

WEB APPLICATION DEVELOPMENT

09/11/2021lec2

HTML TAGS

- | | |
|---------------------------|---|
| 1)
 | break the line. There's no close tag for
. |
| 2) <i> | Italic |
| 3) <u> | underline |
| 4) <h1> | font size. H1 to h6 |
| 5) <body bgcolor> | background color of the body |
| 6) | font color |
| 7) | unordered list |
| 8) | list |
| 9) <ul type="square"> | square type. (Other types are disk and circle) |
| 10) | ordered list |
| 11) <ol type="i" start=5> | list type is i, ii, iii, and it's starting with v |
| 12) <dl> | description list |
| 13) <dt> | define terms/names |
| 14) <dd> | describe each term or name |
| 15) | insert an image |
| 16) <center> | get to center |
| 17) <p align="left"> | get to left (same as right) |
| 18) | break space |

[illegible]

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Inserting a table

19. <table border> to draw the table border
20. <tr height> height of the raw
21. <td width> table data width
22. <td><center></td> get to the center
23. insert a link
24. insert a link with a picture

25. <input type="submit" name="x" value="click">
26. <input type="text" name="C" placeholder="name">

27. <input type="password" name="H" placeholder="password">

28. <input type="radio" name="g" value="female">Female
<input type="radio" name="g" value="male">Male
29. <input type="checkbox" name="a" value="ol">O/L
<input type="checkbox" name="b" value="al">A/L
<input type="checkbox" name="c" value="dip">Diploma
30. <select name="r">
<option value="1">srilanka</option>
<option value="1">india</option>
<option value="1">china</option>
</select>
31. <input type="button" name="nn" value="click">
<input type="submit" name="b" value="click1">
<input type="reset" name="nn" value="clear">

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

<table border=1>
<tr height=200>
<td width=200>A</td>
<td width=200 bgcolor="blue">B</td>
</tr>
<tr height=200 bgcolor="pink">
<td><center>C</center></td>
<td>D</td>
</tr>
</table>

<a href="https://www.nsbm.ac.lk">NSBM</a>

<a href="https://www.nsbm.ac.lk">

</a>

<form name="g" method="post"
action="secday.html">

<input type="submit" name="x" value="click">

Name: <input type="text" name="C"
placeholder="name"><br>

password: <input type="password" name="H"
placeholder="password"><br>

Gender:
<input type="radio" name="g"
value="female">Female
<input type="radio" name="g" value="male">Male

Qualification
<input type="checkbox" name="a" value="ol">O/L
<input type="checkbox" name="b" value="al">A/L
<input type="checkbox" name="c"
value="dip">Diploma

<select name="r">
<option value="1">srilanka</option>
<option value="1">india</option>
<option value="1">china</option>
</select>

<input type="button" name="nn" value="click">
<input type="submit" name="b" value="click1">
<input type="reset" name="nn" value="clear">

</form>

</body>
</html>
```

- CSS stand for cascading style sheets.
- Styles define for XHTML elements and markup should be displayed by the browser.

All styles will “cascade” into a new virtual style sheet in the following rule order, where number four has the highest priority:

- 1) Browser default
- 2) External style sheet

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

- 3) Internal style sheet
(Inside the <head> tag) (<style> tag)
- 4) Inline style (inside HTML element)

```
<html>

<head>
<title> NSBM</title>
<link rel="stylesheet" href="a.css">
</head>
<body>
<h1 style="color:green;text-align:center;">nsbm</h1>
<h1>New nsbm</h1>
<h1>New nsbm</h1>
<h1>New nsbm</h1>
<h1>New nsbm</h1>
</body>
</html>
```

```
h1
```

```
{
color: pink;
}
```

```
<html>
<head>
<title>NSBM</title>
<style>
.n
{
color:red;
}

#xyz
{
color:blue;
text-align:center;
}
</style>
</head>
<body>

<h1 id="xyz">nsbm</h1>

<h1 class="n" id="xyz">nsbm</h1>

<h1>nsbm</h1>

<h1 class="n">nsbm</h1>

<h1>nsbm</h1>

<p class="n">green university</p>

</body>
</html>
```

Q] Create a page with nsbm logo at the center but when the content is moving, logo should stay at the same position.

