HTML

Date No

<html> → open tag
</html> → close tag

How to use brackets

([{ }])

* Head section is used for setting related things, topics, search engines.

Basic Structure of HTML

```
<html>
<head>
<title> NSBM WEB </title>
</head>
<body> NSBM Green University </body>
</html>
```

Heading Tag - 6 different headings.

```
<h1> NSBM </h1> → largest
<h2> NSBM </h2>
<h3> NSBM </h3>
<h4> NSBM </h4>
<h5> NSBM </h5>
<h6> NSBM </h6> → smallest
```

Date No

Underline

<u> NSBM </u>

Bold

 NSBM

Italic

 NSBM

Attributes

<body bgcolor = "red" >

<body bgcolor = "#AA0044" >

Red in hexa decimal — Green in hexa decimal — Blue in hexa decimal

Font Tag

NSBM

Date No

Additional Spaces

NSBM   green university

1space 1space 1space

*nbsp = no braking space

Next Line

NSBM
 Green
 University

*no close tag for

Paragraph

 NSBM Green University

Ex:

NSBM Green University - Heading 1 / Red color / Arial font
Mahenwatte - Paragraph / Blue color / Impact font
Pitipana - Paragraph / Blue color / Impact font
0115445000 - Paragraph / Blue color / Impact font / Underline

Date No

```
<html>
<head>
<title>nsbm</title>
</head>
<body>
<h1><font face="arial" color="red"> NSBM
Green University </font></h1><br>
<p><font color="blue" face="impact">1
Mahenwatte <br>
Pitipana <br>
0115445000 </font></p>
<body>
</html>
```

Background Image.

name & format of image.

```
<body background="1.jpg">
```

Background Image Size

```
<img src="2.jpg" width=200 height=100 alt="nsbm">
```

name & format of image

appears when the image doesn't load.

Date No

Website Name

* <a> → hyperlink.

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

Webpage Name

```
<a href="3.html"> nsbm
</a>
```

Ex:

```
<html>
<head>
<title>nsbm</title>
</head>
<body>
<a href="3.html">
<img src="1.png" width=100 height=100>
</a>
</body>
</html>
```

Crystal Tab

```
<ul type="circle">
<li> circle
</li>
<ul type="square">
<li> circle </li>
<li> square </li>
<li> disc </li>
</ul >
<li> square </li>
<li> disc </li>
</ul>
```

Ordered List

```
<ol>
<li> nsbm </li>
<li> nsbm </li>
<li> nsbm </li>
</ol>
```

Unordered List

Date No

```
<ul>
<li> nsbm </li>
<li> nsbm </li>
<li> nsbm </li>
</ul>
```

Output:

- Circle
  - Circle
  - Square
  - Disc
- Square
- Disc

Output:

1. nsbm
2. nsbm
3. nsbm

Date No

Numbered List

starting number

```
<ol type="A" start=200>
<li> nsbm </li>
<li> nsbm </li>
<li>nsbm </li>
</ol>
```

Output:

A. nsbm
B. nsbm
C. nsbm

① Definition List

```
<dl>
<dt> nsbm </dt>
<dd>national school of business management </dd>
<dt> nsbm </dt>
<dd> national school of business management </dd>
</dl>
```

Table Tag

```
<table> or <table border = 1 >
<tr>
<th> Name </th> <th> RNO </th>
</tr>
<tr>
<td>Ravi</td> <td> 4 </td>
</tr>
```

Output:

Name	RNO
Ravi	4

Date No

Ex:

RNO	Name	
1	R	
2		
3	S	R

```
<html>
<head>
<title>nsbm</title>
</head>
<body>
<table border = 1>
<tr>
<th>RNO</th> <th colspon=2>Name</th>
</tr>
<tr>
<td>1</td><td rowspan=2 colspan=2>R</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td><td>S<td>R</td>
</table>
</body>
</html>
```

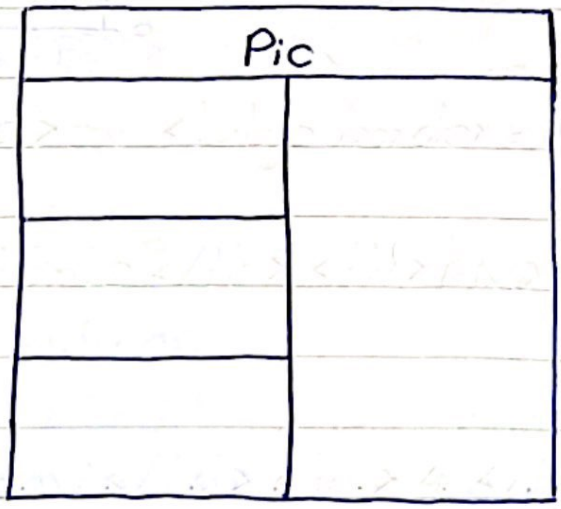
*How to align

Date No

Control Tags (Div Tag / Span Tag)

```
<div>
sdojkfhsjkd
</div>
```

Ex:



