

HTML භාවිතයෙන් සරල වෙබ් අඩවි නිර්මාණය

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Introduction - මූලික හැඳින්වීම

Web Page - අන්තර්ජාලය තුළ තොරතුරු අඩංගුකර ඇති web documents,

Web Browser - Web පිටු බලා ගැනීමට, අන්තර්ජාලයට පිවිසීමට භාවිතා කරන මෘදුකාංග

Web Site - එක් web Domain එකක් තුළ අන්තර්ගතකර ඇති අන්තර් සම්බන්ධිත වෙබ් පිටු
ගණනාවක එකතුවක්

Web Domain - වෙබ් අඩවියක නම

Web Server - වෙබ් අඩවි ගබඩාකර ඇති අන්තර්ජාලයට සම්බන්ධ සේවාදායක පරිගණකය

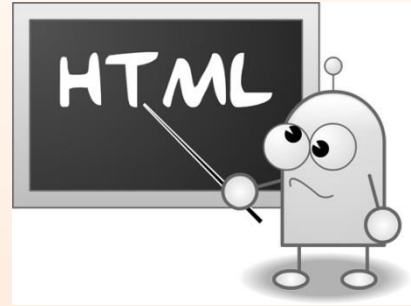
Web Page Development Software

- HTML
- WordPress
- Dream viewer
- FrontPage
- Bootstrap
- Wix
- canva
- Figma



HTML

Hypertext Markup Language



වෙබ් ඔවුසරයක (අතිරික්ෂ්‍යවක) සංදර්ශන කළ හැකි වෙබ් පිටු තැනීම සඳහා භාවිතාකරන ප්‍රධානතම සලකුණු කිරීමේ භාෂාව

HTML යනු web browserට තොරතුරු පෙන්වීම සඳහා උපදෙස් ලබා දෙන භාෂාවකි. එමනිසා විස්තර කිරීමේ භාෂාවක්/ markup ලෙස හඳුන්වයි. තොරතුරු අන්තර්ගත කරන අවකාශය Webpage ලෙස හඳුන්වයි

HTML code elements (HTML Source Code)

Basic Elements of HTML = Tags(උසුලන)

Tags මගින් web Browser ට ලබාදෙන උපදෙස් Html Codes නම් වේ.