```
<!DOCTYPE html>

<html lang="en">
  <head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <link rel="stylesheet" href="style.css">
    <title>Document</title>
  <body>
    <div class="text">
      paragraph***
```

body

```
{
  background-image: url("p1.png");
  background-position: center;
  background-size: 300px 100px;
  background-repeat: no-repeat;
  background-attachment: fixed;
}
h1
{
  color:rgb(224, 121, 169);
}
.text{
  text-align: center;
  font-size: 2rem;
  position: absolute;
}
```

```
<html>
<head>
<title>NSBM</title>
<style>
h1.rdu
{
color:red;
text-decoration:underline;
}
</style>
</head>
<body>

<h1 class="rdu">nsbm</h1>
<h1 id="g">nsbm</h1>
<h1>nsbm</h1>
<h1>nsbm</h1>
<h1 class="rdu">nsbm</h1>
<h1>nsbm</h1>
<h1>nsbm</h1>
<h1>nsbm</h1>
<h1 class="rdu">nsbm</h1>
<p class="rdu">chamali </p>

</body>
</html>
```

JAVASCRIPT

DHTML

- ♥ DHTML is a grouping of technologies used to create interactive web pages.
- ♥ DHTML is not a special version of HTML or even a version of HTML at all. Instead, it consists of a combination of the following three web technologies.
 - HTML
 - CSS
 - Web Scripting
- ♥ This combination is that it allows you to change the HTML code for a web page after the page has been loaded and displayed in a web browser.
- ♥ Using DHTML you can interact with the user and alter the content of a page at any time.

Web Scripting

- ♥ Two main scripting languages in use
 - JavaScript
 - VBScript

Advantages of JavaScript

- ♥ JavaScript is a scripting language used to create dynamic web pages.
- ♥ JavaScript is a lightweight programming language.
- ♥ A JavaScript consists of lines of executable computer code.
- ♥ A JavaScript is usually embedded directly into HTML pages.
- ♥ As a scripting language JavaScript is interpreted and not compiled.

Integrating JavaScript with HTML

- ♥ There are two ways to embed a JavaScript in an HTML documents:
 - By using the HTML <script> tag.
 - By using HTML tags to handle events.

Comments

- ♥ Comments are written between the <!-- and --> symbols

Printing Hello World

```
<html>
  <title>nsbm</title>
  <body>
    <script language="javascript" type="text/javascript">
      document.write("hello World")
    </script>
  </body>
</html>
```

Q] Create a program to get two integer inputs from the user and display the answers for four basic arithmetic operations.

```
<script language="javascript" type="text/javascript">
  var test1 = 6;
  var test2 = 2;
  test3 = test1+test2;
  document.write("addition is " +test3, "<br>");

  test4 = test1-test2;
  document.write("subtraction is " +test4, "<br>");

  test5 = test1*test2;
  document.write("multiplication is " +test5, "<br>");

  test6 = test1/test2;
  document.write("division is " +test6, "<br>");
</script>
```

JavaScript Popup Boxes

- ❖ An alert box

```
<script language="javascript" type="text/javascript">
    alert("Welcome")
</script>
```

- ❖ Prompt box

```
<script language="javascript" type="text/javascript">
    prompt("Enter your name", "name")
</script>
```

JavaScript functions

- ♥ A function is a reusable code-block that will be executed by an event, or when the function is called.
- ♥ You may call a function from anywhere within the page (or even from other pages if the function is embedded in an external .js file).
- ♥ Functions can be defined both in the <head> and in the <body> section of a document.