Date No

ProMate

Date No

Form.

data will be stored somewhere else.

data will be stored here

```
<Form name = "reg" method = "post" action = "nsbm.php">
User Name : [          ]
<input type = "text" name = "nme" placeholder = "Name"><br>
Password : [          ]
<input type = "password" name = "pass" placeholder = "Name">
<input type = "submit" name = "b1" value = "click">
```

submit → action will be performed

button → no action → to be programmed to perform

```
<input type = "reset" name = "c1" value = "clear">
</form>
```

Radio Button.

Gender: ○ Male ○ Female

```
<input type = "radio" name = "g" value = "M" > Male
<input type = "radio" name = "g" value = "F" > Female
```

give same name to select one

For DB purpose (not for display)

Check box

Qualifications:

```
< input type = "checkbox" name = "p" value = "ol" > O/L
< input type = "checkbox" name = "q" value = "al" > A/L
< input type = "checkbox" name = "r" value = "ug" > Bachelor
```

use different names

Date No

Select List

Country:

```
<select name = "country">
<option value = 0 > Select </option>
<option value = 1 > Sri Lanka </option>
<option value = 2 > India </option>
<option value = 3 > China </option>
</select>
```

First one is the default.

Text Area

Date No

Ex:

Form

User name: [ ]

Password: [ ]

Retype Password: [ ]

Gender: ○ Male ○ Female

Qualifications ☐ O/L ☐ A/L ☐ Bachelor

Country

Address: [ ]

Country: [Select]

Submit Clear

Date No

CSS

Date No

4 different Styles.

01.) Browser default style.
02.) Inline style. (within html tag)
03.) Internal style. (within the page)
04.) External style. (outside the page)

01.) Browser Default Style.

```
<h1>nsbm</h1>
```

*color, size, font → default

02.) Inline Style.

property, value, seperator

```
<h1 style = "color: red;">nsbm</h1>
```

```
<h1 style = "color:red; Font-Family: arial;">nsbm
</h1>
```

*no spaces allowed. Use -.

```
<h1 style = "color: red; Font-Family: arial; text-align: center;
>nsbm</h1>
```

Date No

03.) Internal Style.

* Inside head section

```
<head>
<style>
h1
{
color:red;
text-align:center;
}
</style>
</head>
<body>
<h1>nsbm</h1>
<h1>nsbm</h1>
<h1>nsbm</h1>
</body>
```

```
<head>
<style>
h1
{
color:red;
text-align:center;
}
```

Date No

```
</style>
</head>
<body>
<h1>nsbm </h1>
<h1 style="color:blue;">nsbm </h1>
<h1>nsbm</h1>
```

* Inline vs Internal
↑
Powerful

04.) External Style.

* Inside head section

```
<head>
<link rel="stylesheet" href="new.css">
</head>
```

can be any name

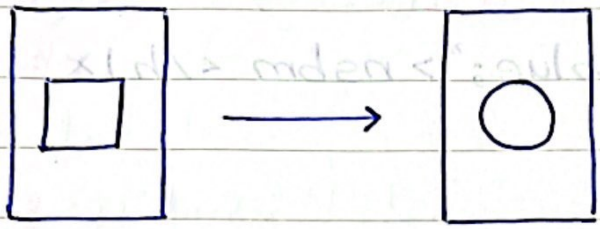
new.css File → inside the same Folder.

```
h1
{
color:red;
}
```

Advantage of external style is number of files can be controlled by 1 CSS file.

Date No

(01.) Create a html page. Include a photo. Applying CSS, output should be center aligned and displayed as a profile picture. (Circle border)



html

```
<html>
<head>
<title>nsbm</title>
<link rel="stylesheet" href="nsbm.css">
</head>
<body>
<center><img src="nsbm.jpg"></center>
</body>
</html>
```

css

```
img
{
border-radius: 50%;
}
```

Date No

(02.) Create a html page. Using html place NSBM logo at the center of page. Using CSS; logo should be center aligned. Logo cannot be duplicated. (Icopy) Logo should be fixed in the center. Only content should be scrolled.

