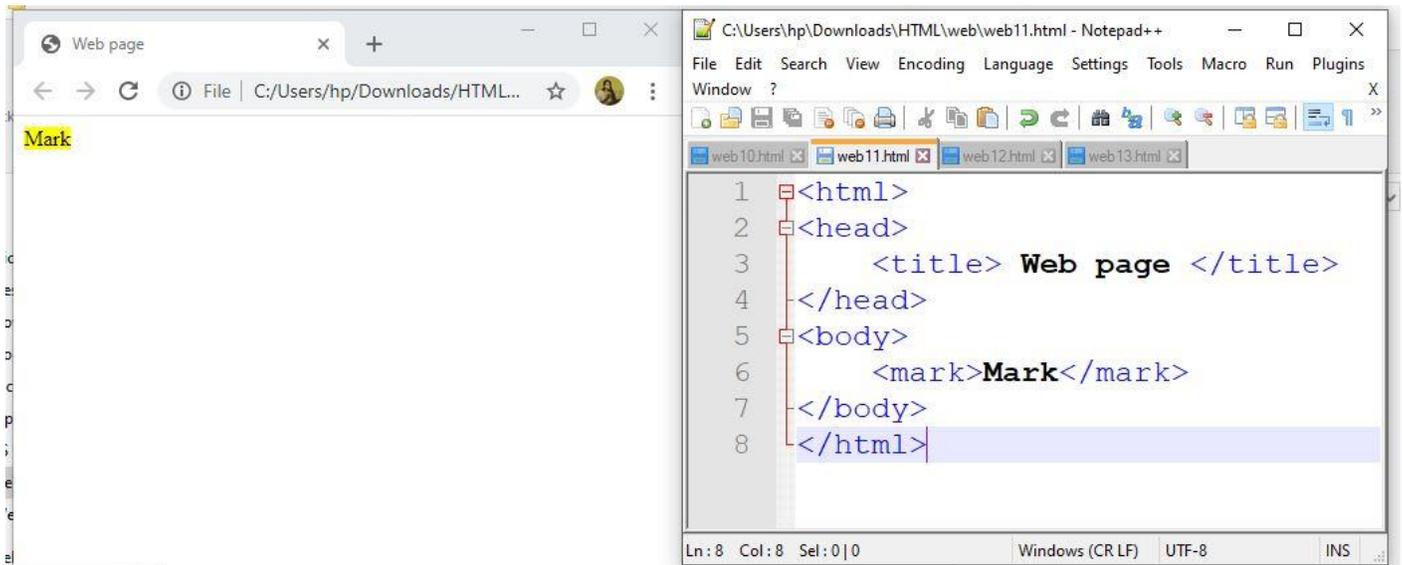
- எழுத்து உள்ளடக்கத்திற்கு அடிக்கோடிட இவ் ஒட்டு பயன்படும்.



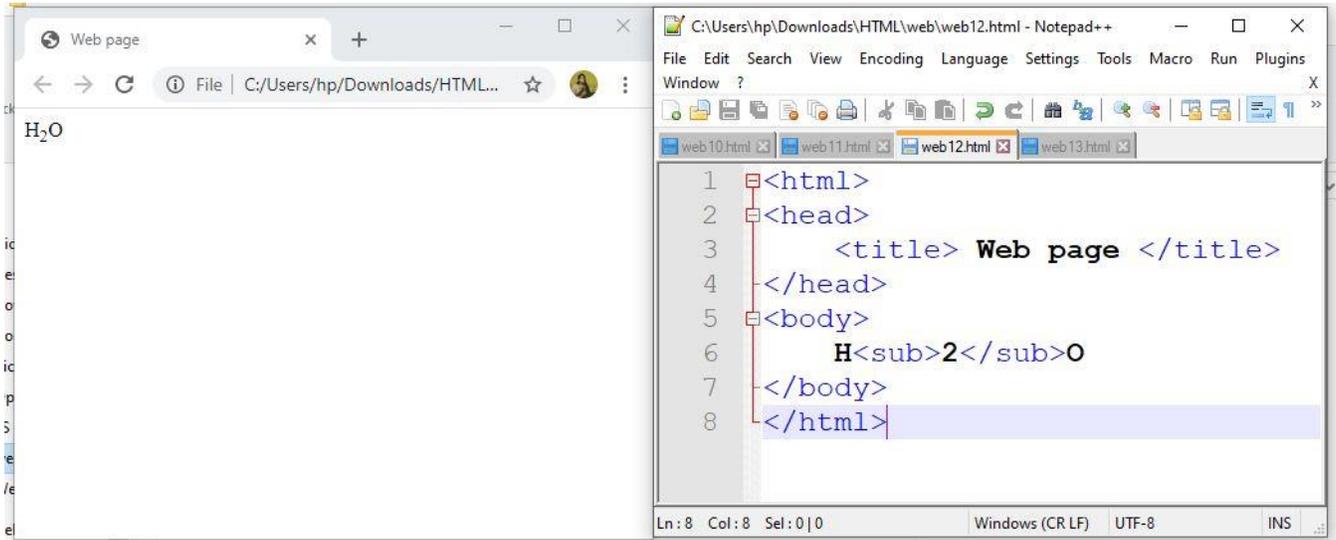
Strike Tag



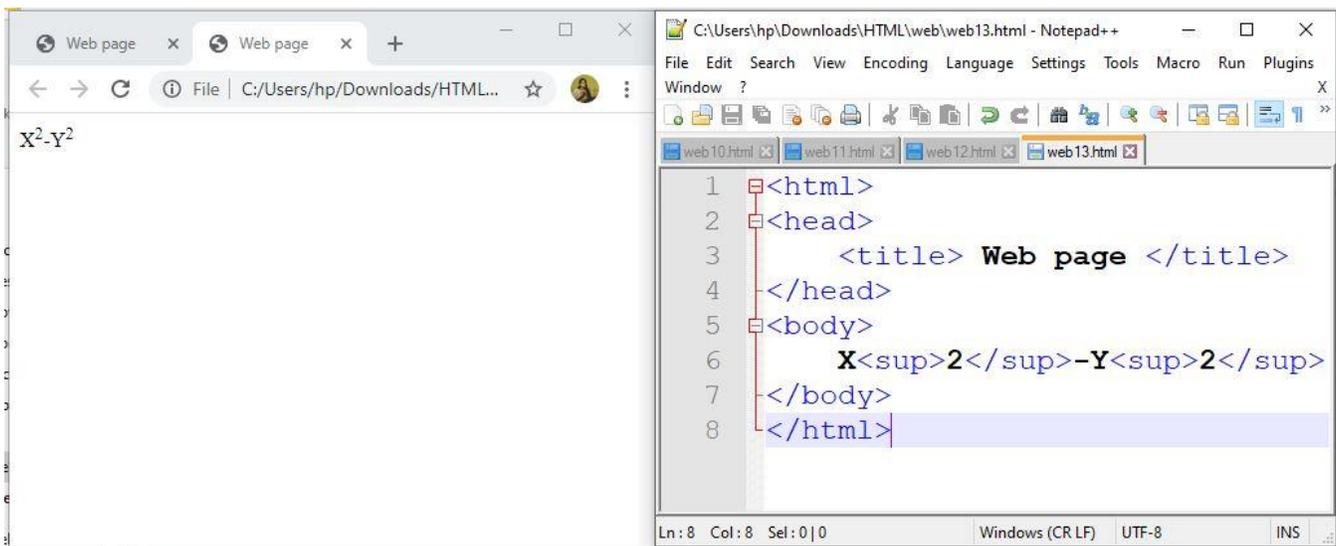
Mark Tag



Subscript Tag



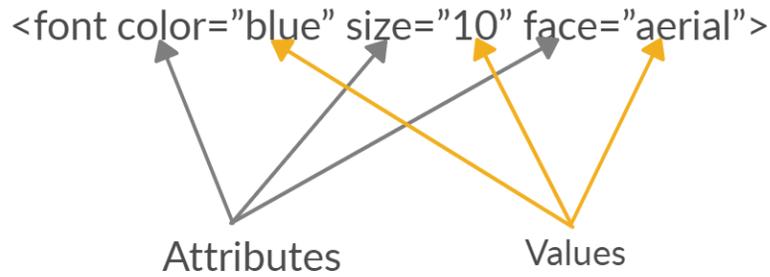
Superscript Tag



Attributes

- அடையாள ஒட்டு ஒன்றினது மேலதிக தகவல்கள் அதன் பண்புகள் ஆகும்.

Example:



```

1 <html>
2 <head>
3   <title> Web page </title>
4 </head>
5 <body>
6   <font color="blue" size="10" face="arial">
7     Blue Arial Font
8   </font>
9 </body>
10 </html>

```

Hyf length : 150 lines : 10 Ln : 10 Col : 8 Sel : 0 | 0 Windows (CR LF) UTF-8 INS

Opening and Closing Tag order

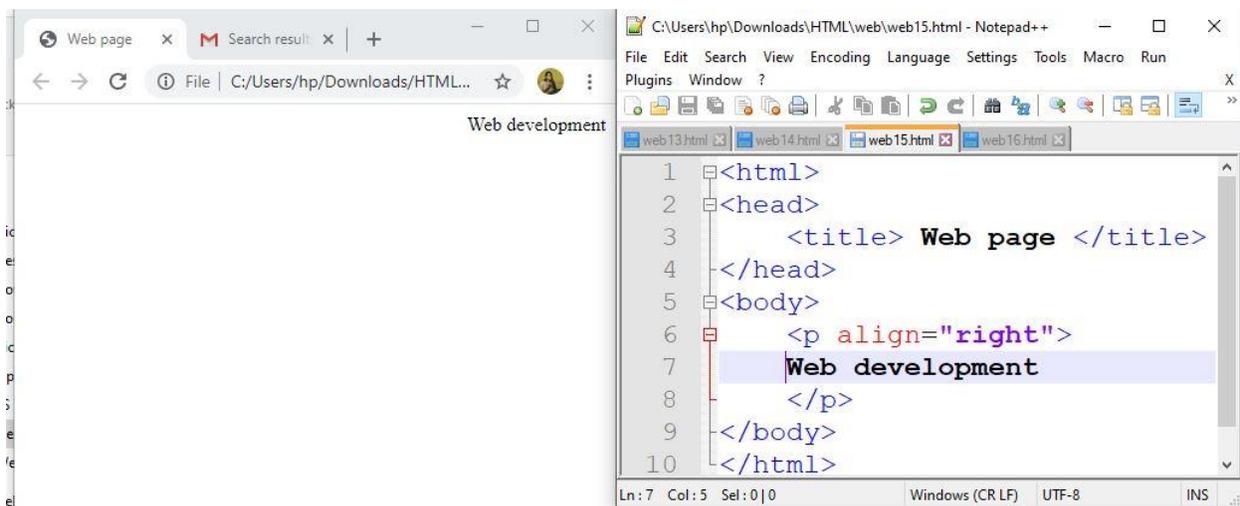
```
<b>  
  <u>  
    <i>  
      Welcome  
    </i>  
  </u>  
</b>
```

Alignment

- Align tag is used to align the paragraph, tables, images and objects

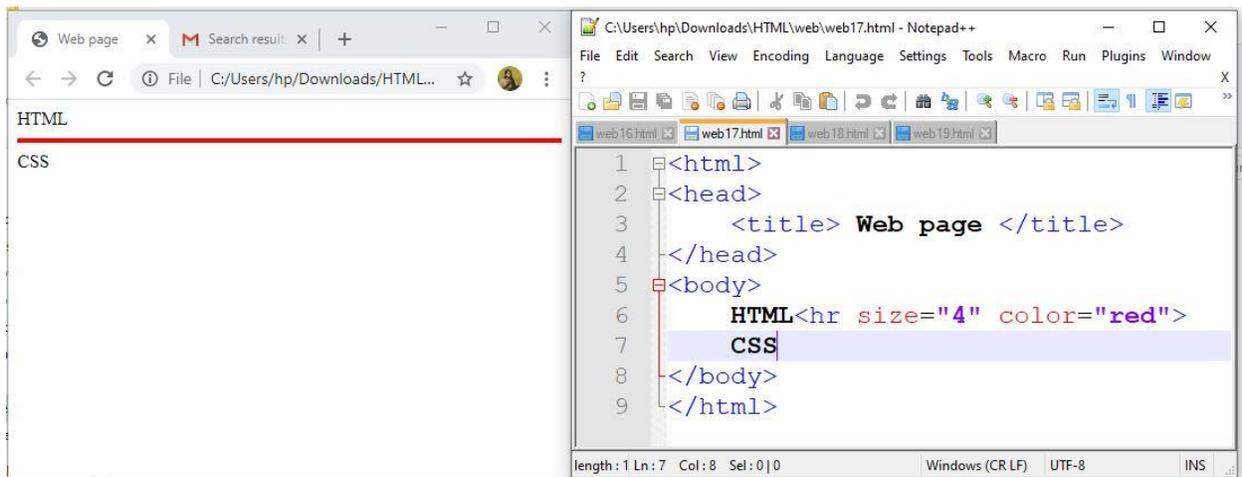
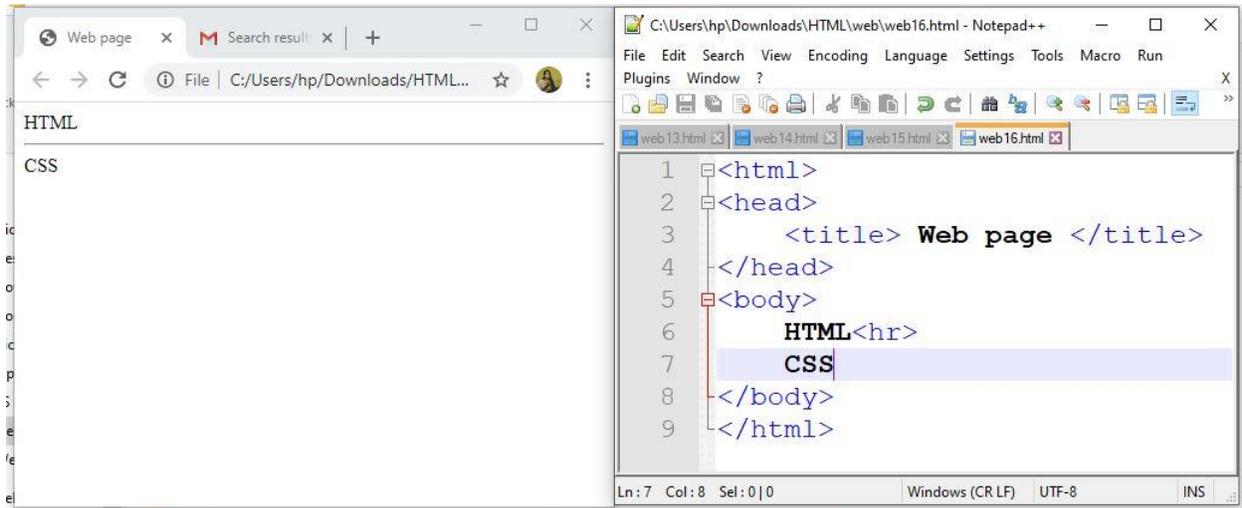
```
<p align="right"> welcome </p>
```

- We can use right, left, center and justify to align the paragraph.



Horizontal Rule

- The `<hr>` tag defines a thematic break in an HTML page (e.g. a shift of topic).
- வலைப்பக்கத்தின் மீது உள்ள உள்ளடக்கங்களை வேறுபடுத்துகின்றது. அல்லது வலைப்பக்கத்தின் மீது உள்ள உள்ளடக்கங்களின் மாற்றங்களை காட்டுகின்றது.



Moving Text

- `<marquee>` tag gives the movement to the text
- Right to left is the default movement
 - `<marquee direction="right"> hello </marquee>`
- We can use *right*, *left*, *up* and *down* for the movement
- Scrollamount is another attribute defines the speed of the moving text

Example:

```
<marquee scrollamount="20"> welcome </marquee>
```

List

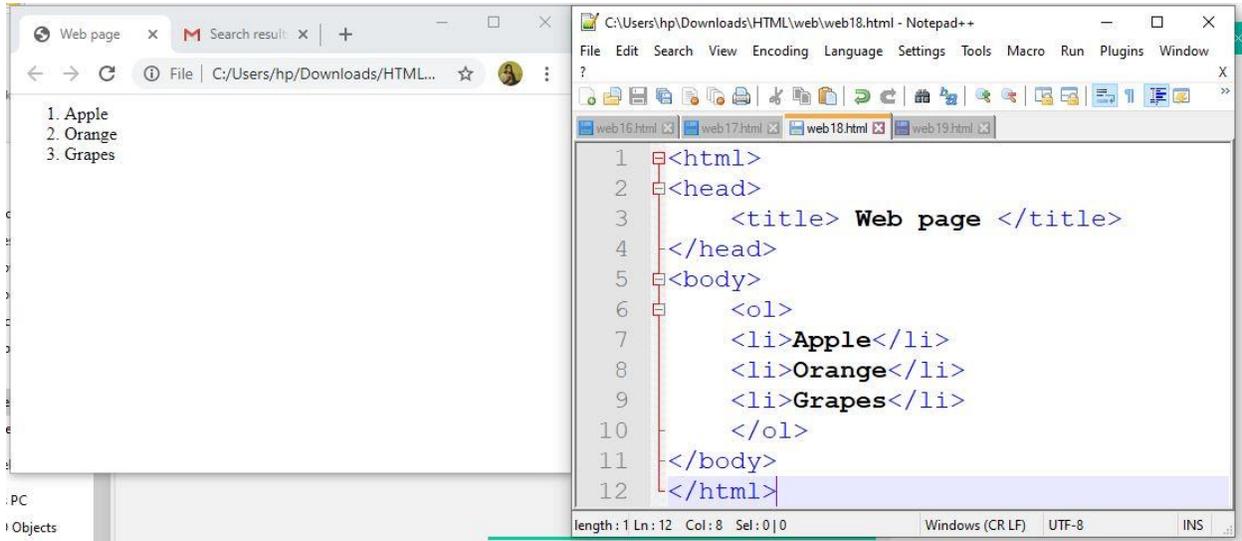
- List can be categorized into 3 types
 1. Ordered list
 2. Unordered list
 3. Definition list

❖ Ordered List

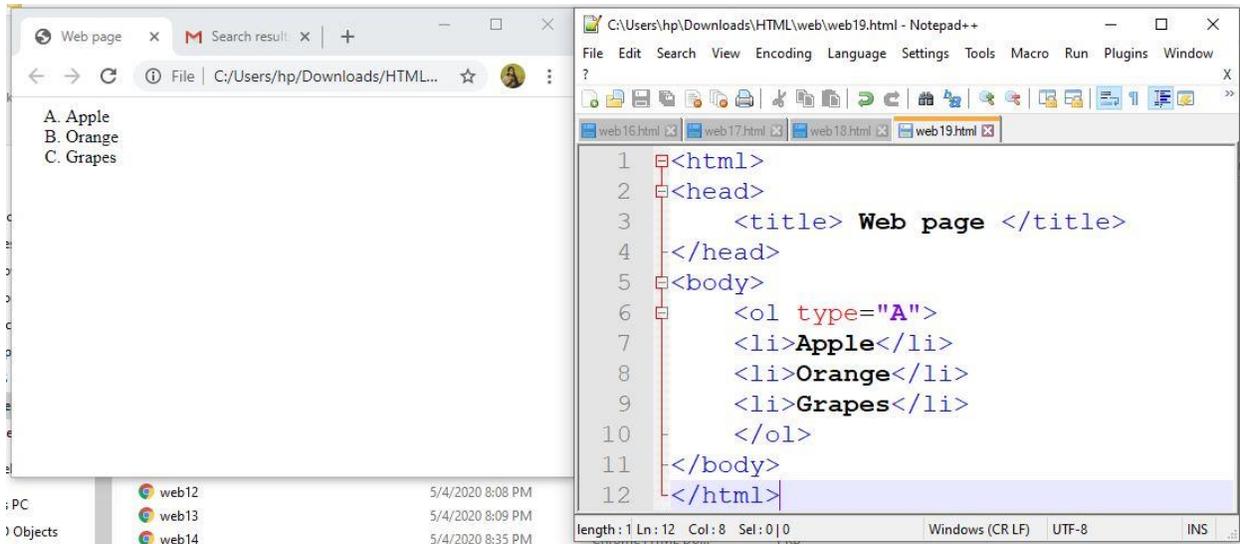
- An ordered list starts with the `` tag.
- Each list item starts with the `` tag.
- Numberings will appear default

Type	Description
<code>type="1"</code>	The list items will be numbered with numbers (default)
<code>type="A"</code>	The list items will be numbered with uppercase letters
<code>type="a"</code>	The list items will be numbered with lowercase letters

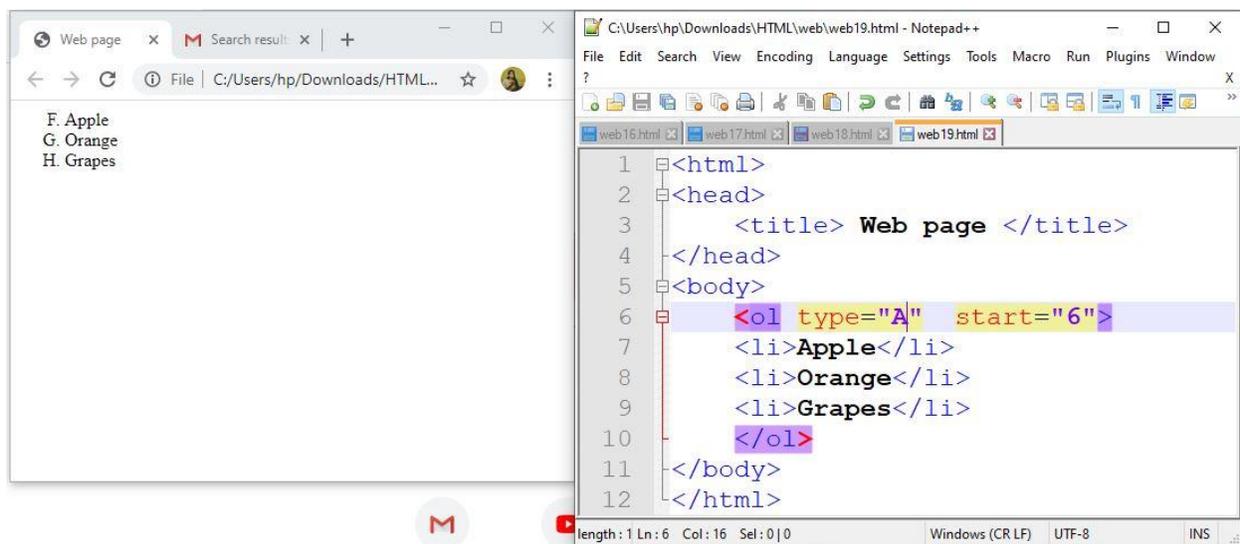
<code>type="I"</code>	The list items will be numbered with uppercase roman numbers
<code>type="i"</code>	The list items will be numbered with lowercase roman numbers