```
<html>
  <head>
    <script language="javascript" type="text/javascript">
      function x(s)
      {
        document.write("welcome "+s);
      }
    </script>
  </head>
  <body>
    <script language="javascript" type="text/javascript">
      s=prompt("enter name","");
      x(s);
    </script>
  </body>
</html>
```



```

<html>
  <head>
    <script language="javascript" type="text/javascript">
      function x()
      {
        alert("welcome" );
      }
    </script>
  </head>
  <body>
    <input type="button" value="click" onClick="x()">
  </body>
</html>

```

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JavaScript functions

- ♥ A function is a reusable code-block that will be executed by an event, or when the function is called.
- ♥ You may call a function from anywhere within the page (or even from other pages if the function is embedded in an external .js file).
- ♥ Functions can be defined both in the <head> and in the <body> section of a document.

```

<script language = "JavaScript" type="text/javascript">
  function sayHello()
  {
    window.alert("Hello and welcome");
  }
</script>
</head>
<body>
  <script language = "JavaScript" type="text/javascript">
    sayHello();
  </script>

```

Handling events

- ♥ Events are actions that can be detected by JavaScript.
- ♥ By using JavaScript, we have the ability to create dynamic web pages.
- ♥ Every element on a web page has certain events which can trigger JavaScript functions.

JavaScript events

- ♥ Events include such activities.
 - Mouse clicks
 - Mouse movements
 - Pressing keyboard keys
 - Opening and closing windows
 - Resizing windows
- ♥ Browser recognize events and perform default actions when those events occur.

Event handler

- ♥ Is a trap that recognize the occurrence of a particular type of event.
- ♥ When an event occurs for a given object, its event handler executes.

<u>Event</u>	<u>event handler</u>
❖ Load	onload
❖ Click	onClick
❖ Resize	onResize

Mouse events

- ♥ OnClick – user clicks the element with the left mouse button
- ♥ OnDbclick – user double clicks the element with the left mouse button
- ♥ Onmousedown – user presses either mouse button while the mouse pointer is over the element.
- ♥ Onmouseup – user releases either mouse button while the mouse pointer is over the element.
- ♥ Onmouseover – user moves the mouse pointer into boundaries of the element.
- ♥ Onmousemove – user moves the moves pointer while the pointer is over the element
- ♥ Onmouseout – user moves the mouse pointer out of the boundaries of the element.

```

<script language="JavaScript" type="text/javascript">
    function x()
    {
        document.body.style.backgroundColor="pink"
    }
    function y()
    {
        document.body.style.backgroundColor="blue"
    }
</script>
</head>
<body>
    <a href="www.nsbm.ac.lk" onmouseover="x()"
        onmouseout="y()">NSBM WEB</a>
</body>

```

```

<script type="text/javascript">
    function displaymessage()
    {
        alert("hello world");
    }
</script>
</head>
<body>
    <form>
        <input type="button" value= "Click me!" onclick = "displaymessage()">
    </form>
</body>

```

Object based programming with JavaScript

- ♥ JavaScript focuses on supporting web-based content using object models.
- ♥ Object

An object is a construct such as a browser window or form button that manages its own attributes, or properties and that also provides methods that can be used to manipulate the object and its data.

Object properties	Object methods
JavaScript properties are either JavaScript variables or other objects.	a method is a function provided by an object for the purpose of working with the object.
Eg: form object is a property of the document object	eg: data object supplies the method <code>getDay()</code> , <code>getHours()</code> , <code>getMinutes()</code> that you can use to extract information from the objects
<code>Object.property</code>	<code>object.method(p1,p2,.....,pn)</code>
	<code>Document.write()</code> The <code>write ()</code> method of the document object

Common date methods

✚ Today = `new Date();`
 ✚ the_date = `Today.getDate();`
 ✚ the_day = `Today.getDay();`
 ✚ the_year = `Today.getFullYear();`
 ✚ the_hour = `Today.getHours();`
 ✚ the_month = `Today.getMonth();`
 ✚ the_minute = `Today.getMinutes();`
 ✚ the_second = `Today.getSeconds();`
 ✚ the_time = `Today.getTime();`
 ✚ the localYear = `Today.getFullYear();`