Date No

(01.) Create a HTML page with a heading (h1) and use inline CSS to make it Red color and underline.

```
<html>
<head>
<title>nsbm</title>

</head>
<body>
<h1 style="color:red; text-decoration:underline;">
                                    NSBM</h1>

</body>
</html>
```

(02.) Create a HTML page with 4 lines of "NSBM" in Red color using internal CSS.

```
<html>
<head>
<title>nsbm</title>
<style>
H1
    {
color:red;
}
```

```
</style>
</head>
<body>
<h1> NSBM </h1>
<h1> NSBM </h1>
<h1> NSBM </h1>
<h1> NSBM </h1>
</body>
</html>
```

Classes

* For grouping purposes.
* Using dot (.)

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

```
<h1> NSBM </h1>
<h1> NSBM </h1>
<h1 class = "r"> NSBM </h1>
<h1 class = "r" > NSBM </h1>
</body>
</html>
```

Combine Classes.

```
<html>
<head>
<title>nsbm</title>
<style>
h1.r
{
color: red;
}
h1.g
{
text-decoration: underline;
}
</style>
</head>
<body>
<h1> NSBM </h1>
<h1> NSBM </h1>
<h1 class = "r g" > NSBM </h1>
<h1 class = "r" > NSBM </h1>
```

space

Date No

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

* Use just a space between classes.
* no space between class names.

ID

* ID can be used instead of classes.
* Using hash (#).

```
<html>
<head>
<title>new</title>
<style>
h1#r
{
color:red;
}
</style>
</head>
<body>
<h1 id="r">NSBM</h1>
<h1 id="r">NSBM</h1>
<h1>NSBM</h1>
<h1>NSBM</h1>
```

Date No

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

Paragraph in Class

```
<html>
<head>
<title> nsbm </title>
<style>
.r
{
color:blue;
}
</style>
</head>
<body>
<h1 class="r"> NSBM </h1>
<h1> NSBM </h1>
<p class="r"> NSBM Green University </p>
</body>
</html>
```

.r = h1.r

paragraph works with classes

Date No

Paragraph in ID

```
<html>
<head>
<title>nsbm</title>
<style>
#r
{
color: blue;
}
</style>
</head>
<body>
<h1 id="r"> NSBM </h1>
<h1>NSBM</h1>
<p id="r"> NSBM Green University </p>
</body>
</html>
```

#r = h1#r

paragraph works with ID

Date No

Ex:

```
<html>
<head>
<title>nsbm</title>
<style>
h1.x
{
color:blue;
}
h1.y
{
background-color:yellow;
}
h1.z
{
text-decoration:underline;
}
</style>
</head>
<body>
<h1 class = "x"> NSBM </h1>
<h1 class = "x y"> NSBM </h1>
<h1 class = "x y z"> NSBM </h1>
</body>
</html>
```

Date No

Ex:

```
<html>
<head>
<title>nsbm</title>
<style>
.gr
{
color:green;
}
#gr
{
color:green;
}
</style>
</head>
<body>
<h1> NSBM</h1>
<h1 id="gr"> NSBM </h1>
<h1 class="gr"> NSBM </h1>
<h1 class="gr"> NSBM </h1>
<p class="gr"> NSBM Green University </p>
<h3 id="gr"> NSBM </h3>
</body>
</html>
```

Date No

Java Script

Pages (HTML)

Static

* Can't change the output.

* Software, fonts will be taken from the creaters computer.
* Will be asked for fonts, software from other computers.

Dynamic

* Output change according to screen size.
* According to computer software / hardware output will change.
* Create the output for number of posibilities.

* No software, fonts will be asked.

* User will feel a personalized output.

Date No

* ① HTML → * not a language.
* a combination of HTML, CSS, Scripting
↓ content/structure ↓ formating ↓ dynamic

Scripting Languages

VB (100% owned by MS)

Java

Advantages of Java Script.

01. Interpreted and not compiled.
02. Embedded directly into HTML Pages.
03. Consists of line of excutable computer code.
04. Used to create dynamic web pages.
05. Kind of exe file. (Not exe)
06. Case sensitive.
07. Seperate file.
08. Open source. (Can be run in any browser)
09. Small in size.
10. Easy & Powerful

Date No

Syntax

* Using HTML <script> tag.

```
<script language = "JavaScript"
type = "text /javascript"  src = "url" >
.....
.....
</script>
```

First JavaScript Program.

```
<html>
<head>
<title> afsaan </title>
</head>
<body>
<script language = "JavaScript"
type = "text /javascript">
document.write ("hello");
</script>
</body>
</html>
```

For → print

this can be also included in body.

Date No

External JavaScript.

* html file.

```
<html>
<head>
<title>afsaan</title>
</head>
<body>
<script language="JavaScript" type="text/javascript">
document.write("hello");
        src="afsaon.js"
      </script>
      </body>
</html>
```

← this won't be executed.

* javascript file → afsaan.js

```
document.write("How are you?");
```

← Only this will be executed.