- We can change the Pattern



- When we have an idea to start the order from "F"



▪ Nested Ordered List

```

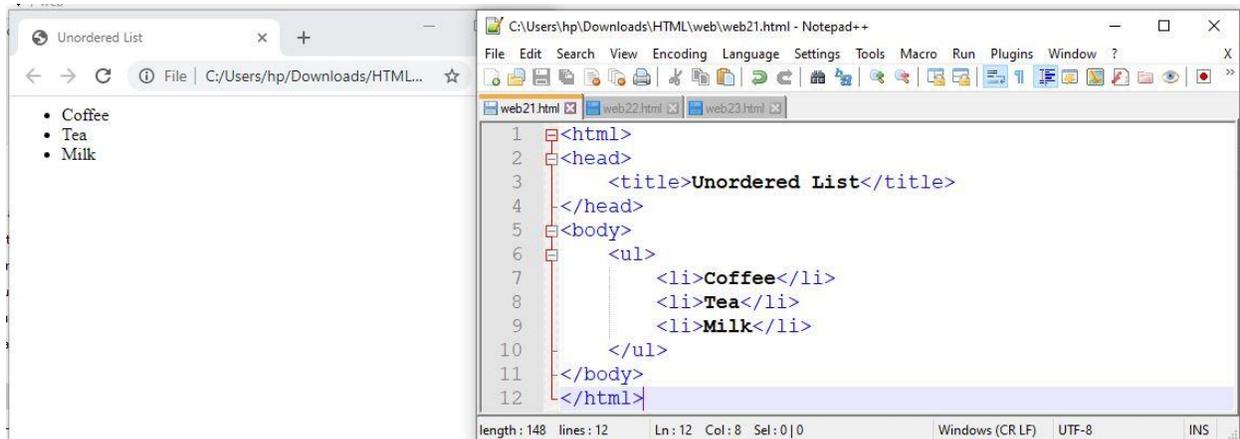
1 <html>
2 <head>
3   <title> Web page </title>
4 </head>
5 <body>
6   <ol>
7     <li>Fruits</li>
8     <ol type="A">
9       <li>Orange</li>
10      <li>Grapes</li>
11    </ol>
12    <li>Flowers</li>
13    <ol type="i">
14      <li>Rose</li>
15      <ol type="I">
16        <li>Red Rose</li>
17        <li>Yellow Rose</li>
18      </ol>
19      <li>Jasmin</li>
20    </ol>
21  </ol>
22 </body>
23 </html>

```

• Unordered List

- An unordered list starts with the `` tag. Each list item starts with the `` tag. Unordered list takes disc type as the default
- We can use square, disc and circle

Type	Description
disc	Sets the list item marker to a bullet (default)
circle	Sets the list item marker to a circle
square	Sets the list item marker to a square

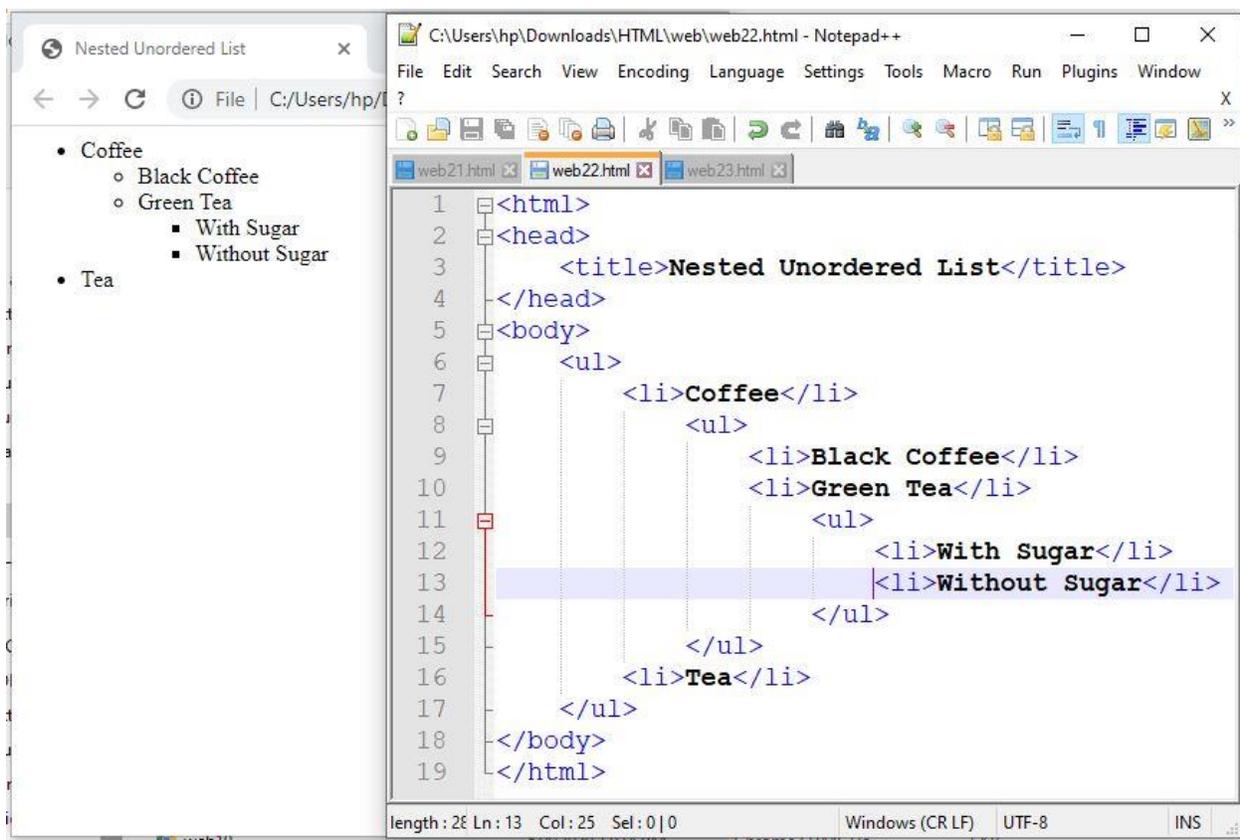


The screenshot shows a web browser window on the left displaying an unordered list with three items: Coffee, Tea, and Milk. On the right, the Notepad++ editor shows the corresponding HTML code for 'web21.html'.

```
1 <html>
2 <head>
3   <title>Unordered List</title>
4 </head>
5 <body>
6   <ul>
7     <li>Coffee</li>
8     <li>Tea</li>
9     <li>Milk</li>
10  </ul>
11 </body>
12 </html>
```

length: 148 lines: 12 Ln: 12 Col: 8 Sel: 0|0 Windows (CR LF) UTF-8 INS

• Nested Unordered List



The screenshot shows a web browser window on the left displaying a nested unordered list. The list structure is: Coffee (with sub-items Black Coffee and Green Tea), and Tea. Green Tea has sub-items With Sugar and Without Sugar. On the right, the Notepad++ editor shows the corresponding HTML code for 'web22.html'.

```
1 <html>
2 <head>
3   <title>Nested Unordered List</title>
4 </head>
5 <body>
6   <ul>
7     <li>Coffee</li>
8     <ul>
9       <li>Black Coffee</li>
10      <li>Green Tea</li>
11      <ul>
12        <li>With Sugar</li>
13        <li>Without Sugar</li>
14      </ul>
15    </ul>
16    <li>Tea</li>
17  </ul>
18 </body>
19 </html>
```

length: 28 Ln: 13 Col: 25 Sel: 0|0 Windows (CR LF) UTF-8 INS

Definition List

- A description list is a list of terms, with a description of each term.
- The **<dl>** tag defines the description list, the **<dt>** tag defines the term (name), and the **<dd>** tag describes each term:

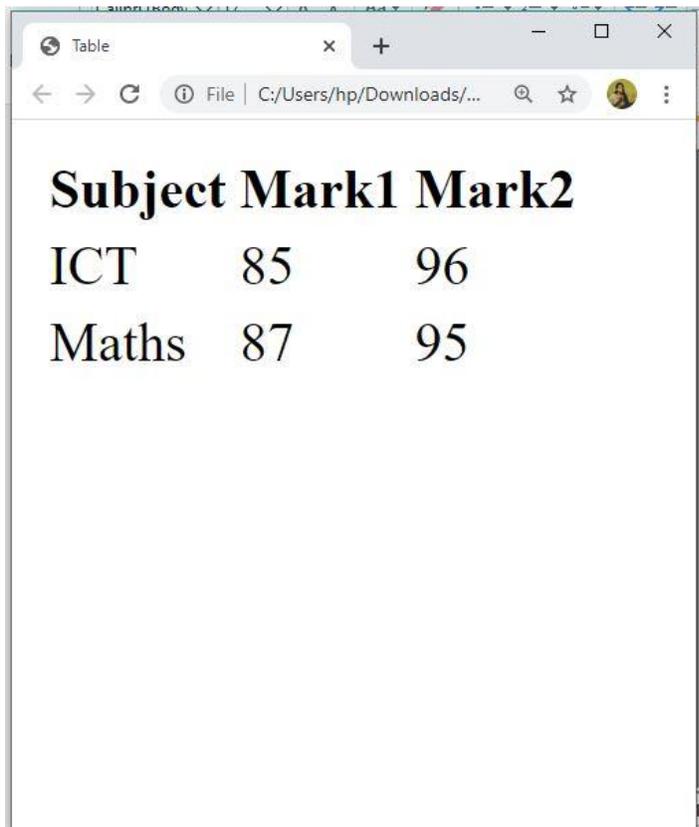
```

1 <html>
2 <head>
3   <title>Definition List
4   </title>
5 </head>
6 <body>
7   <dl>
8     <dt>Teacher</dt>
9     <dd>works at school</dd>
10    <dt>Farmer</dt>
11    <dd>works at field</dd>
12  </dl>
13 </body>
14 </html>

```

Table

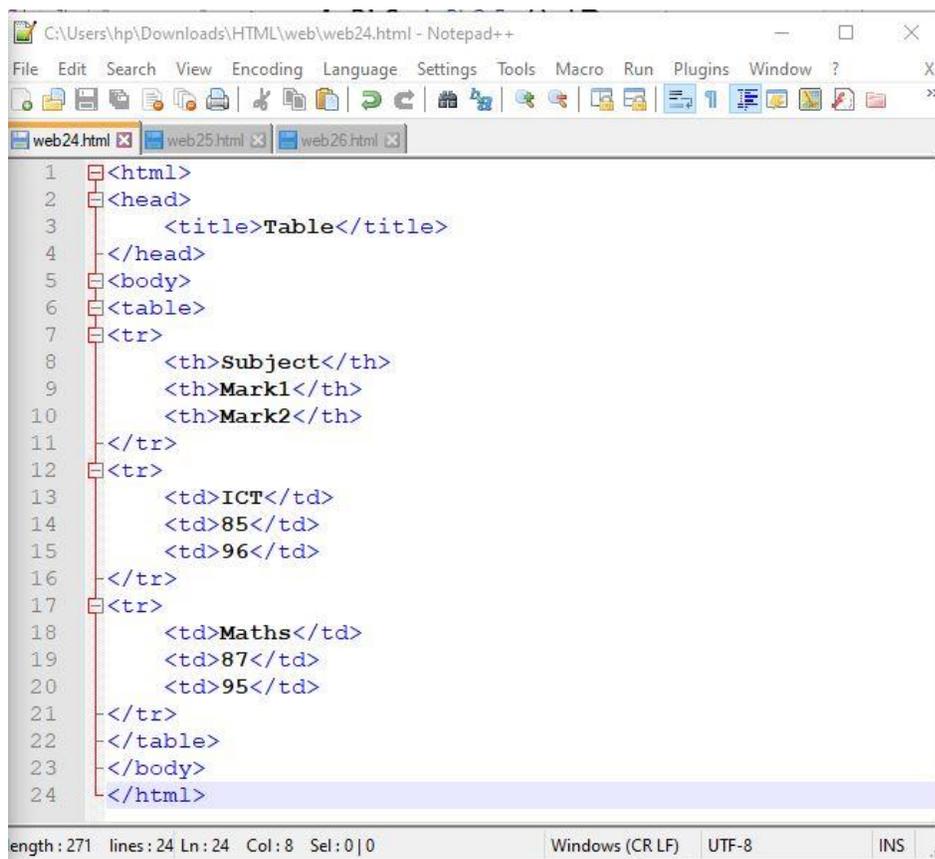
- An HTML table is defined with the **<table>** tag.
- Each table row is defined with the **<tr>** tag.
- A table header is defined with the **<th>** tag. By default, table headings are bold and centered.
- A table data/cell is defined with the **<td>** tag.



A screenshot of a web browser window titled "Table". The address bar shows the file path "C:/Users/hp/Downloads/...". The browser displays a table with the following content:

Subject	Mark1	Mark2
ICT	85	96
Maths	87	95

How to create
this table?

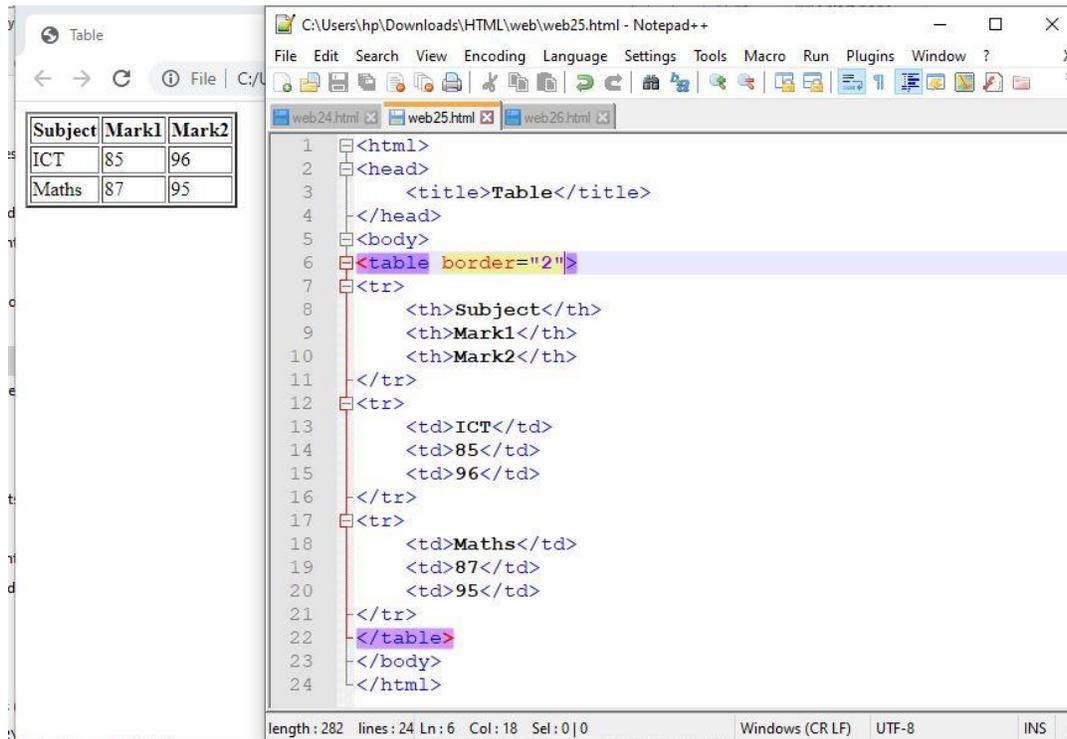


A screenshot of Notepad++ showing the HTML code for the table. The code is as follows:

```
1 <html>
2 <head>
3   <title>Table</title>
4 </head>
5 <body>
6 <table>
7 <tr>
8   <th>Subject</th>
9   <th>Mark1</th>
10  <th>Mark2</th>
11 </tr>
12 <tr>
13   <td>ICT</td>
14   <td>85</td>
15   <td>96</td>
16 </tr>
17 <tr>
18   <td>Maths</td>
19   <td>87</td>
20   <td>95</td>
21 </tr>
22 </table>
23 </body>
24 </html>
```

length : 271 lines : 24 Ln : 24 Col : 8 Sel : 0 | 0 Windows (CR LF) UTF-8 INS

- When we give border as attribute



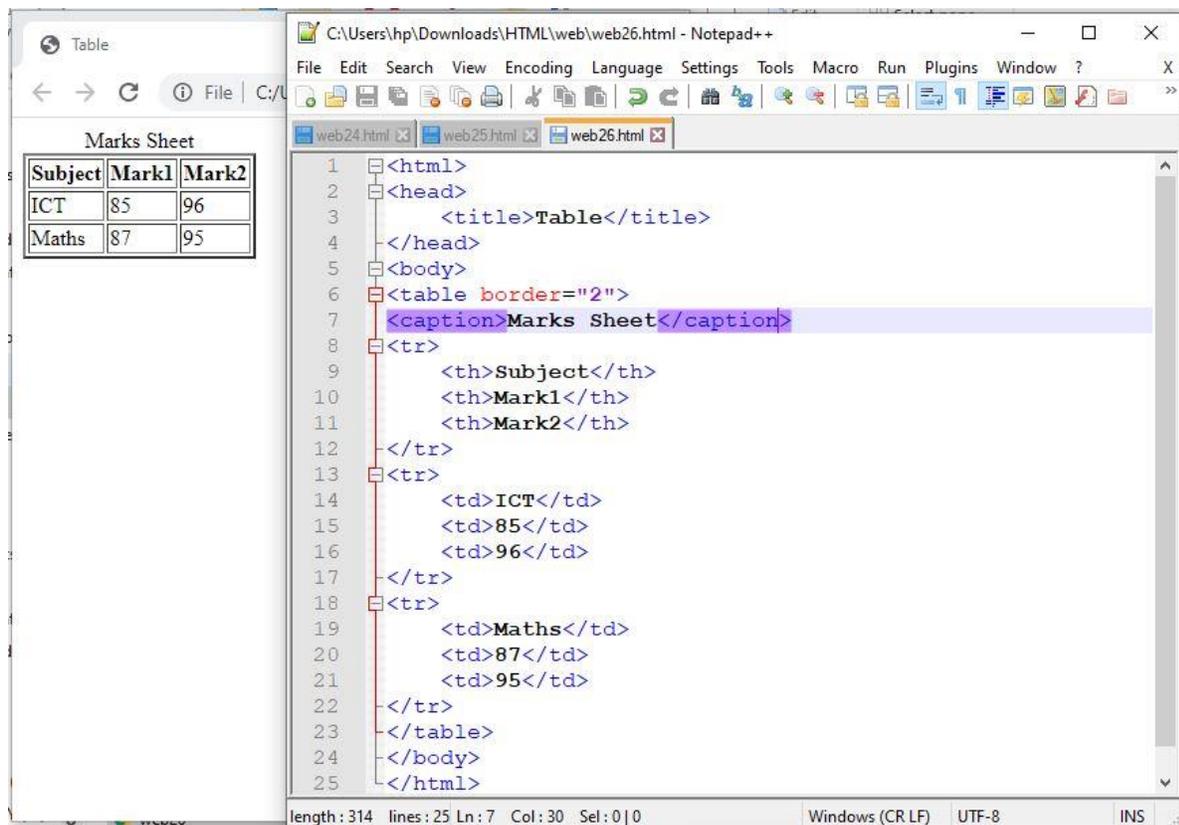
The screenshot shows a Notepad++ window with the file path C:\Users\hp\Downloads\HTML\web\web25.html. The code is as follows:

```
1 <html>
2 <head>
3   <title>Table</title>
4 </head>
5 <body>
6 <table border="2">
7 <tr>
8   <th>Subject</th>
9   <th>Mark1</th>
10  <th>Mark2</th>
11 </tr>
12 <tr>
13   <td>ICT</td>
14   <td>85</td>
15   <td>96</td>
16 </tr>
17 <tr>
18   <td>Maths</td>
19   <td>87</td>
20   <td>95</td>
21 </tr>
22 </table>
23 </body>
24 </html>
```

The status bar at the bottom indicates: length: 282 lines: 24 Ln: 6 Col: 18 Sel: 0|0 Windows (CR LF) UTF-8 INS

How to add title to table?

- <caption> tag defines the title



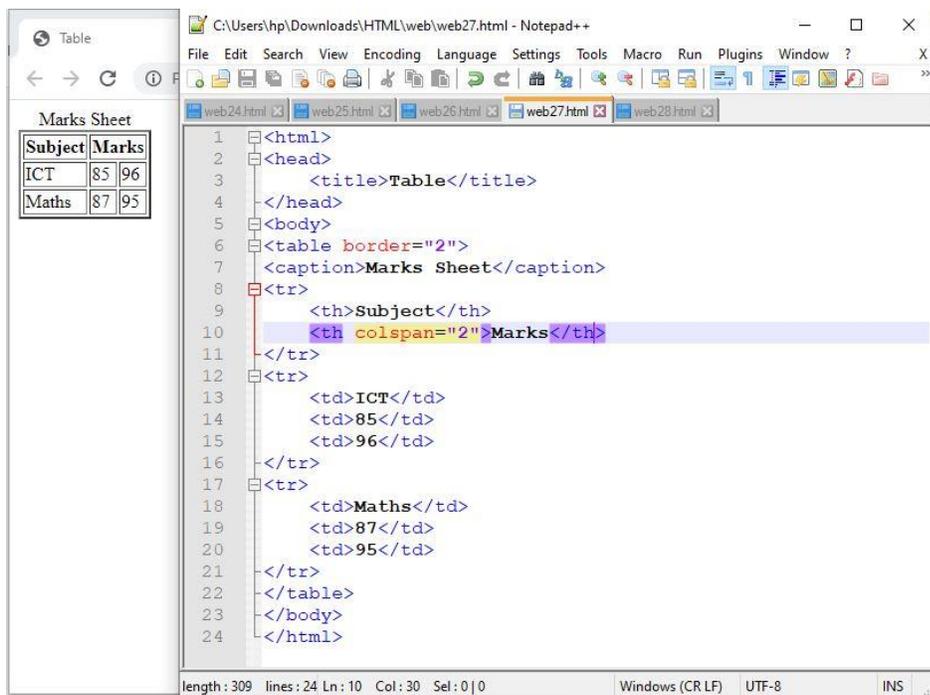
The screenshot shows a Notepad++ window with the file path C:\Users\hp\Downloads\HTML\web\web26.html. The code is as follows:

```
1 <html>
2 <head>
3   <title>Table</title>
4 </head>
5 <body>
6 <table border="2">
7   <caption>Marks Sheet</caption>
8 <tr>
9   <th>Subject</th>
10  <th>Mark1</th>
11  <th>Mark2</th>
12 </tr>
13 <tr>
14   <td>ICT</td>
15   <td>85</td>
16   <td>96</td>
17 </tr>
18 <tr>
19   <td>Maths</td>
20   <td>87</td>
21   <td>95</td>
22 </tr>
23 </table>
24 </body>
25 </html>
```

The status bar at the bottom indicates: length: 314 lines: 25 Ln: 7 Col: 30 Sel: 0|0 Windows (CR LF) UTF-8 INS

Colspan

How to make this below table?