```

<script language= "JavaScript" type="text/javascript">
    TodaysDate = new Date();
    document.write("Today's date is: " + TodaysDate);
    var MyYear = TodaysDate.getFullYear();
    document.write("This year is: " + MyYear);
</script>

```

window object

window object has dozens of objects and methods associated with it.

- window.alert()
- window.prompt()
- window.confirm()
- window.open()
- window.close()
- window.resizeTo(x,y)

using JavaScript to manage forms

form validation

the real benefit of using JavaScript with your forms is to perform validation of user input.

Validation allows you to ensure that the user has filled in all required fields and that valid data has been entered in those fields.

Document object

each web page can contain a single document object.

- ♥ document.write() → write output to the screen
- ♥ bgColor → specifies the document background color.
- ♥ fgColor → specifies the color of document text.
- ♥ LinkColor → specifies the color of links
- ♥ alinkColor → specifies the color of links
- ♥ vlinkColor → specifies the color of visited links

using JavaScript to manage forms

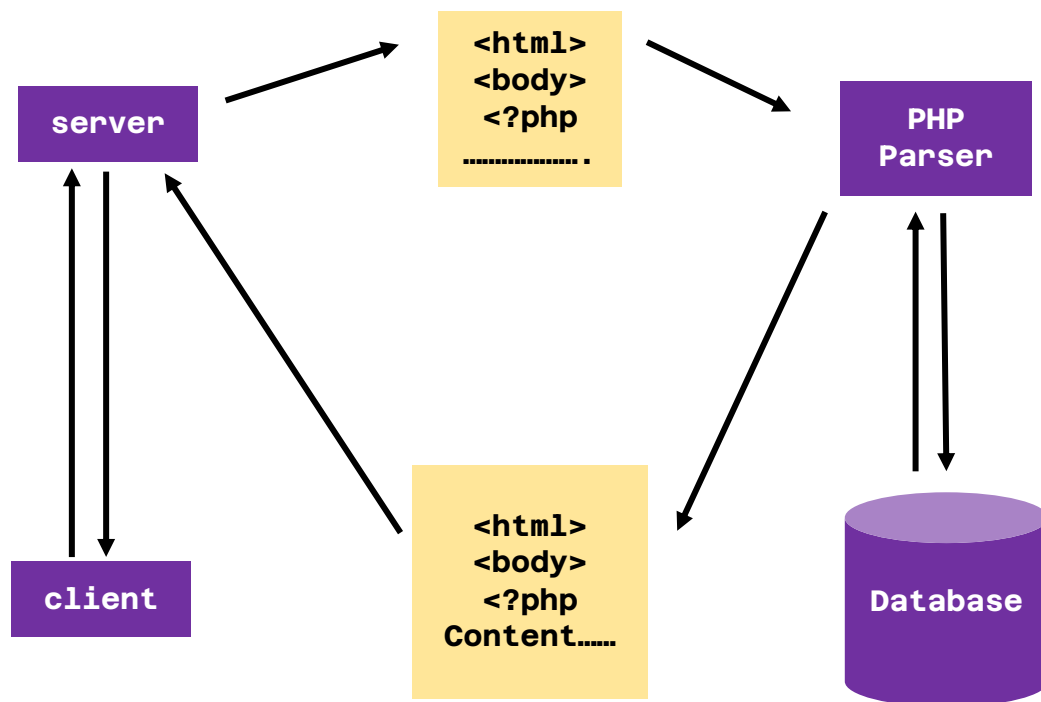
- ♥ form validation
- ♥ the real benefit of using JavaScript with your forms is to perform validation of user input. Validation allows you to ensure that the user has filled in all required fields and that has been entered in those fields.

Q] username should not be empty and password should contain 6 characters.