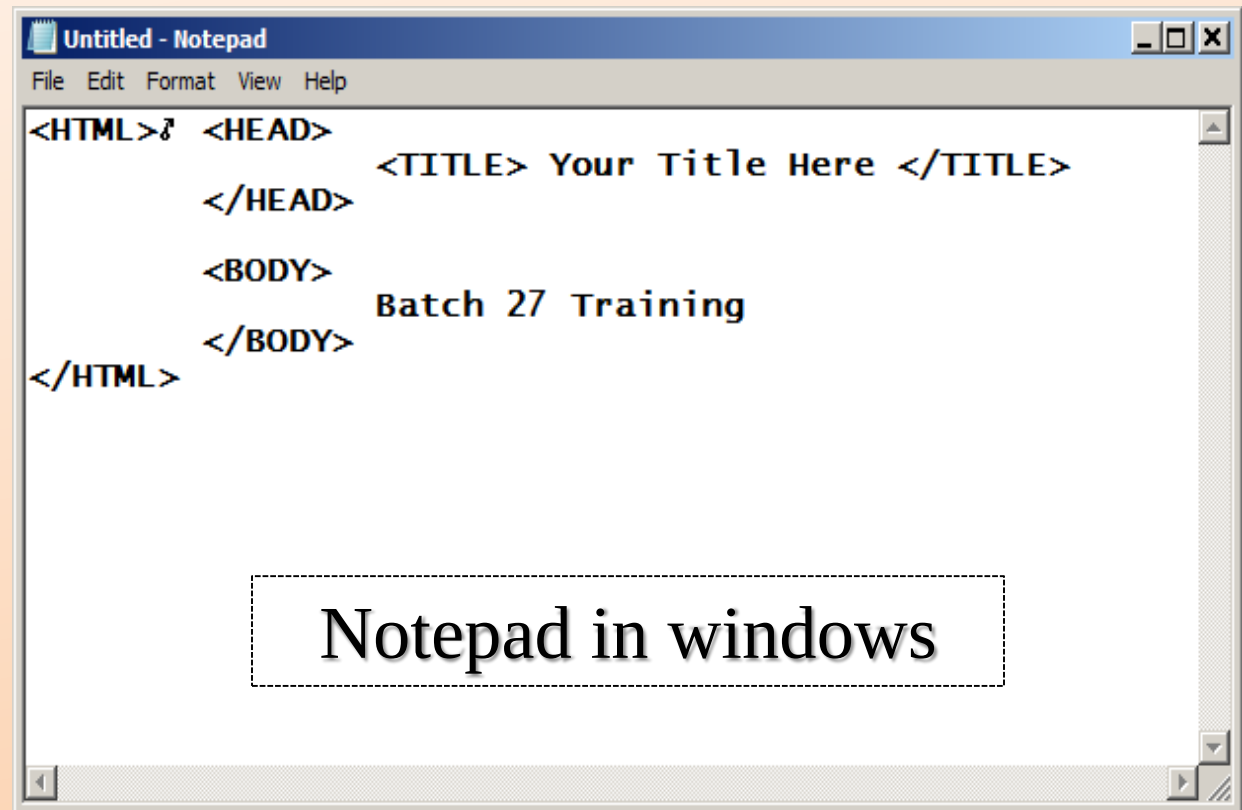
Working Environment

html කේත ලිවීම සඳහා විවිධ මෘදුකාංග භාවිතා කරයි. ප්‍රධානතම වශයෙන් භාවිතා කරන මෘදුකාංගයකි notepad. මෙය සරල පෙළ සංස්කාරක මෘදුකාංගයකි. (text editor software)

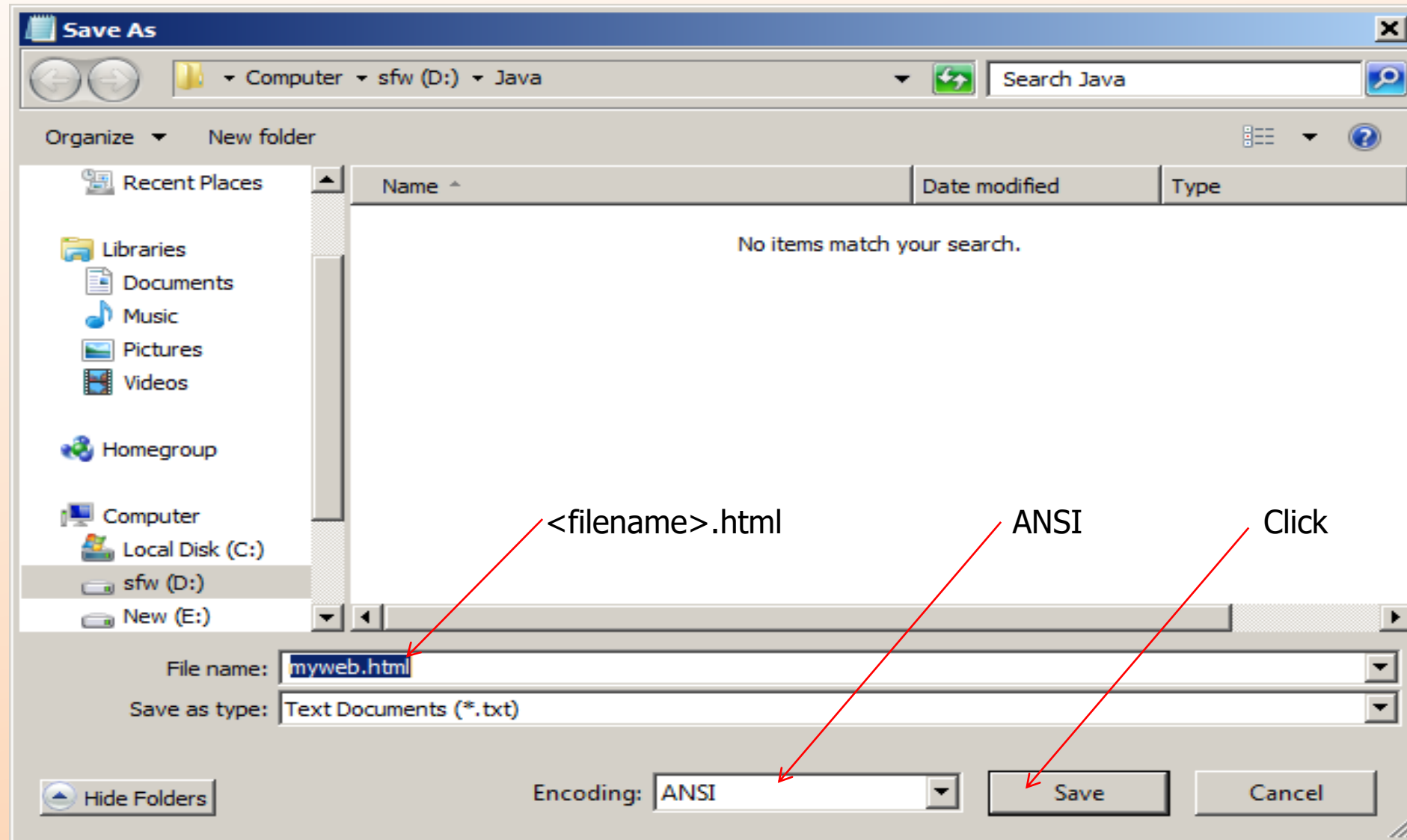
මීට අමතරව html කේත ලිවීම සඳහා භාවිතාකරන කිහිපයකි.