The screenshot shows a Notepad++ window with the following HTML code:

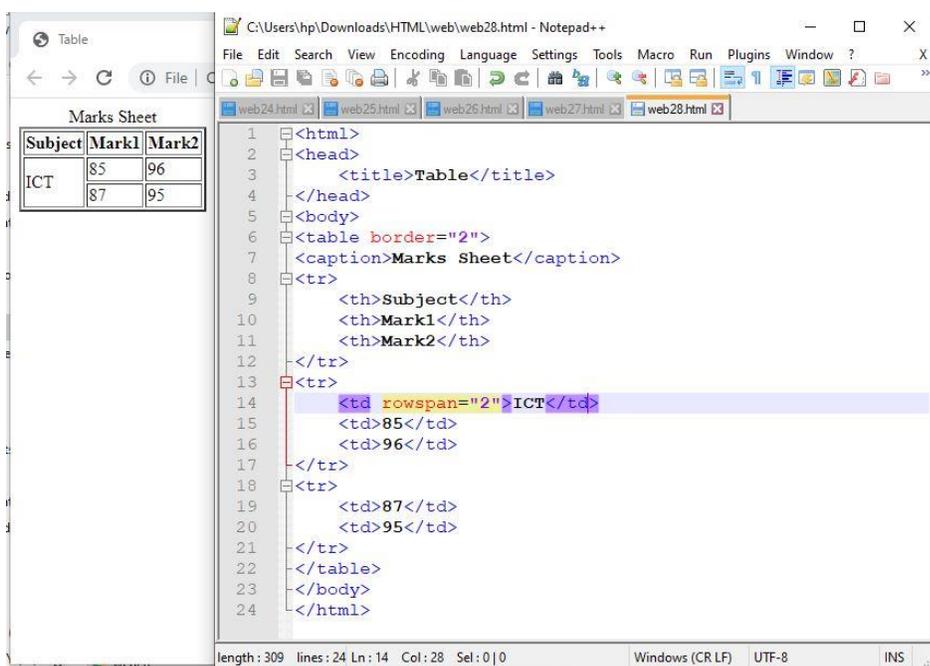
```
1 <html>
2 <head>
3   <title>Table</title>
4 </head>
5 <body>
6   <table border="2">
7     <caption>Marks Sheet</caption>
8     <tr>
9       <th>Subject</th>
10      <th colspan="2">Marks</th>
11    </tr>
12    <tr>
13      <td>ICT</td>
14      <td>85</td>
15      <td>96</td>
16    </tr>
17    <tr>
18      <td>Maths</td>
19      <td>87</td>
20      <td>95</td>
21    </tr>
22  </table>
23 </body>
24 </html>
```

The table rendered in the preview window is:

Subject	Marks	
ICT	85	96
Maths	87	95

Rowspan

How to make this below table?



The screenshot shows a Notepad++ window with the following HTML code:

```
1 <html>
2 <head>
3   <title>Table</title>
4 </head>
5 <body>
6   <table border="2">
7     <caption>Marks Sheet</caption>
8     <tr>
9       <th>Subject</th>
10      <th>Mark1</th>
11      <th>Mark2</th>
12    </tr>
13    <tr>
14      <td rowspan="2">ICT</td>
15      <td>85</td>
16      <td>96</td>
17    </tr>
18    <tr>
19      <td>87</td>
20      <td>95</td>
21    </tr>
22  </table>
23 </body>
24 </html>
```

The table rendered in the preview window is:

Subject	Mark1	Mark2
ICT	85	96
	87	95

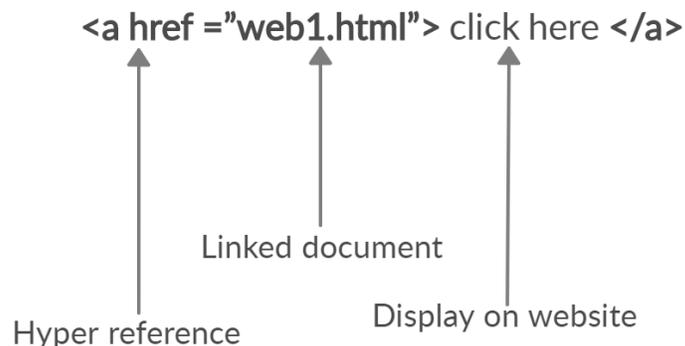
Image

- In HTML, images are defined with the **** tag.
- The **** tag is empty, it contains attributes only, and does not have a closing tag.
- The src attribute specifies the URL (web address) of the image:
- The alt attribute provides an alternate text for an image, if the user for some reason cannot view it (because of slow connection, an error in the src attribute, or if the user uses a screen reader).

Hyperlink

Hyperlink is an element in an html document that links to either another portion of the document or to another document altogether

Example :



❖ Anchor tag

(when we click the “link” displayed on the web page, “web7.html” will open in another web page)

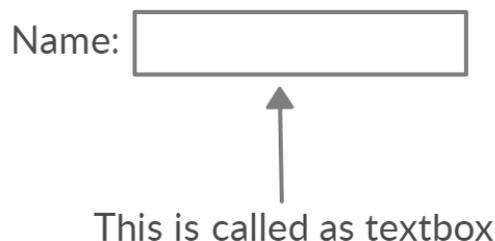
❖ Image Hyperlink

```
<a href =”web1.html”> <img src =”rose.jpg”> </a>
```

(rose.jpg image will display on the web page, when click the image “web1.html” webpage will open in the same web site)

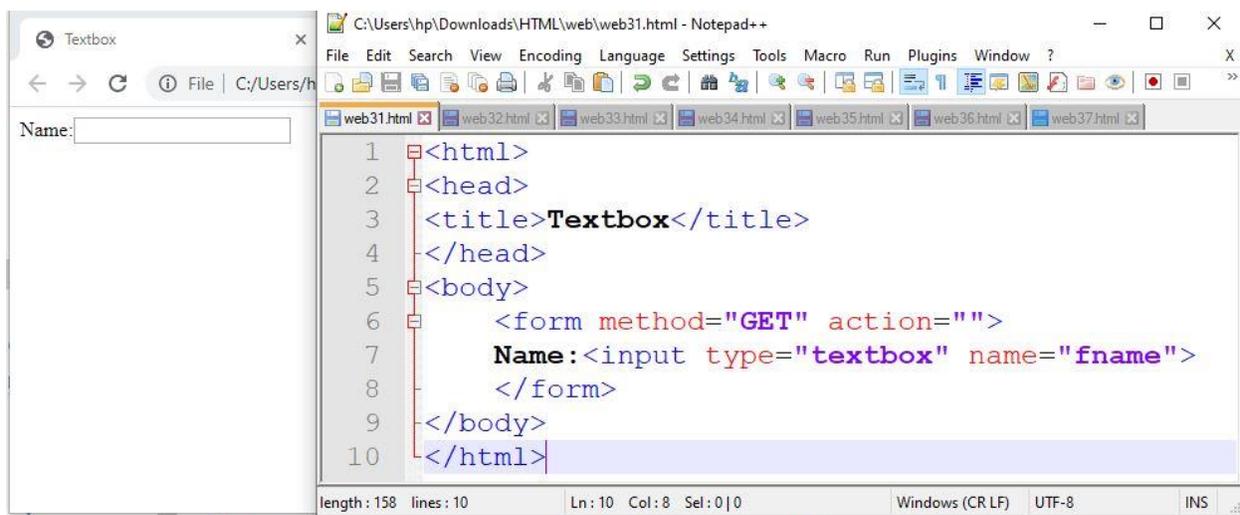
Forms

❖ Text box

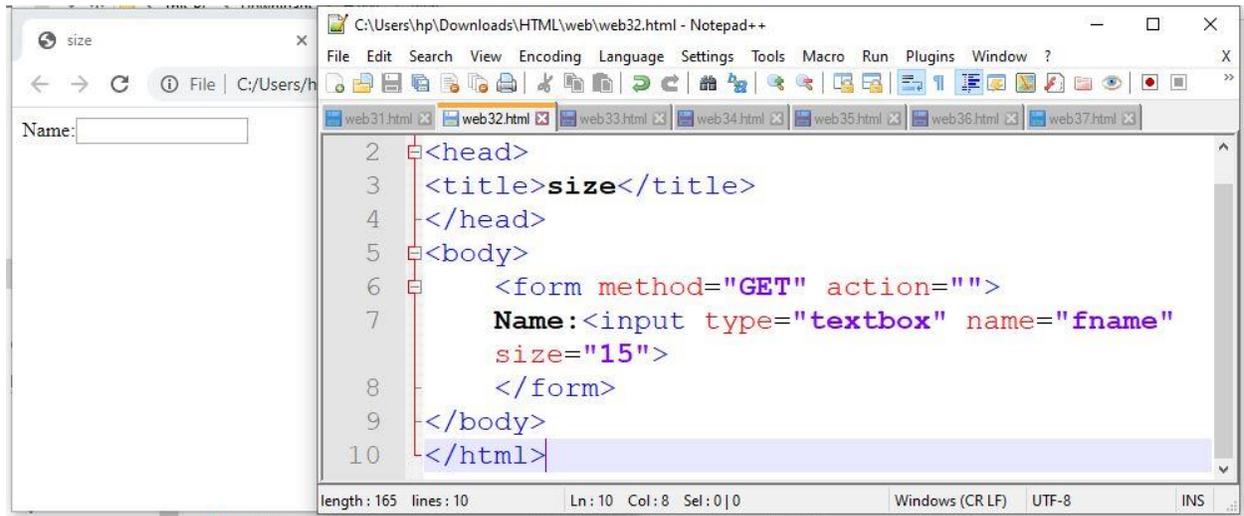


Further we can use some attributes

1.



2.

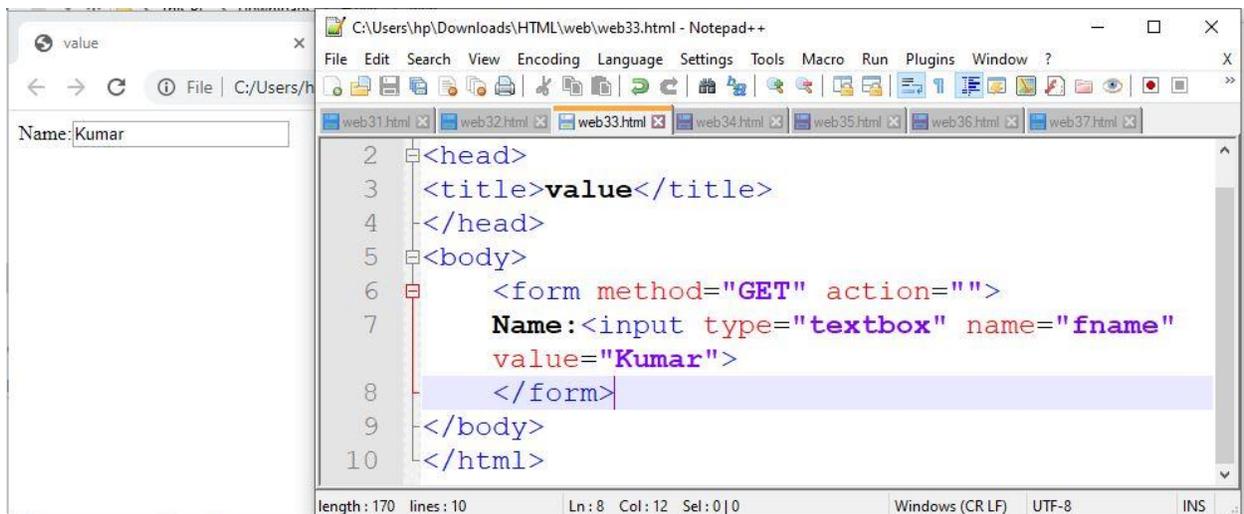


The screenshot shows a web browser window on the left with the URL 'size' and a text input field labeled 'Name:'. The browser displays the rendered form. On the right, Notepad++ shows the source HTML code for 'web32.html'. The code is as follows:

```
2 <head>
3 <title>size</title>
4 </head>
5 <body>
6 <form method="GET" action="">
7   Name:<input type="textbox" name="fname"
8     size="15">
9 </form>
10 </body>
</html>
```

Size = பாடப்பெட்டியினுள் காட்சிப்படுத்தக்கூடிய அதிகூடிய வரியுருக்களின் எண்ணிக்கை.

3.



The screenshot shows a web browser window on the left with the URL 'value' and a text input field labeled 'Name:Kumar'. The browser displays the rendered form with the value 'Kumar' entered. On the right, Notepad++ shows the source HTML code for 'web33.html'. The code is as follows:

```
2 <head>
3 <title>value</title>
4 </head>
5 <body>
6 <form method="GET" action="">
7   Name:<input type="textbox" name="fname"
8     value="Kumar">
9 </form>
10 </body>
</html>
```

“Value” gives an idea to the user

4.

The screenshot shows a web browser window with the URL 'maxlength' and a text input field labeled 'Name:'. The Notepad++ window displays the following HTML code:

```

1 <html>
2 <head>
3 <title>maxlength</title>
4 </head>
5 <body>
6 <form method="GET" action="">
7   Name:<input type="text" name="fname"
8     maxlength="5">
9 </form>
10 </body>

```

The status bar at the bottom indicates 'length: 174 lines: 10 Ln: 8 Col: 12 Sel: 0|0 Windows (CR LF) UTF-8 INS'.

Maxlength = பாடப்பெட்டியினுள் உள்ளீடு செய்யக்கூடிய உயர்ந்தபட்ச வரியுருக்களின் எண்ணிக்கை.

❖ Password

The screenshot shows a web browser window with the URL 'Password' and a password input field labeled 'Password:'. The Notepad++ window displays the following HTML code:

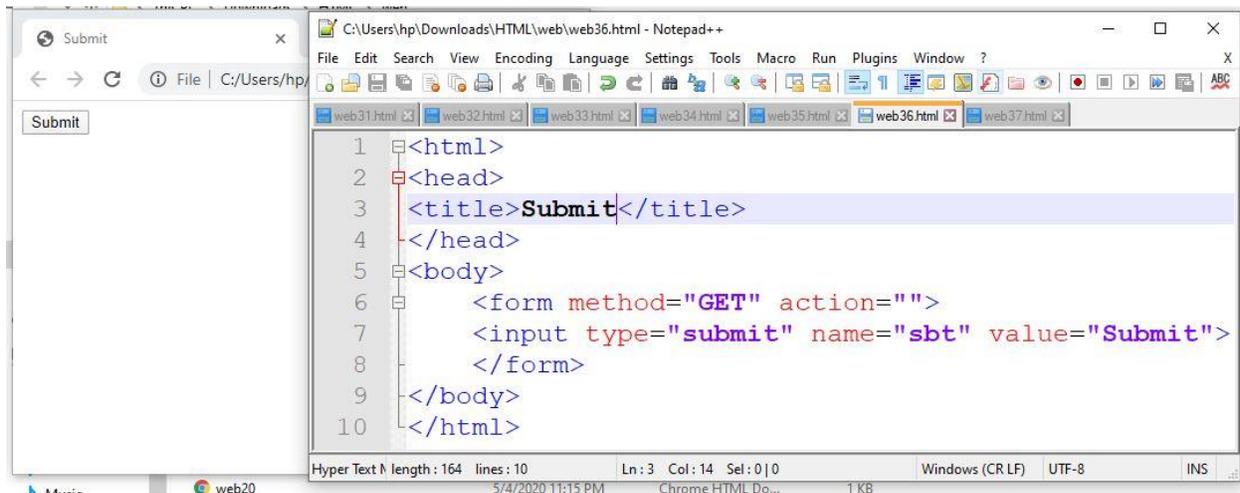
```

1 <html>
2 <head>
3 <title>Password</title>
4 </head>
5 <body>
6 <form method="GET" action="">
7   Password:<input type="password" name="pwd">
8 </form>
9 </body>
10 </html>

```

The status bar at the bottom indicates 'Hyper Text M length: 162 lines: 10 Ln: 1 Col: 7 Sel: 0|0 Windows (CR LF) UTF-8 INS'.

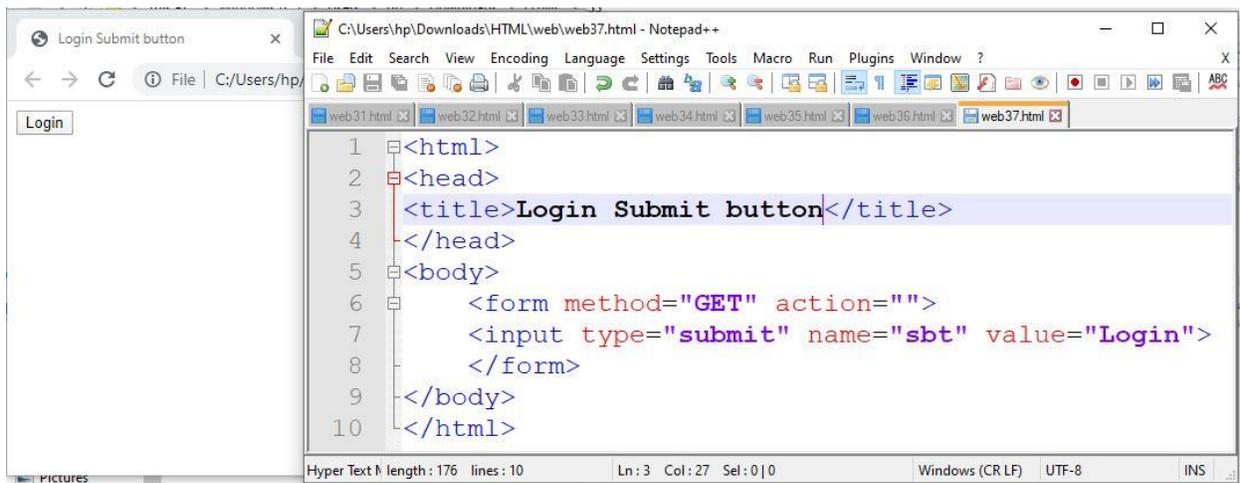
❖ Submit Button



The screenshot shows a web browser window with a single button labeled "Submit". To the right, the Notepad++ editor displays the HTML code for this page. The code is as follows:

```
1 <html>
2 <head>
3 <title>Submit</title>
4 </head>
5 <body>
6 <form method="GET" action="">
7 <input type="submit" name="sbt" value="Submit">
8 </form>
9 </body>
10 </html>
```

The status bar at the bottom indicates the document is a Hyper Text M with a length of 164, 10 lines, and is located at Ln: 3 Col: 14. The encoding is UTF-8.

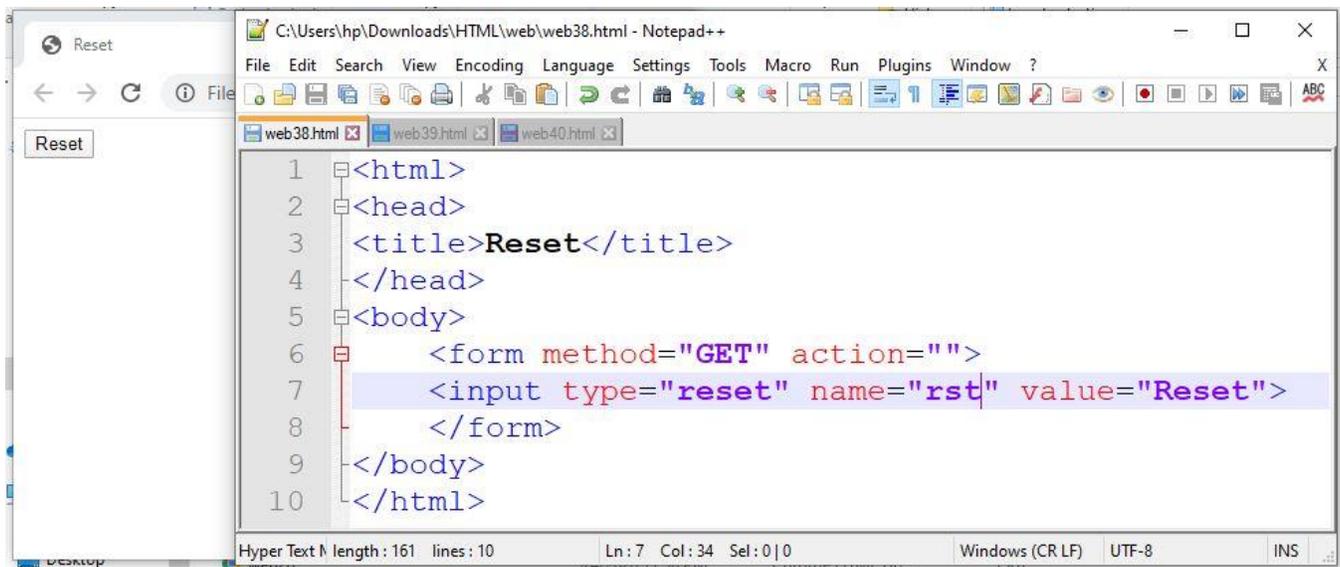


The screenshot shows a web browser window with a single button labeled "Login". To the right, the Notepad++ editor displays the HTML code for this page. The code is as follows:

```
1 <html>
2 <head>
3 <title>Login Submit button</title>
4 </head>
5 <body>
6 <form method="GET" action="">
7 <input type="submit" name="sbt" value="Login">
8 </form>
9 </body>
10 </html>
```

The status bar at the bottom indicates the document is a Hyper Text M with a length of 176, 10 lines, and is located at Ln: 3 Col: 27. The encoding is UTF-8.