```
<html>
  <head>
    <title>Name</title>
    <script language= "JavaScript" type="text/javascript">
      function Validatetext()
      {
        if((document.f1.un.value.length <
1)&&(document.f1.pass.value.length<1))
        {
          window.alert("missing content!! please correct");
          return;
        }
        if(document.f1.pass.value.length < 6)
        {
          window.alert("password should be 6 characters");
          return;
        }
      }
    </script>
  </head>
  <body>
    <form method=post name="f1">
      <b> Username: </b>
      <input name="un" type="text" size="15" maxlength="20" value=""><br>
      <b> Password: </b>
      <input name="pass" type="text" size="15" maxlength="20" value=""><br>
      <input type="button" value="Validate" onclick="Validatetext()">
    </body>
  </form>
</html>
```

PHP

- ♣ PHP is a server-side scripting language for creating dynamic and interactive web pages.
- ♣ I.e. Code is executed on the server.
- ♣ A PHP page will generally contain PHP elements with HTML tags and other textual content.
- ♣ PHP is case sensitive.



All PHP code must be included inside one of the following markup tags.

- `<?php php code ?>`
- `<? Php code ?>`
- `<script language = "php"> php code </script>`

Q] Write a PHP page to print the message "Hello world".

```
<html>
<body>
<h1>MY first PHP Page</h1>
<?php
echo "<h2>Hello World</h2>";
?>
</body>
</html>
```

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Q] write NSBM in red color

```
<html>
<body>
<?php
echo "<b><u><font color=red>NSBM</font></u></b>";
?>
</body>
<html>
```

Variables

All variables must begin with a dollar (\$) sign followed by a meaningful name.

The name can contain any letter, number or the underscore, but the name cannot begin with a number.

Eg: \$abc

 \$my_abc

 \$var123

Arrays

The array() function can be used to define an array.


```
$array_name = array("value1", "value2",...)
```

```
<html>
<body>
<h1> PHP with array1</h1>
<?
$colors =array("Fire"=> "Red", "Sea"=> "Blue");
$col = $colors["Sea"];
echo "<h2>The Sky is $col<h2>";
?>
</body>
</html>
```

Q] create a form to enter your name and display welcome + your name, using PHP.

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

      <form name="g" method="post" action="csr.php">
        Username: <input type="text" name="C" placeholder="name"><br><br>
        <input type="submit" name="x" value="submit">
      </form>

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

```
<?php
  $abc=$_REQUEST["C"];
  echo "welcome $abc";
?>
```

Q] create a form with HTML and PHP.

```
<html>
  <head>
    <title>nsbm</title>
    <body>
      <form name="g" method="post" action="form.php">

        Name: <input type="text" name="C"
        placeholder="name"><br><br>

        password: <input type="password" name="H"
        placeholder="password"><br><br>

        Gender:
        <input type="radio" name="g" value="female">Female
        <input type="radio" name="g" value="male">Male<br><br>

        Qualification
        <input type="checkbox" name="a" value="ol">O/L
        <input type="checkbox" name="b" value="al">A/L
        <br><br>

        country:
        <select name="r">
          <option value="1">srilanka</option>
          <option value="1">india</option>
          <option value="1">china</option><br>
        </select><br><br>

        <input type="submit" name="x" value="submit">
        <input type="reset" name="nn" value="clear">
      </form>
    </body>
  </head>
</html>
```

```
<?php
    $a=$_REQUEST["C"];
    $b=$_REQUEST["H"];
    $c=$_REQUEST["g"];
    $d=$_REQUEST["a"];
    $e=$_REQUEST["r"];

    echo "name : $a<br>";
    echo "password: $b<br>";
    echo "Gender : $c<br>";
    echo "qualification : $d<br>";
    echo "country : $e<br>";
?>
```

Database connectivity

```
<?php
$server="localhost";
$user = "root";
$pw = "";
$db = "web1";

$conn = new mysqli("localhost","root","", "web1");

if($sconn->connect_error)
{
    die("Connection failed:".$conn->connect_error);
}
else
{
    echo "success";
}
?>
```

Q] create a PHP program to receive the name from a text box and to insert the name and the system time to the database.

Q] create a PHP program to edit the name which was entered earlier? (get the old name & new name from the user)

Q] create a PHP program to delete the specific record from the database.