* Use either external or internal. Not both.

Date No

Alert Box

* only ok. (No options)

```
<script language="JavaScript" type="text/javascript">
alert("don't close the window");
</script>
```

Confirm Box.

* ok & cancel (Options)

```
<script language="JavaScript" type="text/javascript">
confirm("are you sure?");
</script>
```

Prompt Box.

* asking for input.

```
<script language="JavaScript" type="text/javascript">
prompt("enter your name", "Afsaan");
</script>
```

default value

Date No

Printing the entered name in Prompt Box in the Website.

```
<script language = "JavaScript" type = "text/javascript">
document.write(prompt("enter your name", "Afsaan"));
</script>
```

- if press ok → value will pass.
- if press cancel → null value will pass.

Printing Extra Words in Prompt Box.

```
<script language = "JavaScript" type = "text/javascript">
document.write("Welcome" + prompt("enter your
                                  name", "Afsaan"));
</script>
```

Java Script Related Variables.

```
Today = new Date();
the_date = Today.getDate();
the_day = Today.getDay();
the_year = Today.getFullYear();
the_hour = Today.get          Hours();
the_month = Today.getMonth();
the_minute = Today.getMinutes();
```

Date No

```
the_second = Today.getSeconds();
the_time = Today.getTime();
the_localYear = Today.getYear();
```

* No data types.
* No need a keyword to declare a variable because it's dynamic.

Arithmatic Calculations.

```
x = 10
y = 5

a = x + y
b = x - y
c = x / y
d = x * y

document.write(a+"<br>", b+"<br>", c+"<br>",
                                    d+"<br>");
```

Date No

JavaScript Functions.

function(space)Functionname(variables)

```
function
    functionname(var1, var2, ..., varX)
{
    ; some codes
}
```

Ex:

```
<html>
<head>
<title>afsaan</title>
<script language="JavaScript" type="text/javascript">
Function X()
{
document.write("Hello");
}
</script>
</head>
<body>
<script language="JavaScript" type="text/javascript">
x();
x();
x();
</script>
</body>
</html>
```

Date No

Function with Argument.

```
<html>
<head>
<title> afsaan </title>
<script language = "JavaScript" type = "text/javascript
Function X(a)
{
document.write(a);
}
</script>
</head>
<body>
<script language = "JavaScript" type = "text/javascript"
y = prompt ("enter name", "");
x (y);
</script>
</body>
</html>
```

Upper_lower case thing

Date No

```
<html>
<head>
<title>afsaan</title>
<script language="JavaScript" type="text/javascript">
function x()
{
alert("hello");
</script>
</head>
<body>
<form name="s">
<input type="button" name="d" value="click" onClick=
                                        "x()">
</form>
</body>
</html>
```

* Javascript line can be used inside html.
* No need of script tag.

Each line should end with ;

Date No

PHP

* Server side scripting language for creating dynamic and interactive web pages.
* Code is executed on the screen.
* A PHP page will generally contain PHP elements with HTML tags & other textual content.
* PHP is case sensitive.
* PHP is a open source software.
* Extension - .php

First PHP Program.

```
<html>
<head>
<title> afsaan </title>
</head>

<body>

<?php
echo "Hello World"
?>

</body>
</html>
```

*echo → print

Date No

Comments in PHP

Single line → //

Multi line → /*
*/

PHP Variables

* All variables starts with a $ sign.
  $a
  $b

* Can contain letters, numbers, underscore.

* Can't start with a number.
  $2a ✗
  $a2 ✓

Ex:
```
<?php
$today = "thursday";
echo "<h2> Today is $today </h2>";
?>
```

Date No

Arrays in PHP

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

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

Ex:
```
<?php
$colors = array("Fire" => "Red", "Sea" => "Blue");
$col = $colors["sea"];
echo "<h2> The Sky is $col <h2>";
?>
```

Ex:
```
<?php
$colors = array("Red", "Blue", "Green", "Yellow");
foreach ($colors as $value)
{echo "<h2> <li> I like $value </li> </h2>";
}
?>
```

(01.) Consider the following arrays and print the pass students names. (Pass mark<35)

```
$name = array("A", "B", "C", "D")
$mark = array(88, 77, 66, 32)
```

Date No

```php
<?php
$name = array("A", "B", "C", "D");
$mark = array(88, 77, 66, 32);
For ($i=0; $i<count($mark); $i++)
{
if ($mark[$i]>=35)
{
echo "$name[$i]";
}
}
?>
```

If Condition in PHP

```php
<?php
$marks = 78;
if ($marks>=50)
{
echo "You got $marks Marks";
}
else
{
echo "You failed";
}
?>
```