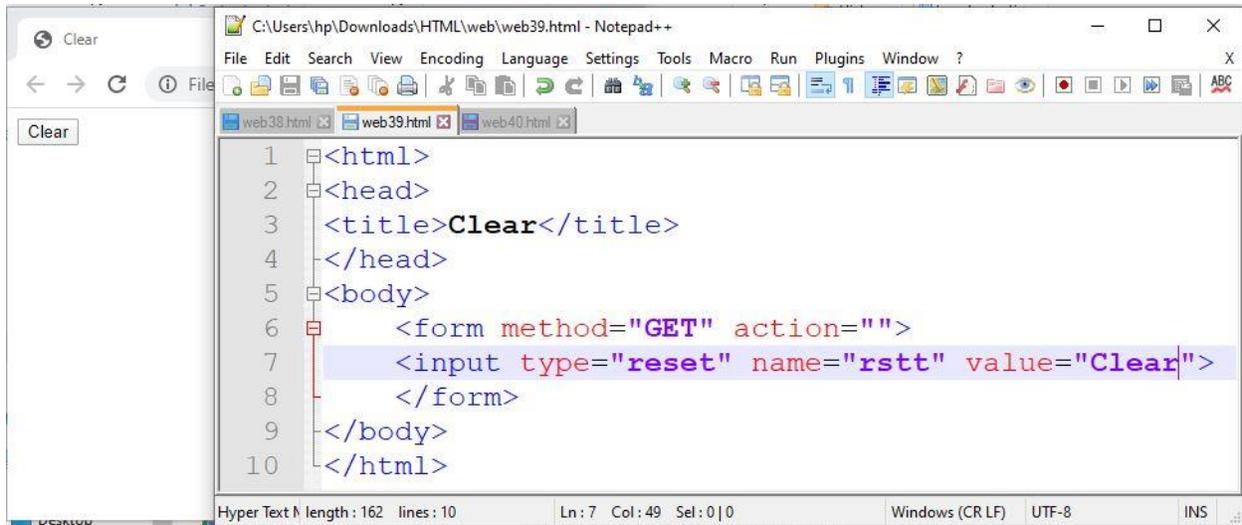
❖ Reset Button



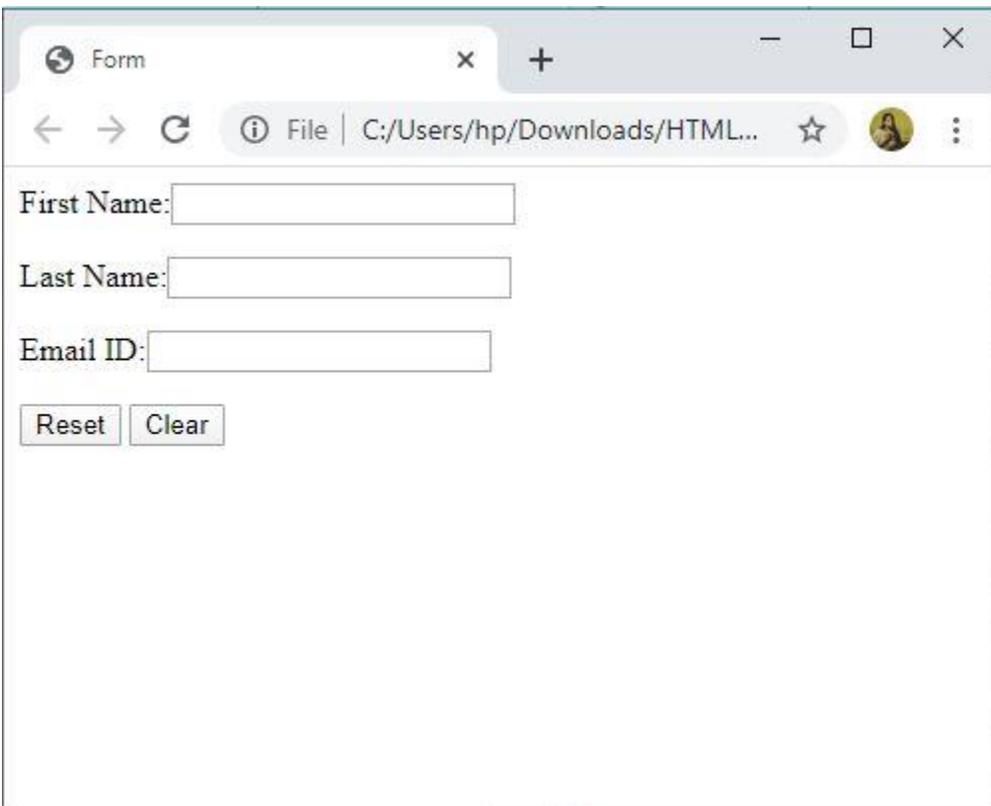
The screenshot shows a web browser window with a single button labeled "Reset". To the right, the Notepad++ editor displays the HTML code for this page. The code is as follows:

```
1 <html>
2 <head>
3 <title>Reset</title>
4 </head>
5 <body>
6 <form method="GET" action="">
7 <input type="reset" name="rst" value="Reset">
8 </form>
9 </body>
10 </html>
```

The status bar at the bottom indicates the document is a Hyper Text M with a length of 161, 10 lines, and is located at Ln: 7 Col: 34. The encoding is UTF-8.



```
1 <html>
2 <head>
3   <title>Clear</title>
4 </head>
5 <body>
6   <form method="GET" action="">
7     <input type="reset" name="rstt" value="Clear">
8   </form>
9 </body>
10 </html>
```



Form

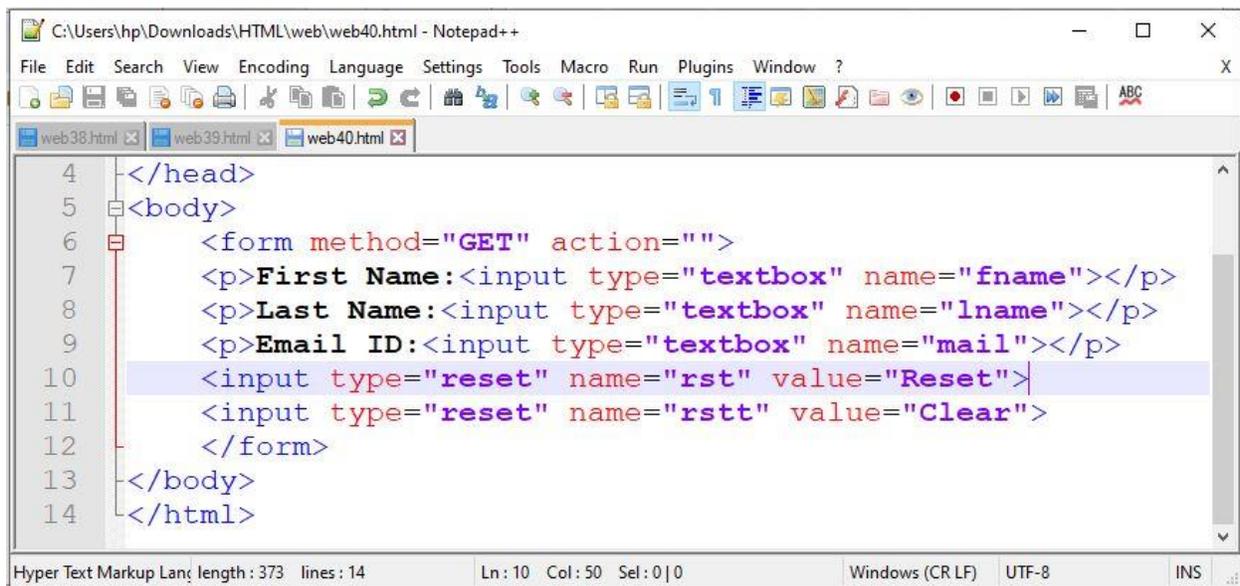
File | C:/Users/hp/Downloads/HTML...

First Name:

Last Name:

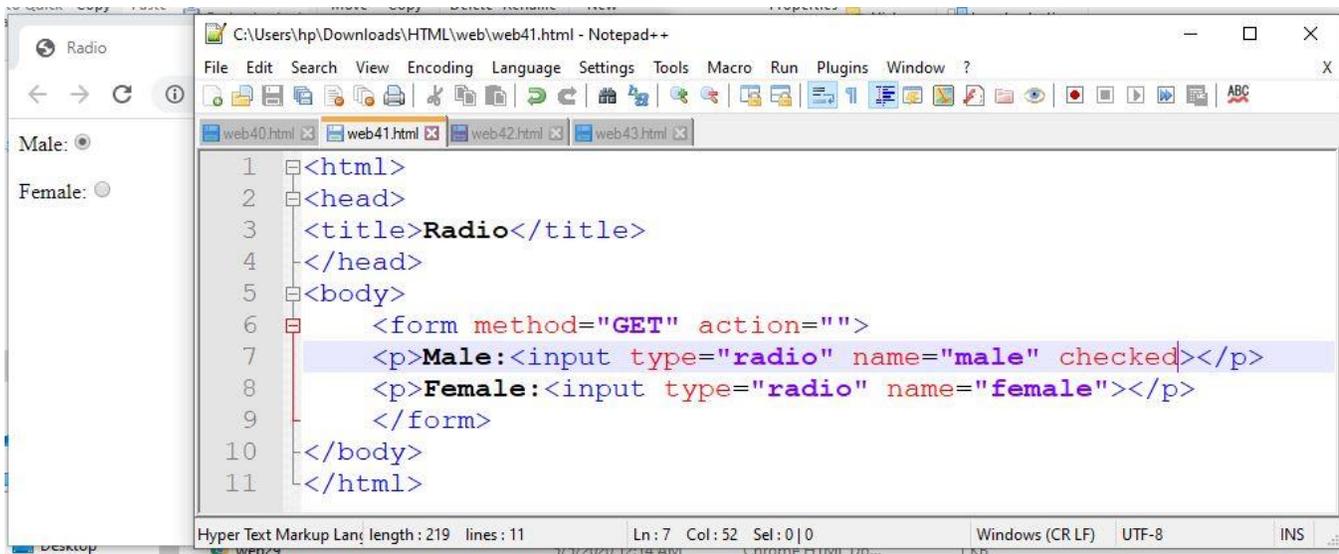
Email ID:

**How to
create this
form?**



```
C:\Users\hp\Downloads\HTML\web\web40.html - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
web38.html web39.html web40.html
4 </head>
5 <body>
6   <form method="GET" action="">
7     <p>First Name:<input type="textbox" name="fname"></p>
8     <p>Last Name:<input type="textbox" name="lname"></p>
9     <p>Email ID:<input type="textbox" name="mail"></p>
10    <input type="reset" name="rst" value="Reset">
11    <input type="reset" name="rstt" value="Clear">
12  </form>
13 </body>
14 </html>
Hyper Text Markup Lan length: 373 lines: 14 Ln: 10 Col: 50 Sel: 0|0 Windows (CR LF) UTF-8 INS
```

❖ Radio Button



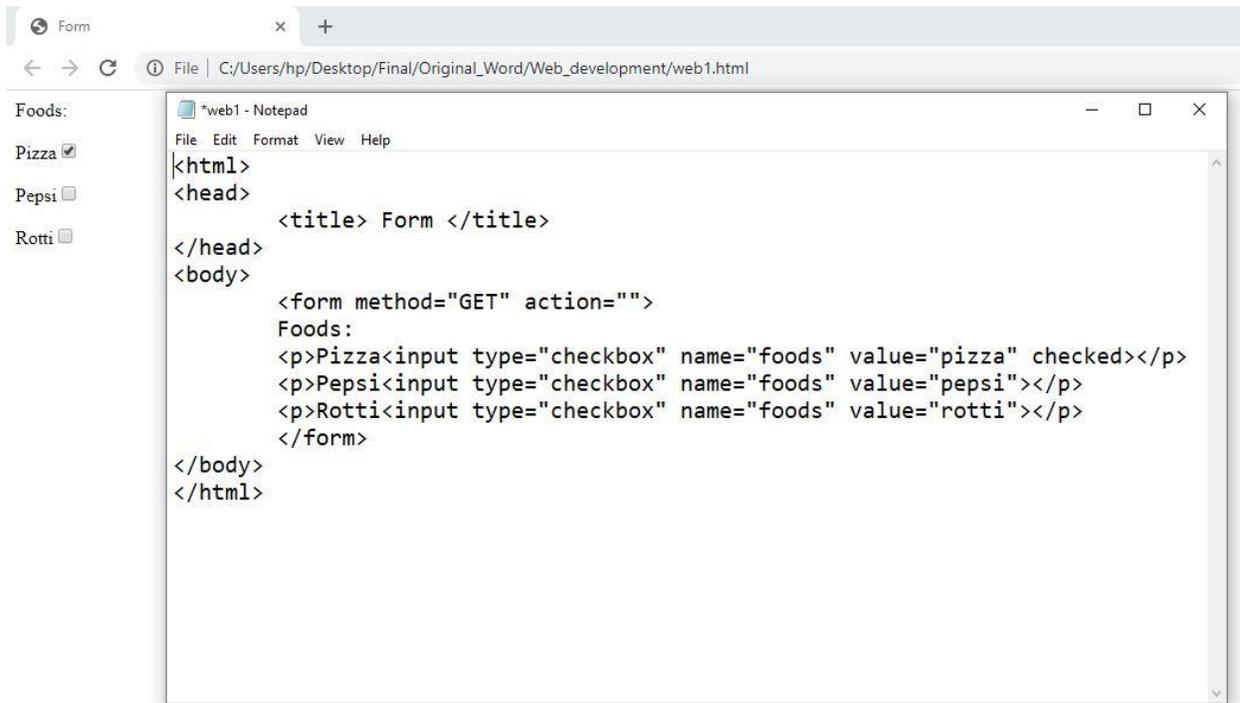
```
C:\Users\hp\Downloads\HTML\web\web41.html - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
web40.html web41.html web42.html web43.html
1 <html>
2 <head>
3   <title>Radio</title>
4 </head>
5 <body>
6   <form method="GET" action="">
7     <p>Male:<input type="radio" name="male" checked></p>
8     <p>Female:<input type="radio" name="female"></p>
9   </form>
10 </body>
11 </html>
Hyper Text Markup Lan length: 219 lines: 11 Ln: 7 Col: 52 Sel: 0|0 Windows (CR LF) UTF-8 INS
```

Radio

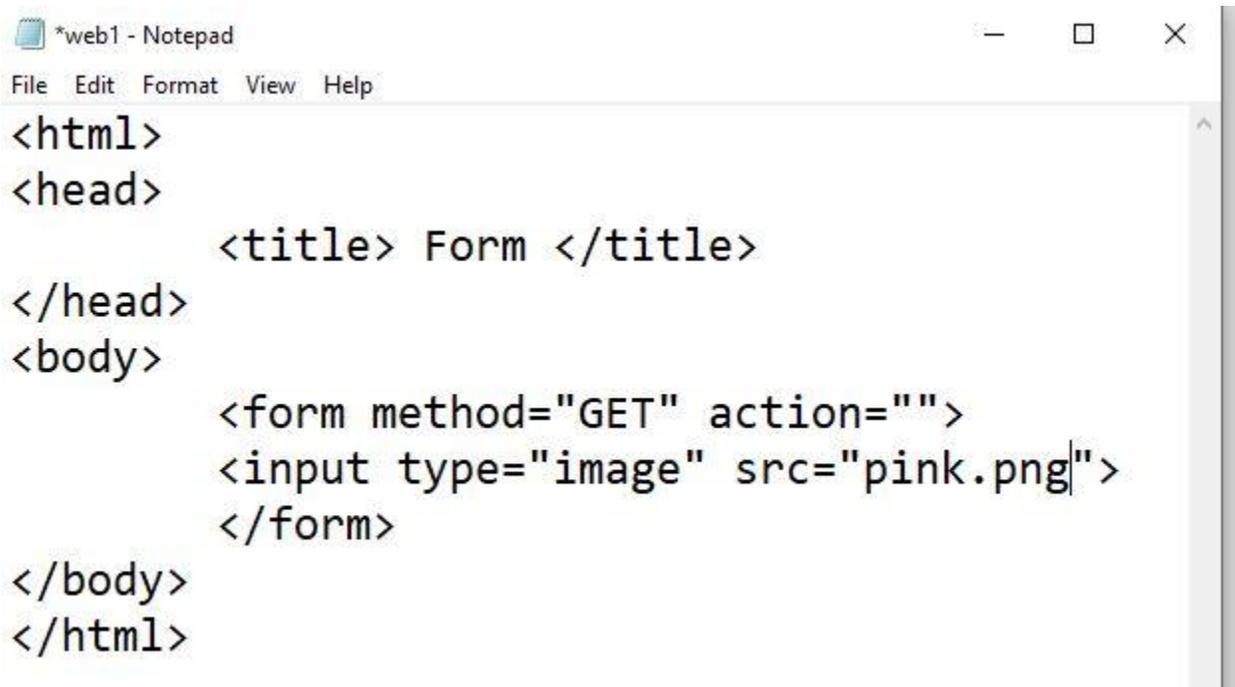
Male:

Female:

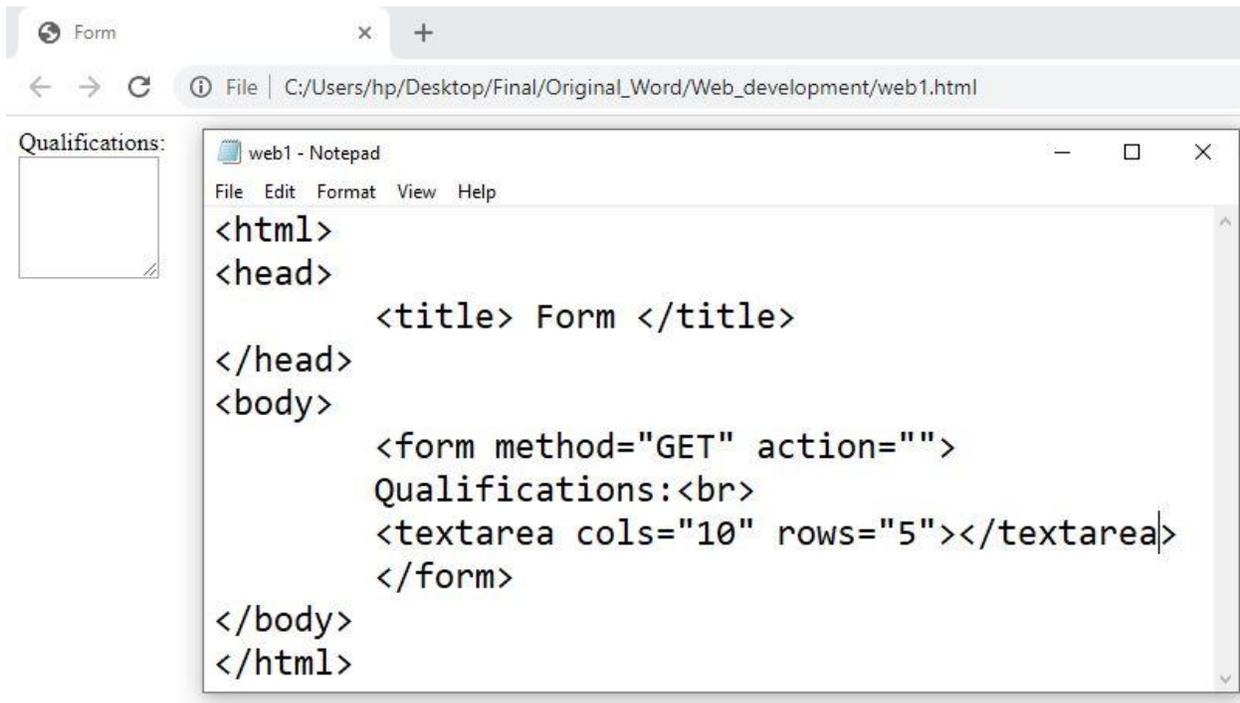
❖ Check Box



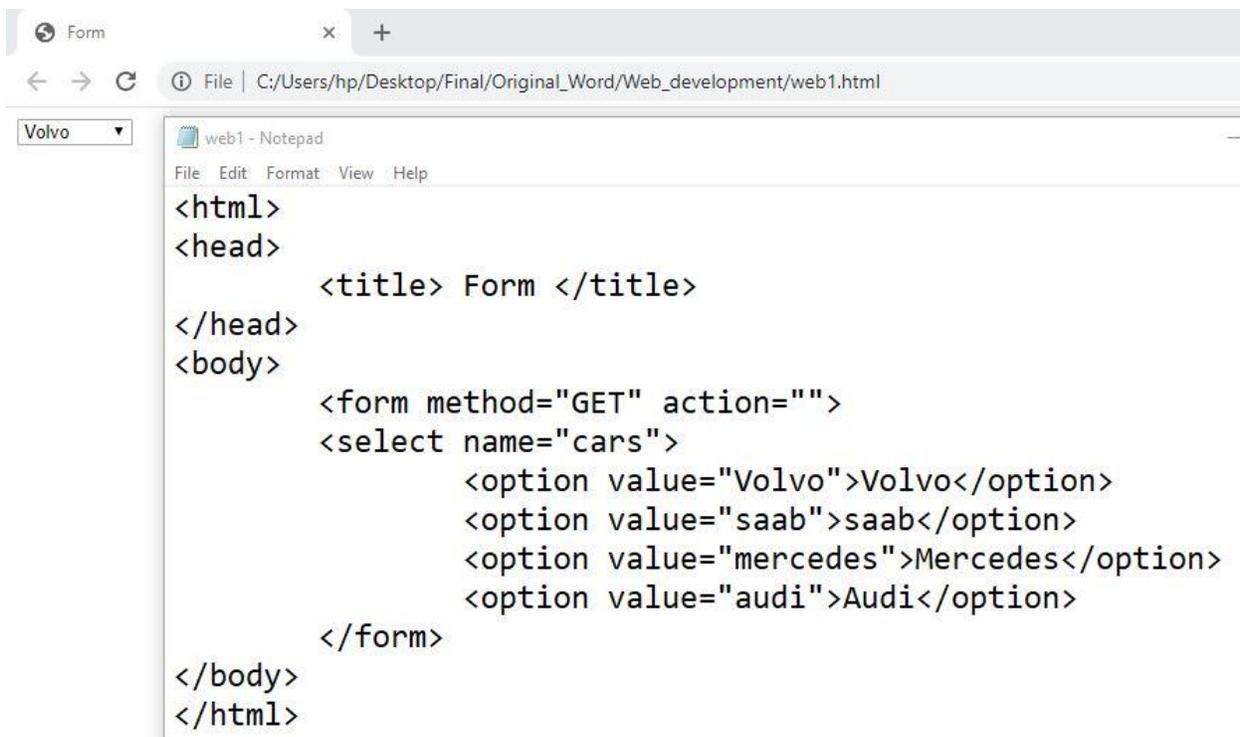
❖ Form Image



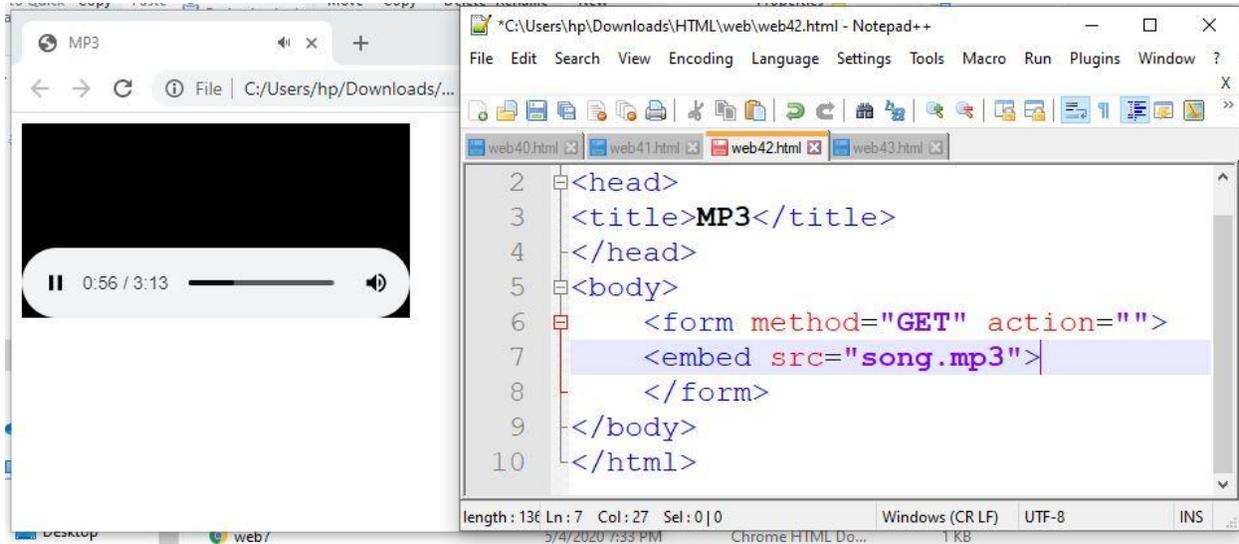
❖ Text Area



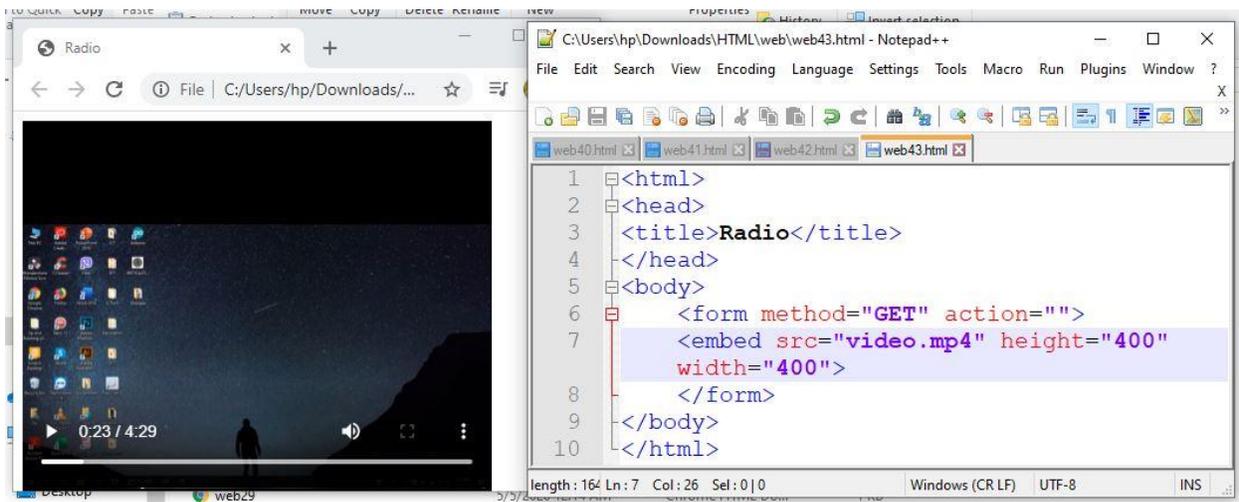
❖ Dropdown List



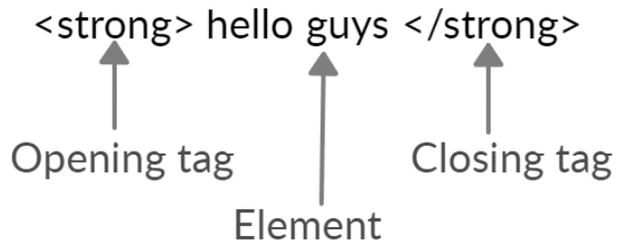
Sound & Audio



Video



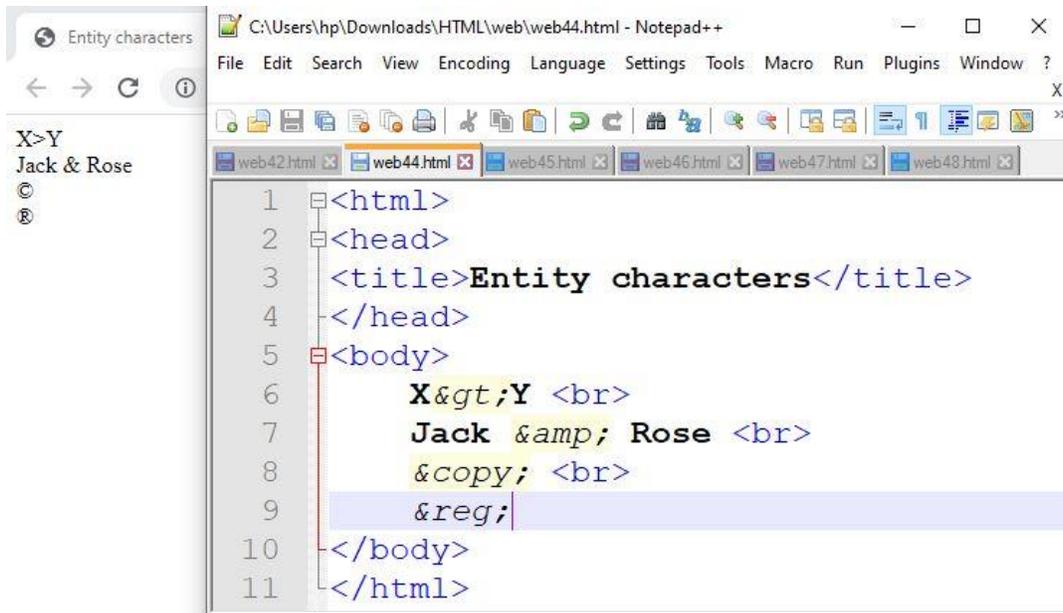
Text Elements



- HTML உறுப்புகளினால் HTML ஆவணங்கள் வரையறுக்கப்படுகின்றன.
- HTML உறுப்பு என்பது ஆரம்ப அடையாள ஒட்டிலிருந்து முடிவுறுத்தும் அடையாள ஒட்டிலிருந்து அனைத்தும் ஆகும்.

HTML Entity Characters

- Less than - **<**
- Greater than - **>**
- Ampersand - **&**
- Copyright - **©**
- Registered trade mark - **®**

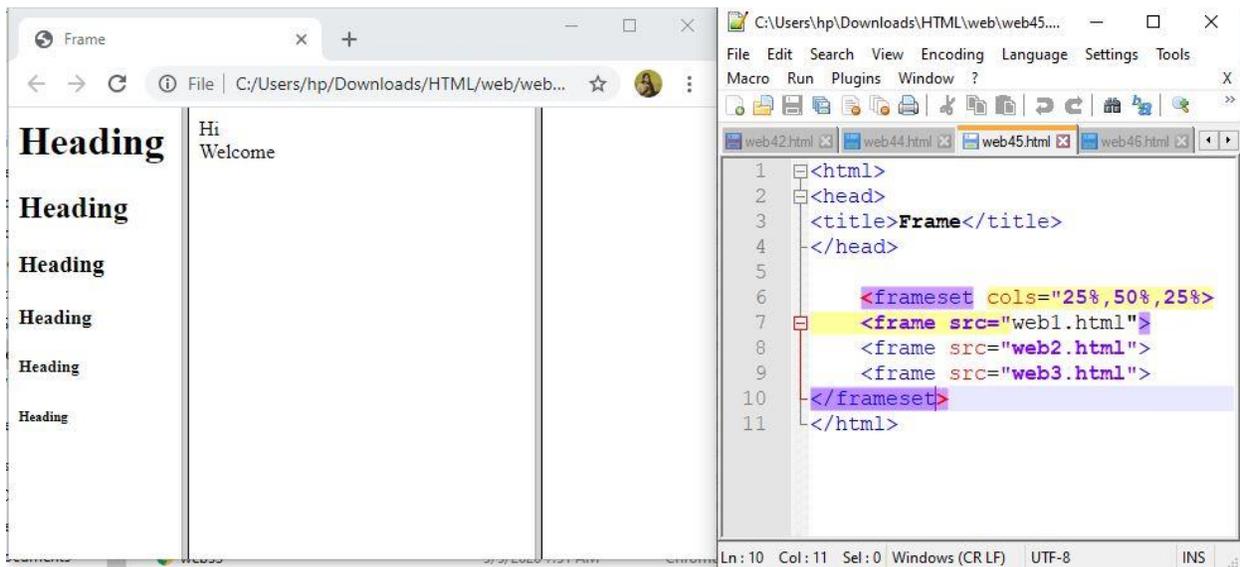


The screenshot shows a Notepad++ window titled "C:\Users\hp\Downloads\HTML\web\web44.html - Notepad++". The code is as follows:

```
1 <html>
2 <head>
3 <title>Entity characters</title>
4 </head>
5 <body>
6     X>Y <br>
7     Jack & Rose <br>
8     &copy; <br>
9     &reg;
10 </body>
11 </html>
```

The left sidebar shows a preview of the rendered HTML, displaying "X>Y", "Jack & Rose", and "©".

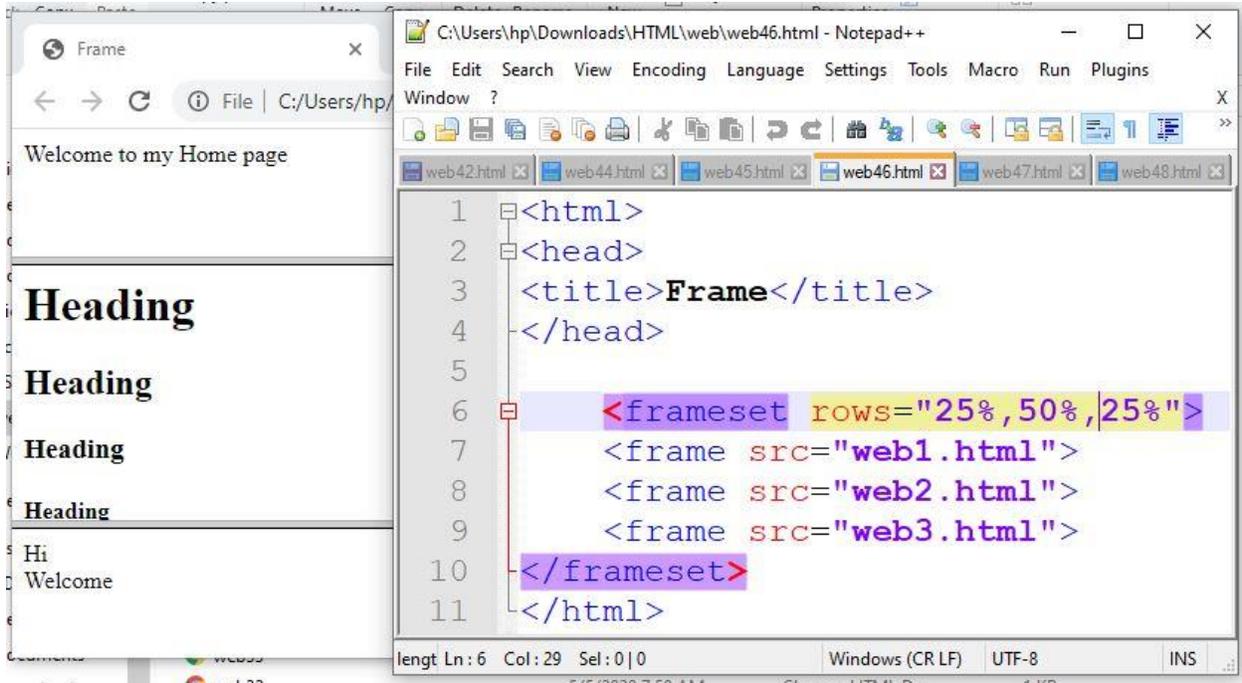
Frame



The screenshot shows a browser window titled "Frame" with a preview of a frame containing "Hi" and "Welcome". The code in the background is as follows:

```
1 <html>
2 <head>
3 <title>Frame</title>
4 </head>
5
6 <frameset cols="25%,50%,25%">
7 <frame src="web1.html">
8 <frame src="web2.html">
9 <frame src="web3.html">
10 </frameset>
11 </html>
```

The status bar at the bottom indicates "Ln: 10 Col: 11 Sel: 0 Windows (CR LF) UTF-8 INS".



HTML Comments

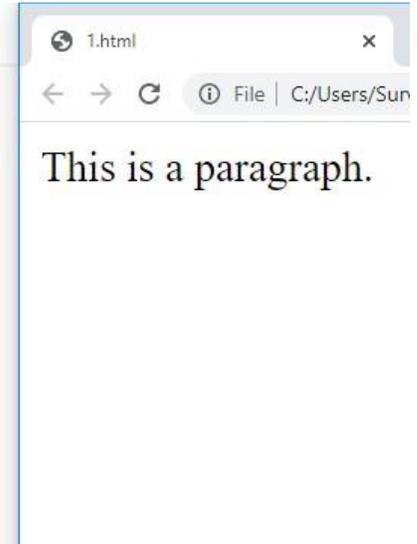
1 - Notepad

File Edit Format View Help

```
<html>
<body>

<!-- This is a comment -->
<p>This is a paragraph.</p>
<!-- Comments are not displayed in the browser -->

</body>
</html>
```



- Comments are not displayed by the browser, but they can help document your HTML source code.
- கருத்துரைகள், செயல்நிரல்கள் அல்லது குறிமுறைகள் பற்றி விபரிக்கின்றது.

Pre-Formatted Text

1 - Notepad

File Edit Format View Help

```
<html>
<body>
<pre>
Text in a pre element
is displayed in a fixed-width
font,
and it preserves
both spaces and
line breaks
</pre>
</body>
</html>
```

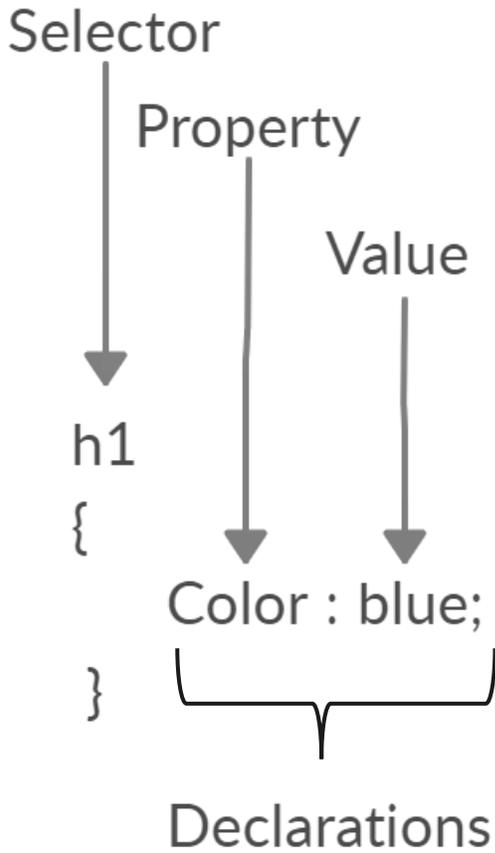
1.html

File | C:/Users/Survey%20Department/Desktop/html/1.htm

```
Text in a pre element
is displayed in a fixed-width
font,
and it preserves
both spaces and
line breaks
```

CSS

- cascading style sheet
- உறுப்புகள் (elements) ஏவ்வாறு காட்சிப்படுத்தப்பட வேண்டியுள்ளது என்பதனை CSS தீர்மானிக்கின்றது.
- தரவுகள் / உள்ளடக்கங்கள் ஏவ்வாறு காட்சிப்படுத்தப்பட வேண்டும் என்பதை HTML விபரிக்கின்றது.



```
{  
font-family:arial;  
}
```

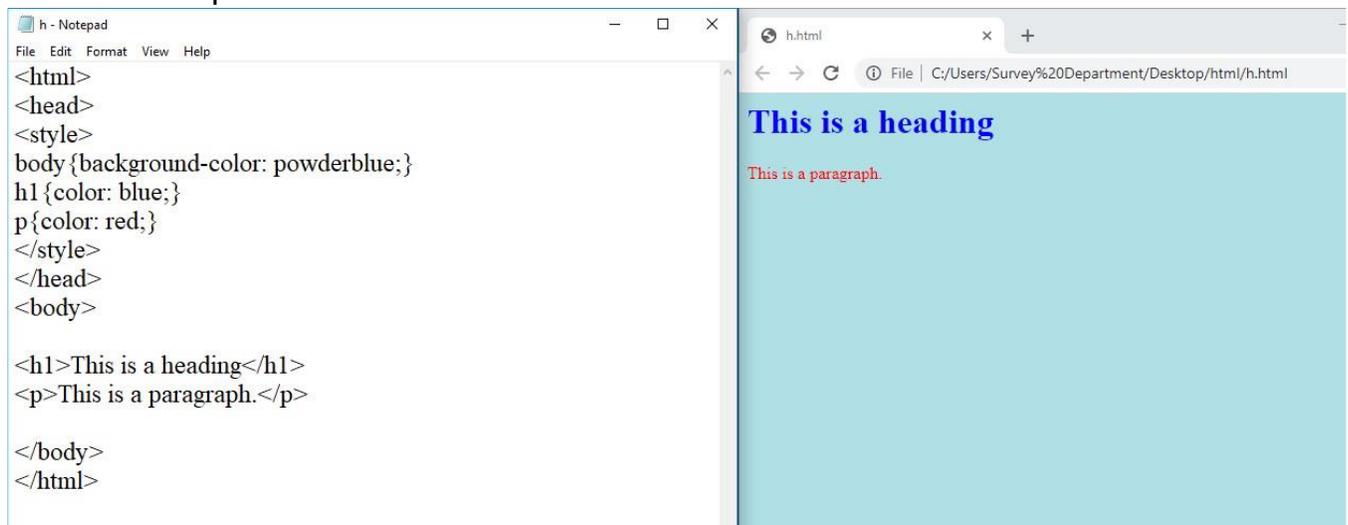
```
h1  
{  
Color:pink; Font-size:12px;  
}
```

❖ CSS can be classified into 3 types

- Internal style sheet
- External style sheet
- Inline style sheet

Internal Style Sheet

- By using the style attribute in HTML elements
- An internal CSS is defined in the <head> section of an HTML page, within a <style> element
- Example



External Style Sheet

- Each HTML page must include a reference to the external style sheet file inside the <link> element, inside the head section.
- An external style sheet can be written in any text editor, and must be saved with a .css extension.
- The external.css file should not contain any HTML tags



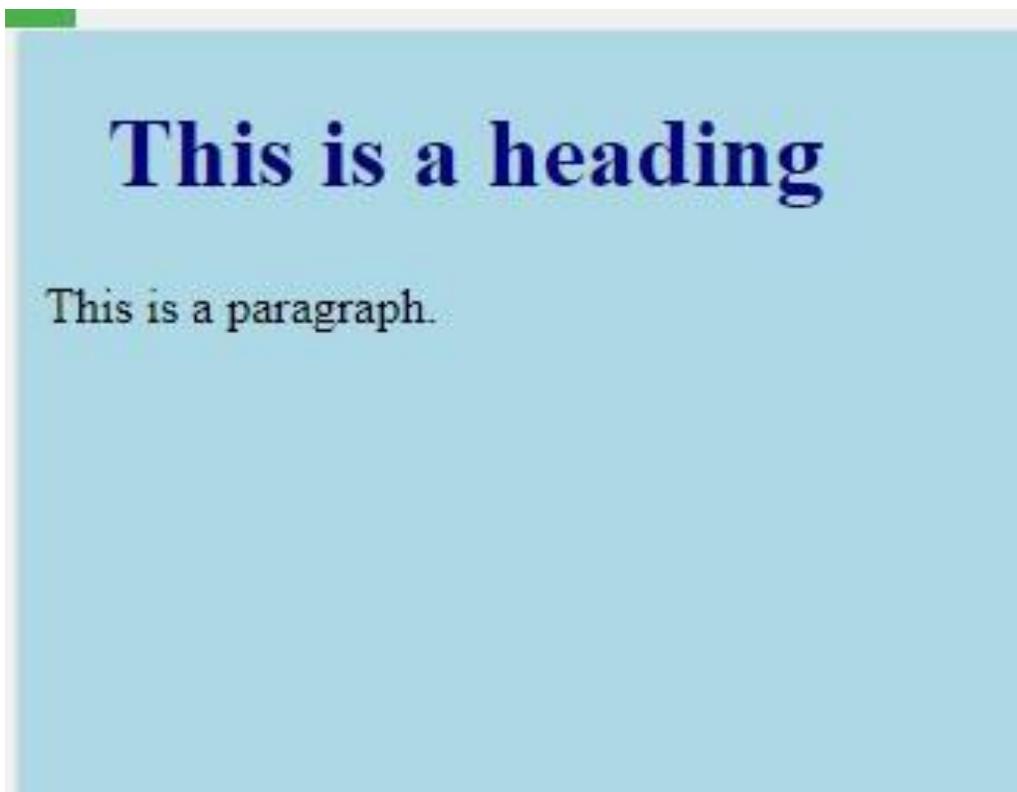
```
h - Notepad
File Edit Format View Help
<html>
<head>
<link rel="stylesheet" type="text/css" href="mystyle.css">
</head>
<body>

<h1>This is a heading</h1>
<p>This is a paragraph.</p>

</body>
</html>
```

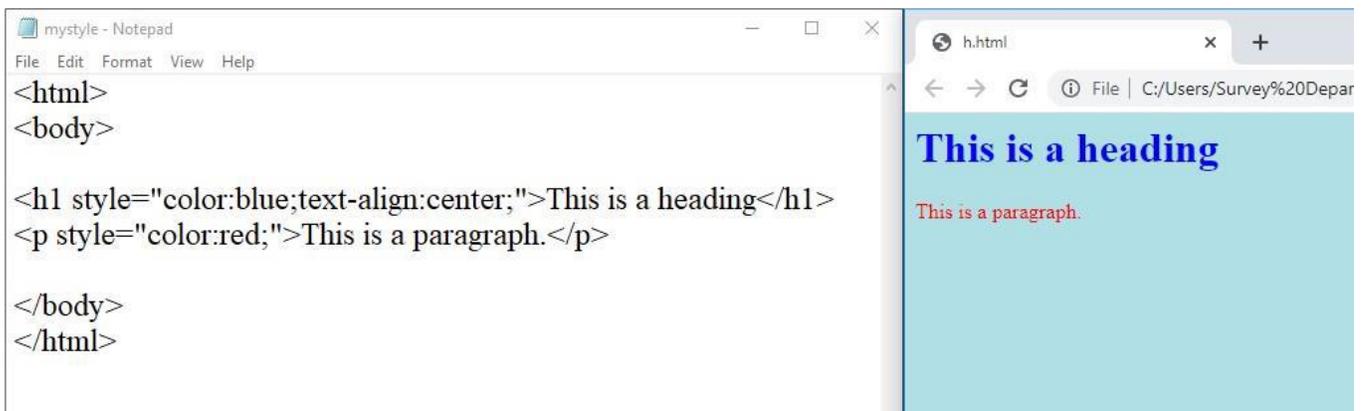
```
mystyle - Notepad
File Edit Format View Help
body {
  background-color: lightblue;
}

h1 {
  color: navy;
  margin-left: 20px;
}
```



Inline Style Sheet

- An inline style may be used to apply a unique style for a single element.
- To use inline styles, add the style attribute to the relevant element.
- The style attribute can contain any CSS property.



Background Color

Body

```
{  
Background-color:red;  
}
```

Body

```
{  
Background-color:#00FF00;  
}
```

Font Family

p

```
{  
font-family: "Times New Roman", Times, serif;  
}
```

p

```
{  
font-family: arial;  
}
```

Margin

```

<!DOCTYPE html>
<html>
<head>
<style>
div {
  border: 1px solid black;
  margin-top: 100px;
  margin-bottom: 100px;
  margin-right: 150px;
  margin-left: 80px;
  background-color: lightblue;
}
</style>
</head>
<body>

<h2>Using individual margin
properties</h2>

<div>This div element has a top
margin of 100px, a right margin of
150px, a bottom margin of 100px, and
a left margin of 80px.</div>

</body>
</html>

```

Using individual margin properties

This div element has a top margin of 100px, a right margin of 150px, a bottom margin of 100px, and a left margin of 80px.

```

p
{
margin: 25px 50px 75px 100px;
}

```

Right
Left

↓
↓

↑
↑

Top
Bottom

```
p
{
margin: 25px 50px 75px;
}
```

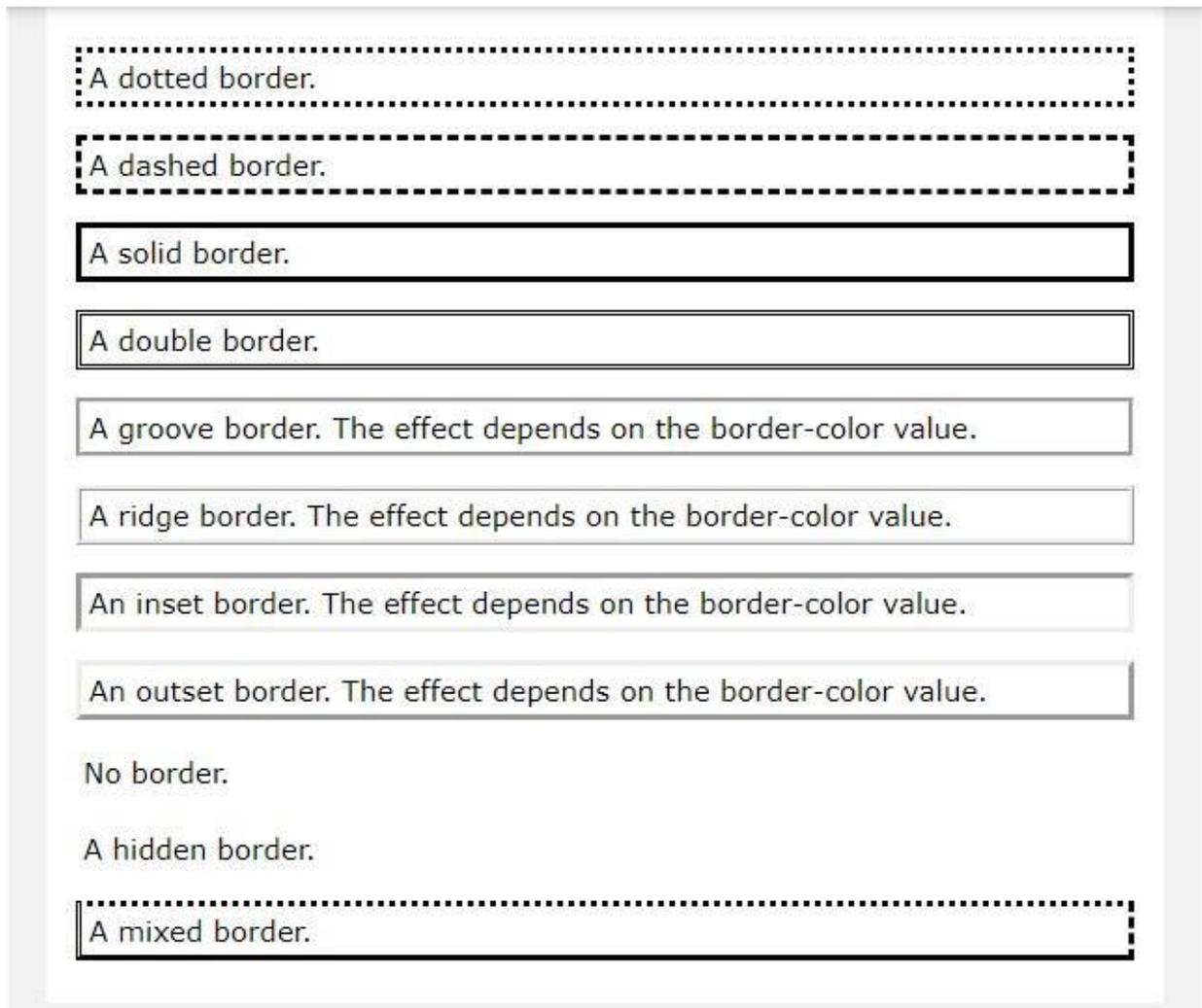
Right & Left
↓
↑ Top ↑ Bottom

```
p
{
border: 1px solid red;
margin-left: 100px;
}
```

NOTE:
1px solid red;
solid- style
red- color

Borders

```
p.dotted {border-style: dotted;}
p.dashed {border-style: dashed;}
p.solid {border-style: solid;}
p.double {border-style: double;}
p.groove {border-style: groove;}
p.ridge {border-style: ridge;}
p.inset {border-style: inset;}
p.outset {border-style: outset;}
p.none {border-style: none;}
p.hidden {border-style: hidden;}
p.mix {border-style: dotted dashed solid double;}
```

Output:**Group Selector**

- It will be better to group the selectors, to minimize the code.
- To group selectors, separate each selector with a comma.

h1, h2, p

{

text-align: center;

color: red;

}

Text Decorations

```
h1  
{  
text-decoration: overline;  
}
```

```
h2  
{  
text-decoration: line-through;  
}
```

```
h3  
{  
text-decoration: underline;  
}
```

```
h4  
{  
text-decoration: underline overline;  
}
```

```
h4  
{  
  
text-decoration-color: blue;  
}
```

```
h - Notepad
File Edit Format View Help
<html>
<head>
<style>
h1 {
  text-decoration: overline;
}

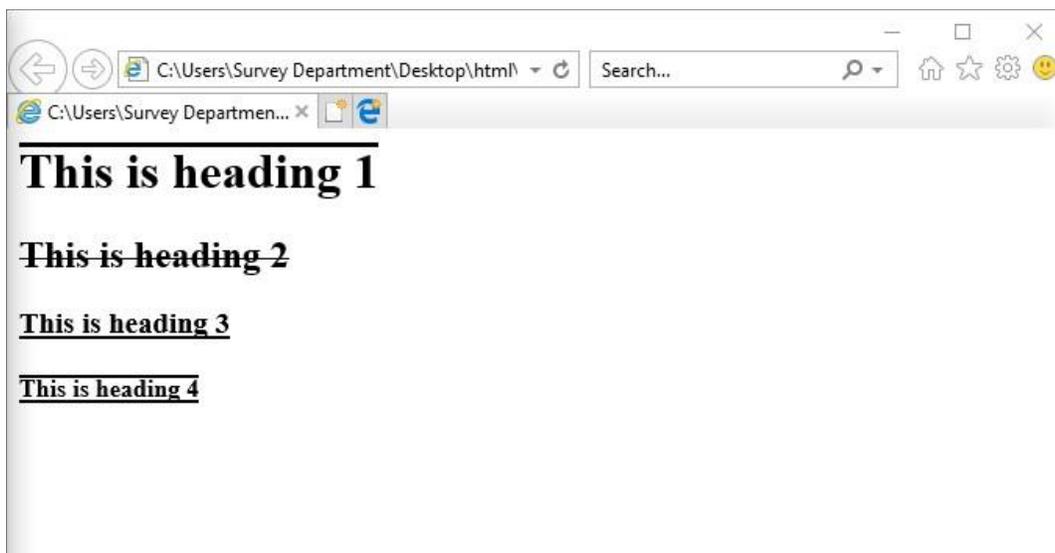
h2 {
  text-decoration: line-through;
}

h3 {
  text-decoration: underline;
}

h4 {
  text-decoration: underline overline;
}
</style>
</head>
<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>

</body>
</html>
```



```
h1  
{  
text-decoration: underline overline dotted red;  
}
```

Background Image

```
body  
{  
background-image: url("paper.gif");  
background-color: #cccccc;  
}
```

List

The list-style-type property specifies the type of list item marker.

```
ul  
{  
list-style-type: circle;  
}
```

```
ul  
{  
list-style-type: square;  
}  
ol  
{  
list-style-type: upper-roman;  
}
```

```
ol
{
list-style-type: lower-alpha;
}
```

CSS Comment

- Comments are used to explain the code, and may help when you edit the source code at a later date.
- Comments are ignored by browsers.
- A CSS comment starts with `/*` and ends with `*/`

```
/* This is a single-line comment */
```

```
p {
color: red;
}
```

Font Style

```
p
{
font-style: italic;
}
```

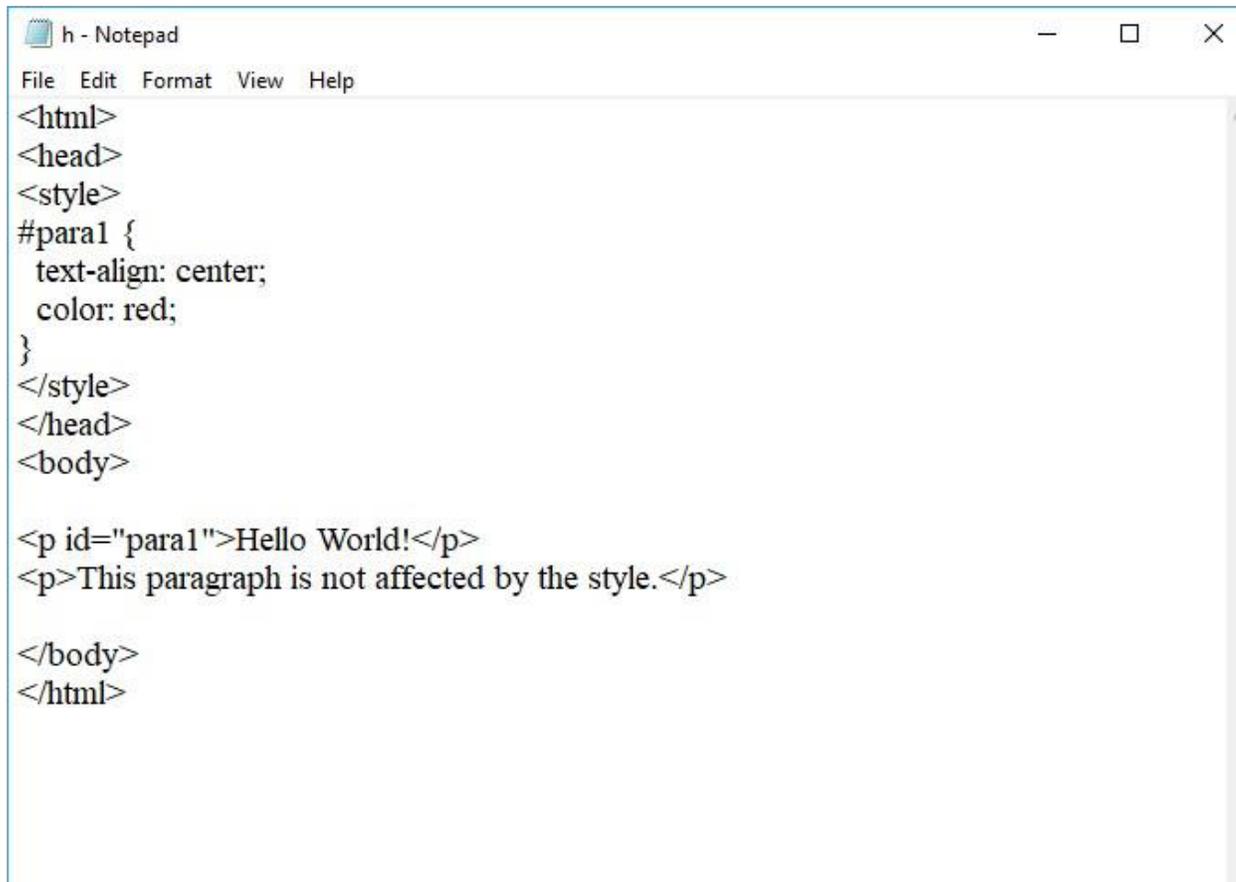
```
p
```

```
{  
font-style: bold;  
}
```

ID Selector

- The id selector uses the id attribute of an HTML element to select a specific element.
- The id of an element is unique within a page, so the id selector is used to select one unique element!
- To select an element with a specific id, write a hash (#) character, followed by the id of the element.
 - Example:

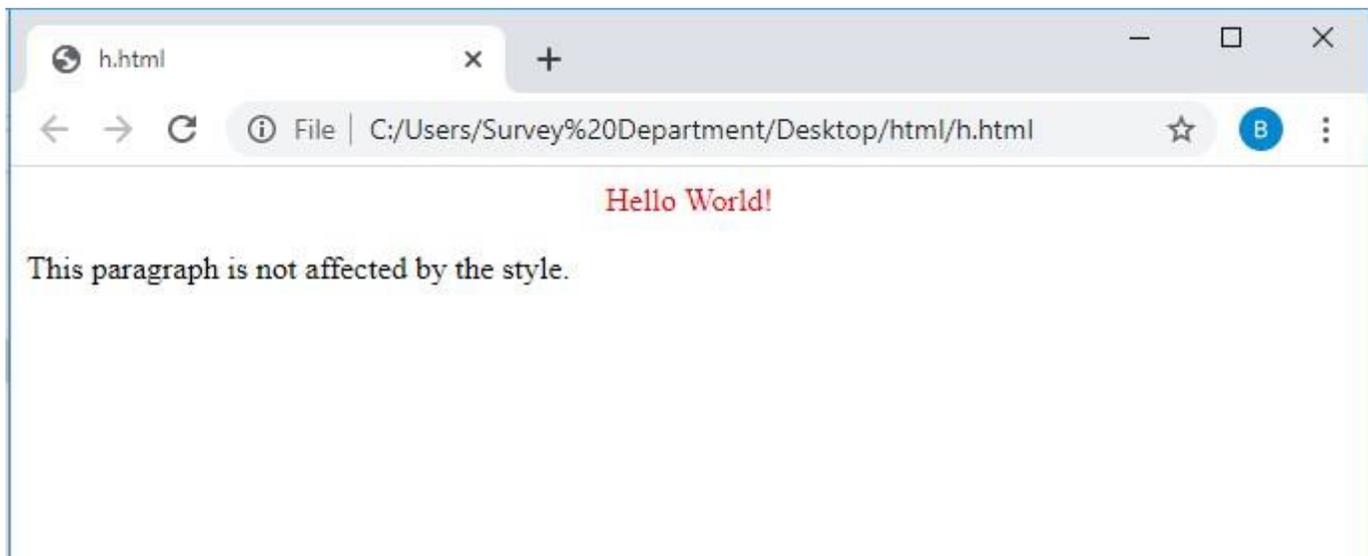
```
#para1  
{  
text-align: center;  
color: red;  
}
```



```
h - Notepad
File Edit Format View Help
<html>
<head>
<style>
#para1 {
  text-align: center;
  color: red;
}
</style>
</head>
<body>

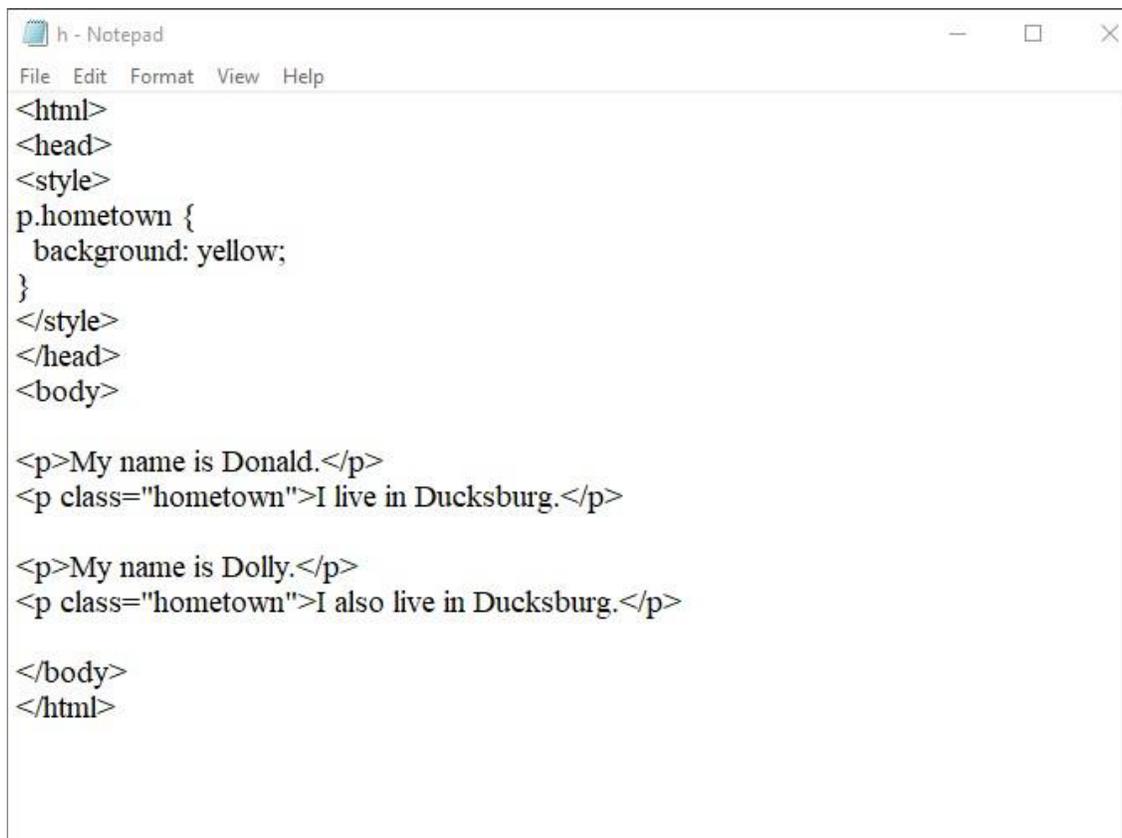
<p id="para1">Hello World!</p>
<p>This paragraph is not affected by the style.</p>

</body>
</html>
```



Class Selector

- The .class selector selects elements with a specific class attribute.
- To select elements with a specific class, write a period (.) character, followed by the name of the class.

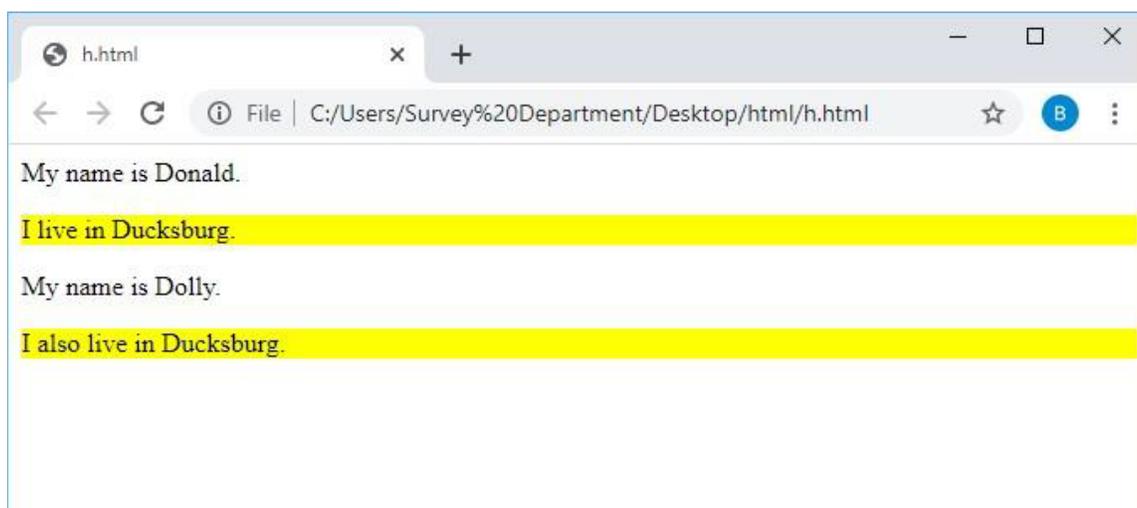


```
h - Notepad
File Edit Format View Help
<html>
<head>
<style>
p.hometown {
  background: yellow;
}
</style>
</head>
<body>

<p>My name is Donald.</p>
<p class="hometown">I live in Ducksburg.</p>

<p>My name is Dolly.</p>
<p class="hometown">I also live in Ducksburg.</p>

</body>
</html>
```

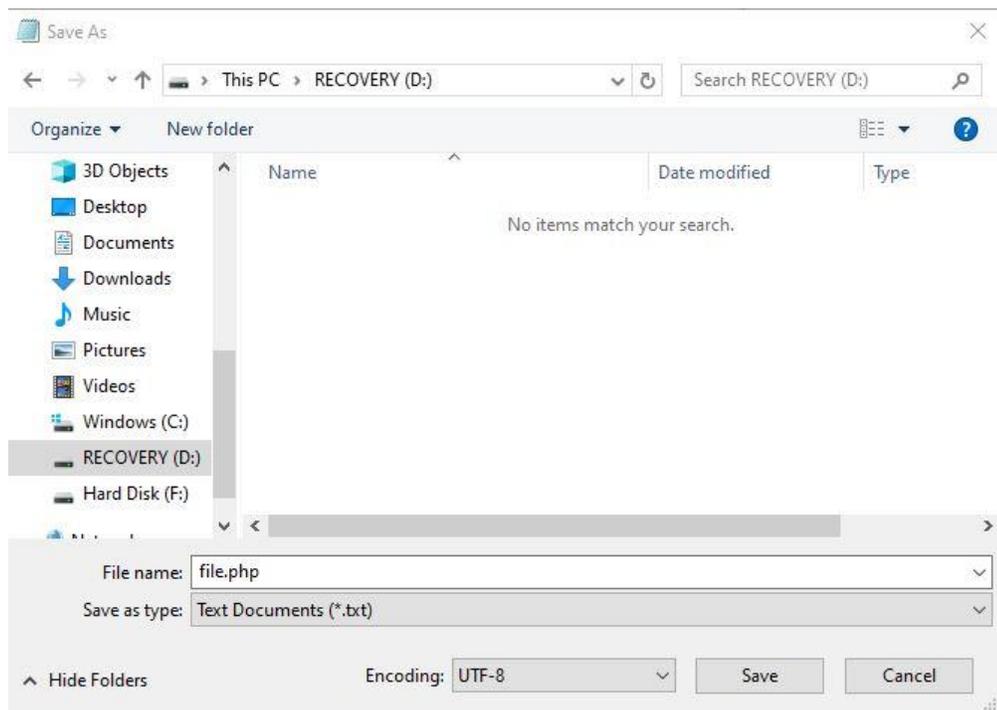




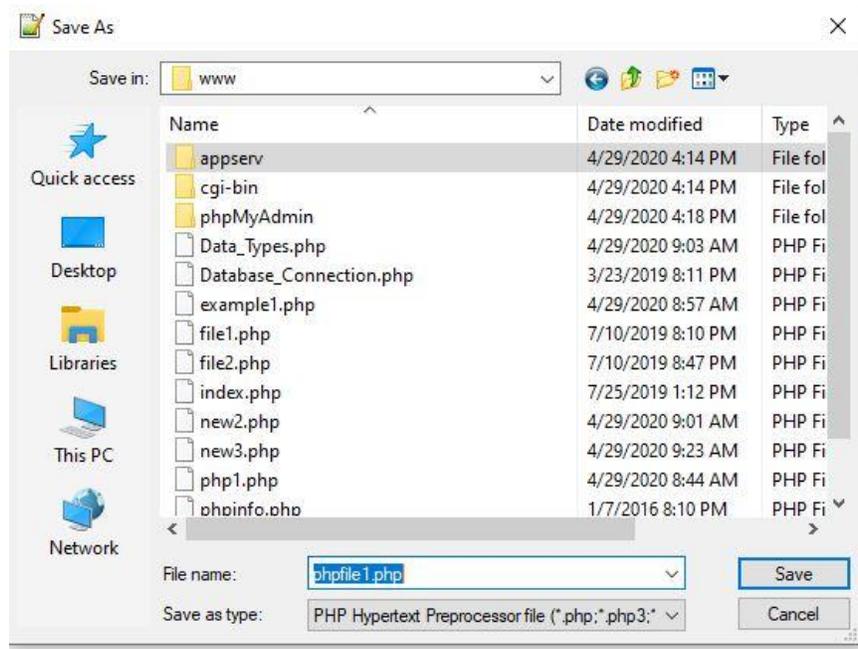
PHP

❖ Instructions to run PHP...

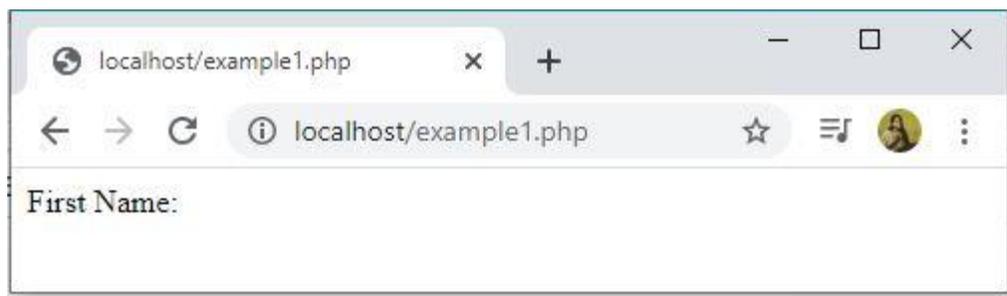
- Install Appserv
 - AppServ is a windows program that can turn your PC into Web Server and Database Server by installing Apache, PHP, MySQL services on your local machine.
 - Download link - <https://www.appserv.org/en/>
 - Further Installation tips – <https://www.betterhostreview.com/appserv-faq.html>
- To run a PHP file, you have to save the file with extension **.php**
 - For notepad ("C:\AppServ\www\file1.php")



- If you're running in Notepad++ ("C:\AppServ\www\file1.php")



- To run php type " **localhost/yourfilename.php** " on the browser Address bar as below.



Print

1. echo with “ ___ ”



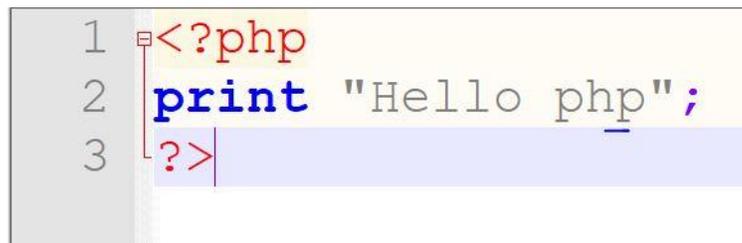
```
C:\Users\hp\Desktop\PHP\php1.php - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins
php1.php Fom1.html example1.php new2.php Data_Types.php new
1 <?php
2 echo "Hello php";
3 ?>
```

2. echo with ‘ ___ ’



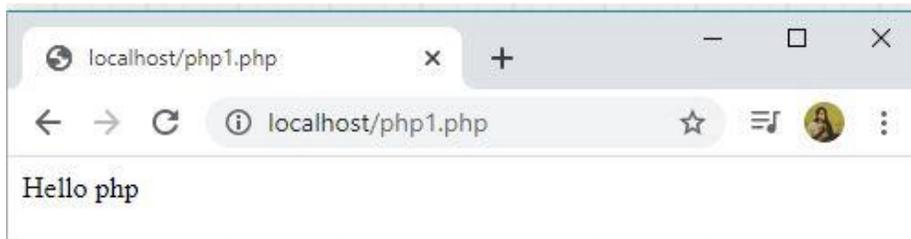
```
1 <?php
2 echo 'Hello php';
3 ?>
```

3. print



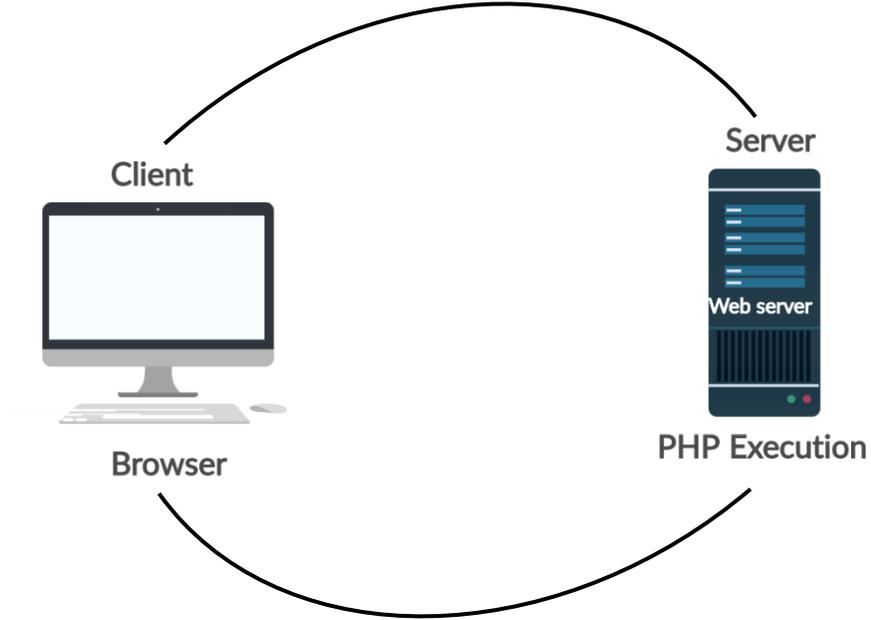
```
1 <?php
2 print "Hello php";
3 ?>
```

For All, this will be the Output



About PHP...

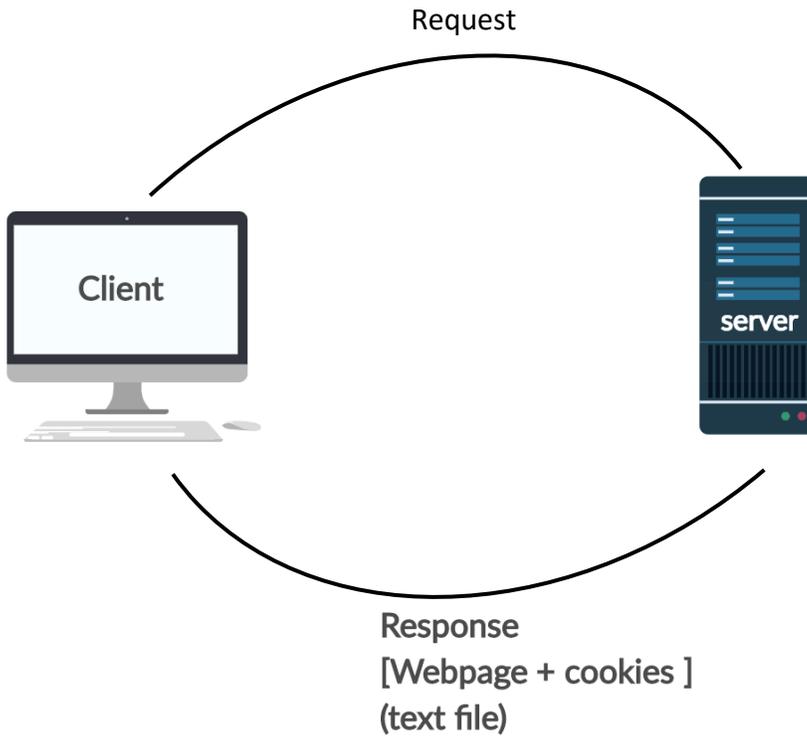
- PHP - Hypertext Preprocessor
- PHP is a server-side scripting language



- PHP is a powerful tool for making dynamic and interactive web pages.
- PHP scripts are executed on the web server
- PHP is a widely-used, open source scripting language

Note: -

- PHP ஆனது மாறக்கூடிய உள்ளடக்கங்களைக் கொண்ட வலைப்பக்கங்களை உருவாக்குவதற்கு பயன்படுத்தப்பட முடியும்.
- வலை சேவையகம் ஒன்றில் கோப்புக்களை உருவாக்குதல், திறத்தல், வாசித்தல், அழித்தல் மற்றும் மூடுதல் போன்ற செயற்பாடுகளை மேற்கொள்வதற்கு PHP பயன்படுத்தப்பட முடியும்.
- PHP ஆனது படிவங்களிலுள்ள (forms) தரவுகளை கைப்பற்றுவதற்கு உதவும்.
- PHP ஆனது cookies இனை அனுப்புவதற்கும் பெறுவதற்கும் பயன்படுத்தப்பட முடியும்.



- PHP இயங்குநிலை மற்றும் பயனர் இடைத்தொடர்புள்ள வலைப்பக்கங்களை உருவாக்க பயன்படுத்தப்படுகிறது. (dynamic and interactive webpages)
- PHP script வலை சேவையகம் ஒன்றில் நிறைவேற்றப்படுகின்றது.
- PHP ஓர் திறந்தமூல Scripting மொழி ஆகும்
- PHP ஆனது தரவுத்தளமொன்றிலுள்ள தரவுகளை சேர்ப்பதற்கு, அழிப்பதற்கு/ மாற்றப்படுவதற்கு பயன்படுத்தப்பட முடியும்.

HTTP Request Methods

- ❖ GET
- ❖ POST

GET Method

- ஒரு வலைப்பக்கத்தின் படிவத்திலிருந்து அனுப்பப்பட்ட தரவுகள் GET முறையினை பயன்படுத்தும் போது வலைமேலோடியில் அனைவருக்கும் காட்சிப்படுத்தப்படும்.(Visible)
- ஒரு வலைப்பக்கத்திலிருந்து இன்னொரு வலைப்பக்கத்திற்கு அனுப்பப்படுகின்ற தரவுகளின் அளவு மட்டுப்படுத்தப்பட்டதாகும்.
- GET வேண்டுகைகள் பதுக்கப்பட (Cached) முடியும்.
- GET வேண்டுகைகள் வலைமேலோடியில் சேமிக்கப்பட கூடியன.
- GET வேண்டுகைகள் புத்தக அடையாளமிடப்பட முடியும்.(book marked)
- GET வேண்டுகைகள் அதிக முக்கியத்துவம் வாய்ந்த தரவுகளை அனுப்ப பயன்படுத்தப்படுவதில்லை.

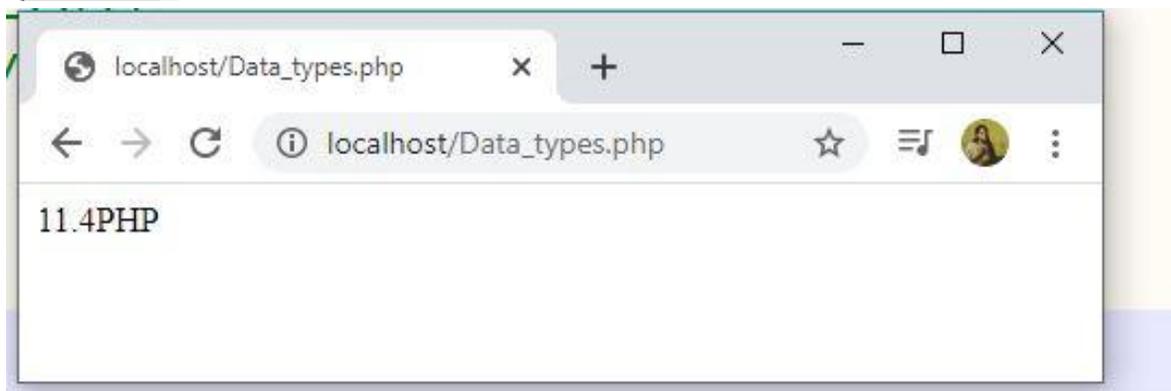
POST Method

- ஒரு வலைப்பக்கத்திலிருந்து இன்னொரு வலைப்பக்கத்திற்கு அனுப்பப்படும் தரவுகளின் அளவு வரையறைக்குட்பட்டதில்லை.
- ஒரு வலைப்பக்கத்திலிருந்து இன்னொரு வலைப்பக்கத்திற்கு அனுப்பப்படும் தரவுகள் மட்டுப்படுத்தப்படுவதில்லை.
- POST வேண்டுகைகள் பதுக்கப்பட முடியாதவை.
- POST வேண்டுகைகள் வலைமேலோடியில் தொடர்ந்து சேமிக்கப்படுவதில்லை.
- POST வேண்டுகைகள் புத்தக அடையாளமிடப்பட முடியாதவை. (Book marked)

Data Types

```
C:\AppServ\www\Data_Types.php - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Wind
Data_Types.php Fom1.html Database_Connection.php example1.php file1.php
1 <?php
2 $x=5; //Integer
3 $y=6.4; //float
4 $s="PHP"; //string
5 echo $x+$y;
6 echo $s;
7 ?>
```

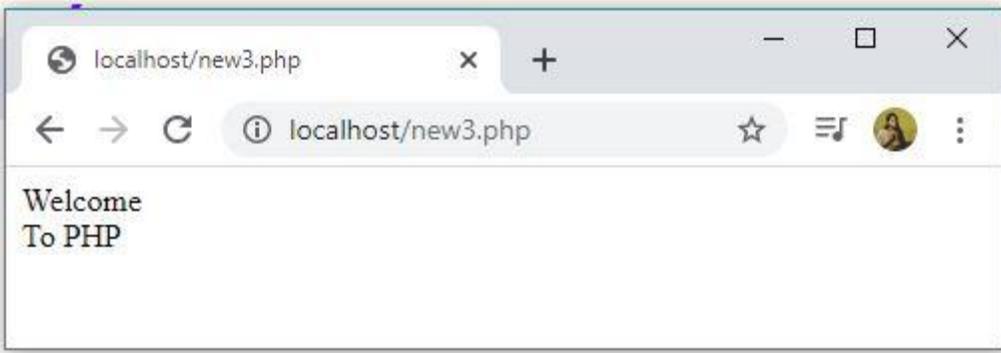
//These are Comments
//these wont Display
in the output



- More Examples

1.

```
1 <?php
2 echo "Welcome". "<br>";
3 echo "To PHP";
4 ?>
```

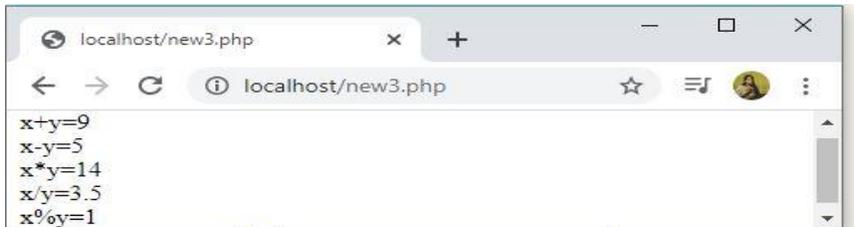


localhost/new3.php

Welcome
To PHP

Arithmetic operations

```
C:\AppServ\www\new3.php - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
Form1.html Database_Connection.php example1.php file1.php file2.php index.php new2.php new3.php
1 <?php
2 $x=7;
3 $y=2;
4 echo ("x+y=" . ($x+$y) . "<br />");
5 echo ("x-y=" . ($x-$y) . "<br />");
6 echo ("x*y=" . ($x*$y) . "<br />");
7 echo ("x/y=" . ($x/$y) . "<br />");
8 echo ("x%y=" . ($x%$y) . "<br />");
9 ?>
```



localhost/new3.php

x+y=9
x-y=5
x*y=14
x/y=3.5
x%y=1

While Loops

```
C:\AppServ\www\While_Loop.php - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins
Fom1.html Database_Connection.php example1.php file1.php file2.php
1 <?php
2 $i=1;
3 while ($i<=10)
4 {
5 echo ($i."<br/>");
6 $i=$i+1;
7 }
8 ?>
```

```
localhost/While_Loop.php
localhost/While_Loop.php
1
2
3
4
5
6
7
8
9
10
```

Do While Loops

```
C:\AppServ\www\While_Loop.php - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
Form1.html Database_Connection.php example1.php file1.php file2.php index.php
1 <?php
2 #do...while Loops
3 $i=1;
4 do
5 {
6     echo ($i."<br/>");
7     $i=$i+1;
8 }
9 while ($i<=10);
10 ?>
```

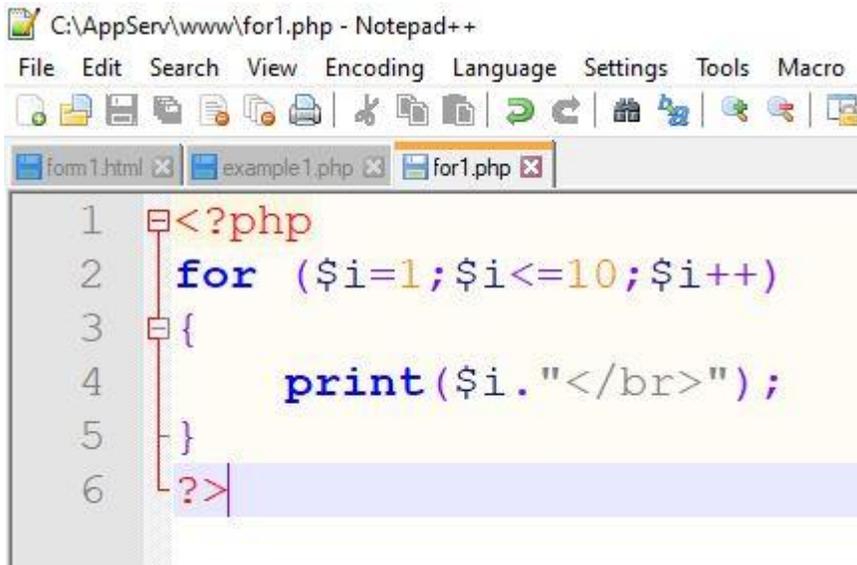
localhost/While_Loop.php

localhost/While_Loop.php

```
1
2
3
4
5
6
7
8
9
10
```

c

For Loops

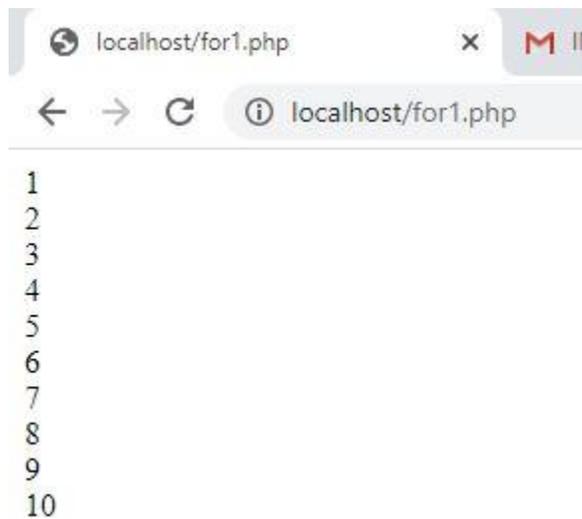


C:\AppServ\www\for1.php - Notepad++

File Edit Search View Encoding Language Settings Tools Macro

form1.html x example1.php x for1.php x

```
1 <?php
2 for ($i=1;$i<=10;$i++)
3 {
4     print ($i."</br>");
5 }
6 ?>
```



localhost/for1.php x M IT

← → ↻ ⓘ localhost/for1.php

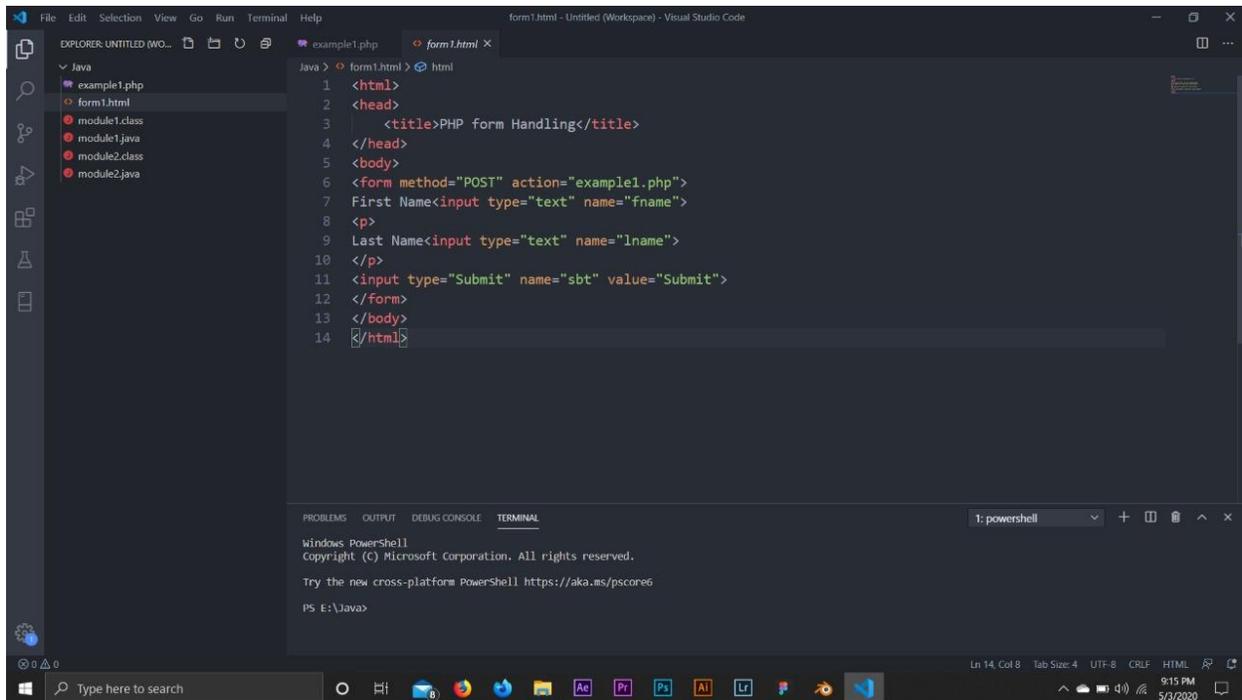
```
1
2
3
4
5
6
7
8
9
10
```

Forms

❖ METHOD 1

● Step 1

- Create a file named **Form1.html** as shown in the figure



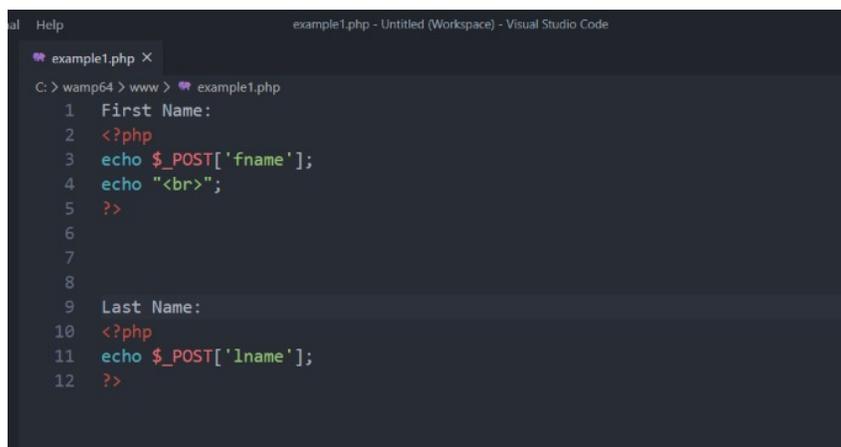
The screenshot shows the Visual Studio Code editor with a file named `form1.html` open. The code is as follows:

```
1 <html>
2 <head>
3   <title>PHP form Handling</title>
4 </head>
5 <body>
6 <form method="POST" action="example1.php">
7   First Name<input type="text" name="fname">
8 <p>
9   Last Name<input type="text" name="lname">
10 </p>
11 <input type="Submit" name="sbt" value="Submit">
12 </form>
13 </body>
14 </html>
```

The terminal at the bottom shows the PowerShell prompt: `PS E:\Java>`

● Step 2

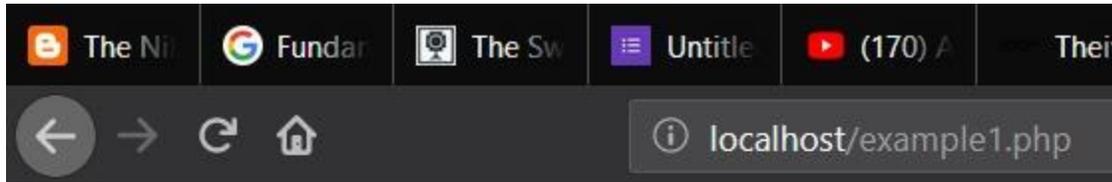
- Then create a file named `example1.php`



The screenshot shows the Visual Studio Code editor with a file named `example1.php` open. The code is as follows:

```
1 First Name:
2 <?php
3 echo $_POST['fname'];
4 echo "<br>";
5 ?>
6
7
8
9 Last Name:
10 <?php
11 echo $_POST['lname'];
12 ?>
```

- Step 3
 - Open the file **Form1.html** browser and enter the data in the form



First Name: rgr
Last Name: dvd

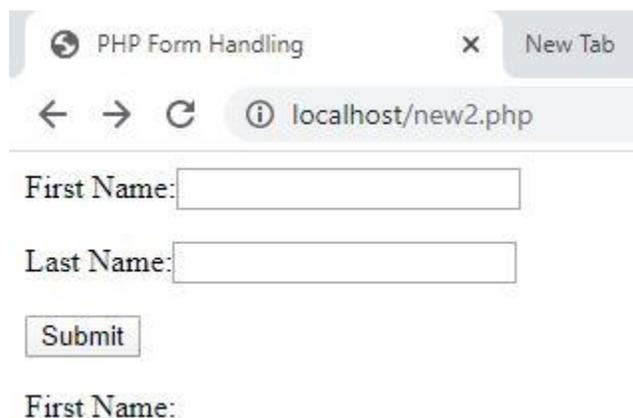
❖ METHOD 2

• step 1

```
1 <html>
2 <head>
3     <title>PHP Form Handling</title>
4 </head>
5 <body>
6     <form method="POST" action="new2.php">
7         First Name:<input type="text" name="fname">
8     <p>
9         Last Name:<input type="text" name="lname">
10    </p>
11    <input type="Submit" name="Sbt" value="Submit">
12 </form>
13
14    First Name:
15    <?php
16    echo $_POST['fname']|
17    ?>
18    <?php
19    echo $_POST['lname']
20    ?>
21 </body>
22 </html>
```

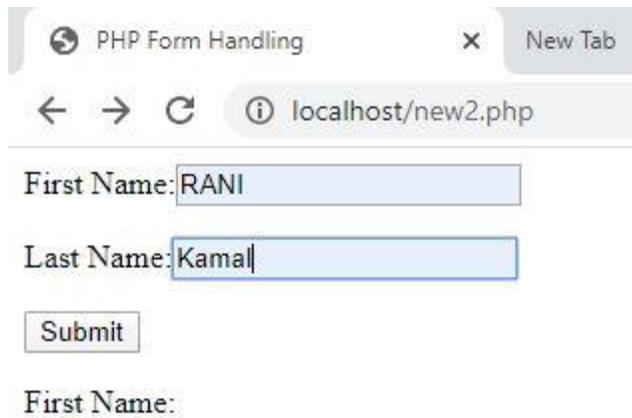
• Step 2

- Save and type “localhost/yourfilename.php” on the browser Address bar as below.



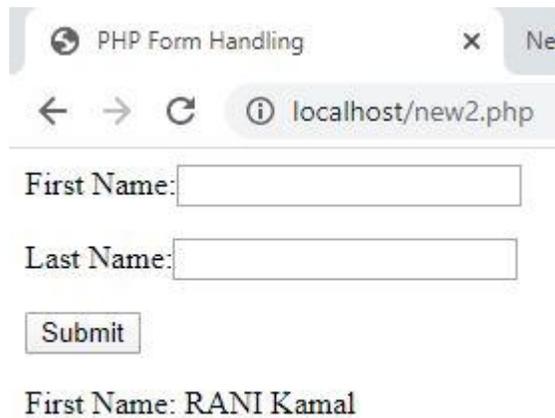
The screenshot shows a web browser window with the title "PHP Form Handling" and a "New Tab" button. The address bar displays "localhost/new2.php". Below the address bar, there is a form with two text input fields labeled "First Name:" and "Last Name:", and a "Submit" button. Below the form, the output of the PHP script is displayed, showing "First Name:" followed by an empty space, indicating that the form has been submitted but the data has not yet been processed or displayed.

- Step 3
 - Enter the Details and submit it



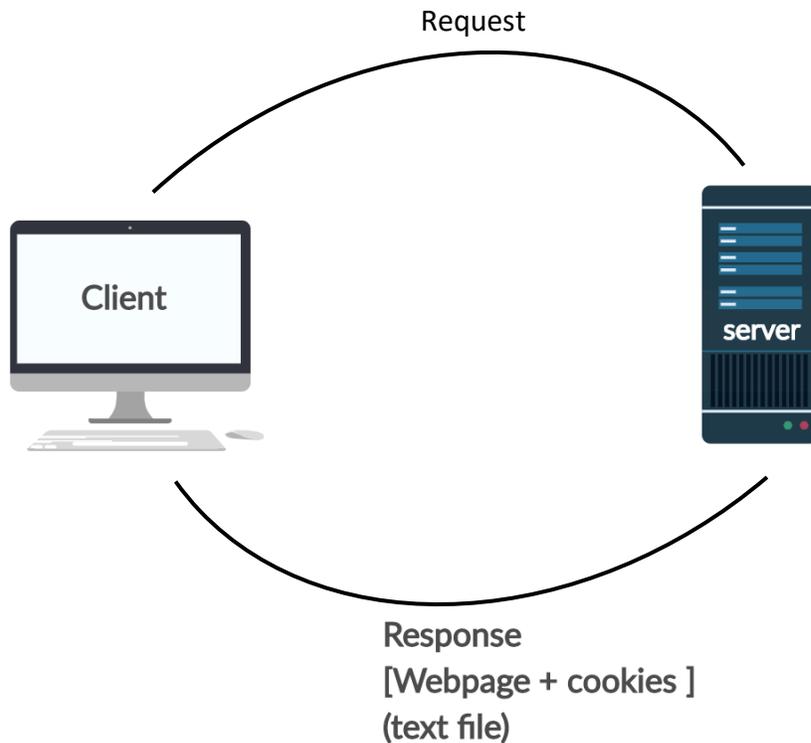
A screenshot of a web browser window titled "PHP Form Handling" with a "New Tab" button. The address bar shows "localhost/new2.php". The form contains two input fields: "First Name:" with the value "RANI" and "Last Name:" with the value "Kamal". Below the fields is a "Submit" button. Below the button, the text "First Name:" is visible, indicating the start of the output.

- Step 4
 - Output



A screenshot of a web browser window titled "PHP Form Handling" with a "New Tab" button. The address bar shows "localhost/new2.php". The form fields are empty. Below the "Submit" button, the output "First Name: RANI Kamal" is displayed.

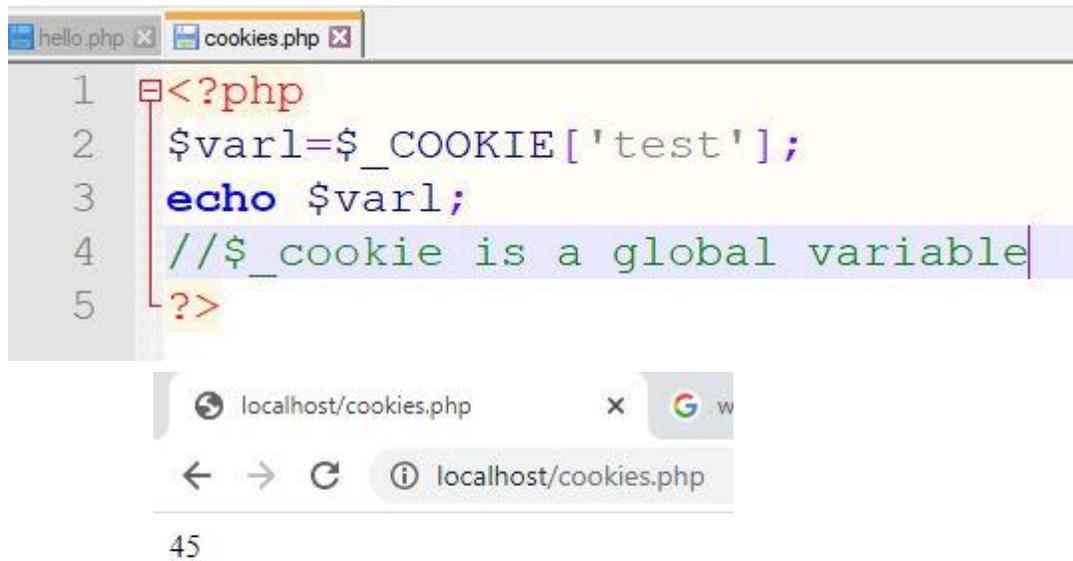
Cookies and Sessions



❖ Cookie

```
1 <?php
2 setcookie('test', 45, time()+(60*60*24*7));
3 //This cookie will expire after 7 days Automatically
4 echo "cookie executed successfully"
5 ?>
```





```
1 <?php
2 $var1=$_COOKIE['test'];
3 echo $var1;
4 //$_cookie is a global variable
5 ?>
```

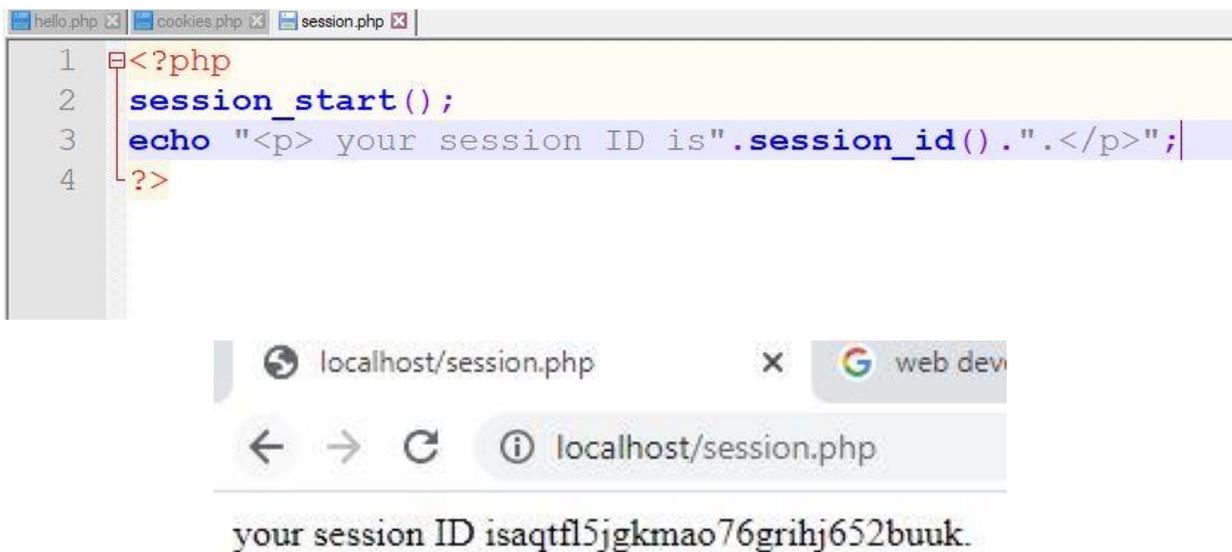
localhost/cookies.php

45

❖ Session

- Session ID

1.



```
1 <?php
2 session_start();
3 echo "<p> your session ID is".session_id()."</p>";
4 ?>
```

localhost/session.php

your session ID isaqtf15jgkmao76grihj652buuk.

2.

```
1 <?php
2 session_start();
3 $_SESSION["product1"]="Sonic screw driver";
4 $_SESSION["product2"]="HAL 2000";
5 echo "The products has been registered";
6 ?>
```



The products has been registered

3.

```
1 <?php
2 session_start();
3 echo "Your choosen pproducts are";
4 echo "<ul>";
5 echo "<li>".$_SESSION["product1"]."</li>";
6 echo "<li>".$_SESSION["product2"]."</li>";
7 ?>
```



Your choosen pproducts are

- Sonic screw driver
- HAL 2000

Array

1.

```
array.php x
1 <?php
2 $cars=array("saab","Volvo","BMW","Toyota");
3 //Array declaration
4 echo $cars[2];
5 //Accessing of elements using Index
6 ?>
```

localhost/array.php x M

localhost/array.php

BMW

2.

```
array.php x
1 <?php
2 $cars=array("saab","Volvo","BMW","Toyota");
3 foreach($cars as $value)
4 {
5     echo $value."<br/>";
6 }
7 ?>
```

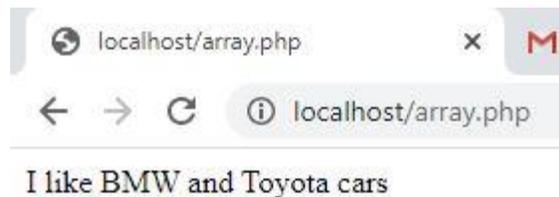
localhost/array.php x M

localhost/array.php

saab
Volvo
BMW
Toyota

3.

```
array.php x
1 <?php
2 $cars[0]="Saab";
3 $cars[1]="Volvo";
4 $cars[2]="BMW";
5 $cars[3]="Toyota";
6 echo "I like"." ".$cars[2]." ". "and " . $cars[3]." ". "cars";
7 ?>
```



4.

```
array.php x
1 <?php
2 $ages['Peter']="32";
3 $ages['Quagmire']="30";
4 $ages['Joe']="34";
5 echo "Peter is " . $ages['Peter'] . " years old";
6 ?>
```



- PHP ஆனது பயனர் பெறுவழிகளை கட்டுப்படுத்துவதற்கு பயன்படுத்தப்பட முடியும்
- தரவுகளை மறைகுறியாக்குவதற்கு (Encryption) PHP பயன்படுத்தப்பட முடியும்.
- PHP ஆனது வேறுபட்ட பணி செயன்முறைகளின் இயங்கக் கூடியது. (Windows, Linux, MacOSx)
- PHP ஆனது பெரும்பாலான வலை சேவையகங்களில் இயங்கக்கூடியது. (Apple, IIS)
- PHP பெரும்பாலான தரவுத்தளங்களுக்கு ஆதரவு வழங்கக் கூடியது.

Connecting MySQL to PHP

1. mysql_connect()

- தொடர்ச்சியாக தேவைப்படாத MYSQL இணைப்பிணை திறத்தல்/ஏற்படுத்துதல்

2. mysql_close()

- தொடர்ச்சியாக தேவைப்படாத MYSQL இணைப்பிணை நீக்குதல்/முடிவுறுத்தல்.

3. mysql_error()

- MYSQL செயற்பாட்டினது வழக்கள் தொடர்பான விபரங்களை திரும்பலாக தருகிறது.

4. mysql_fetch_array()

- அட்டவணையிலிருந்து நிரைகளை(rows) வரிசையாக (array) தருகின்றது

5. mysql_query()

- MYSQL தரவுத்தளத்தில் வினவல்களை (query) நிறைவேற்றுகிறது

6. mysql_select_db()

- செயலாக்கமுள்ள MYSQL தரவுத்தளத்தினை திறத்தல்/ஏற்படுத்துதல்

7. mysql_ASSOC

- அட்டவணையின் நிரல்கள் அவற்றின் புலங்களின் பெயர்களுடன் ஓர் அணியாக (Array) பெறப்படும்.

8. die()

- செய்தியினை காட்சிப்படுத்தல்
- இது பாடச்செய்திகளை (String/Text) மாத்திரம் காட்சிப்படுத்த பயன்படும்