- Eclipse
- CoffeeCup
- Seamonkey
- SublimeText
- Visual Studio Codes
- Notepad ++

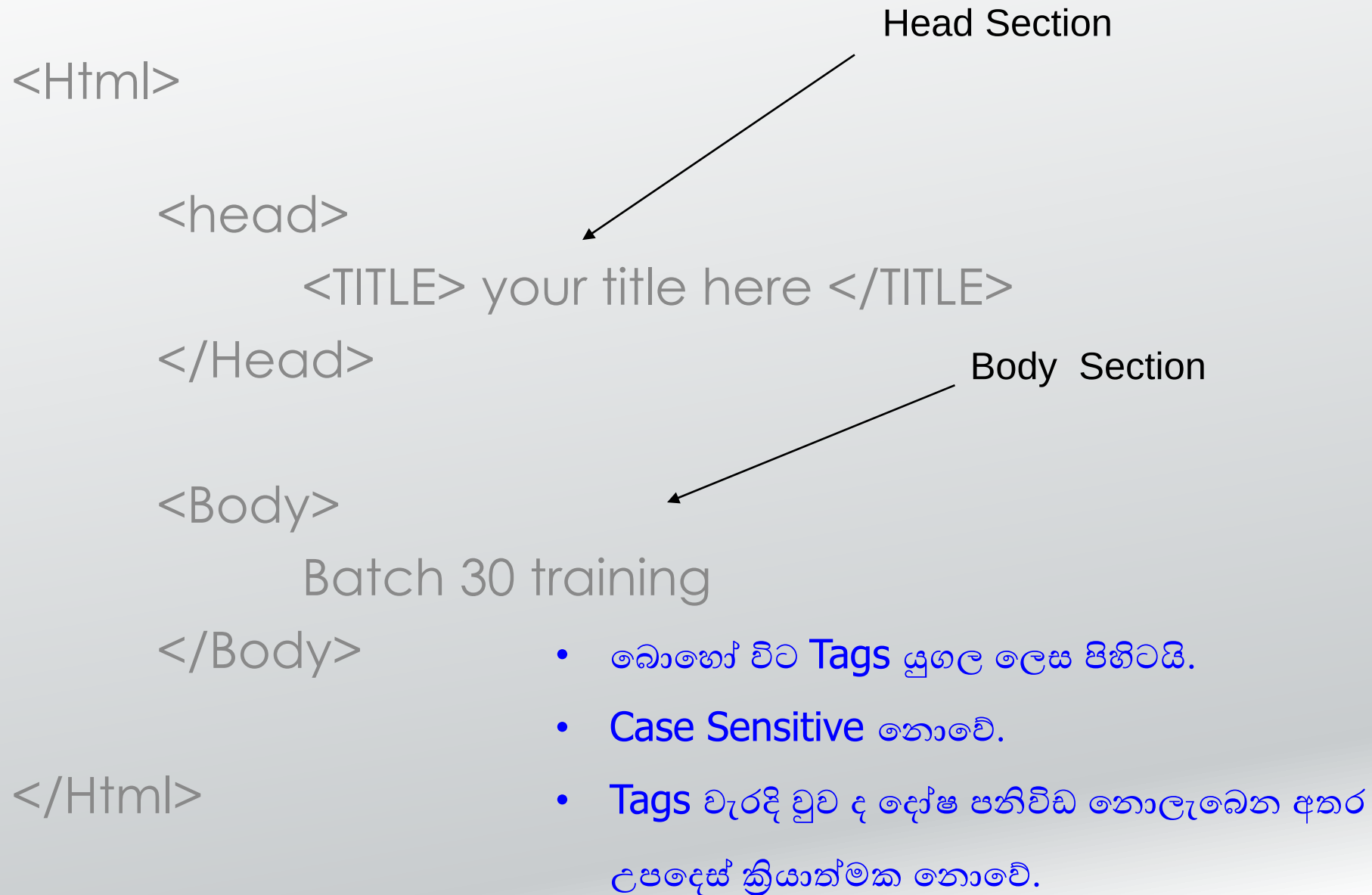
Start ----->Type <Notepad> ----->Press "Enter" Key



Saving Source File



The structure of HTML Documents



Element, Attributes and Value of Tags

මූලිකාංගය, ගුණාංගය හා අගය

Many HTML tags understand special keywords ,which are called attributes.

Attributes have Values. html උපුලනයක් කොටස් 3කින් සමන්විතයි. මූලිකාංගය, ගුණාංගය හා අගය.

Example:-

- `<Body Background="img1.Jpg" text="blue">                      </body>`
- `<Body Bgcolor="green" text="red">                      </body>`
- `<font face="Comic Sans MS " color="blue" size="5"> Sri Lanka </font>`

Element, Attributes and Value of Tags

මූලිකාංගය, ගුණාංගය හා අගය...

<body> හා උසුලනය සමඟ භාවිතා කළ හැකි ගුණාංග 3කින් ලියන්න. අගයන් සඳහන් කරන්න

Tag/උසුලනය	ගුණාංග/Attributes	අගය / Value
<body		
		

HEADERS

There are six levels of headers which are inserted with <Hn> tag.

<H1> -level 1 header </h1>

<H2> -level 2 header</H2>

<H3> -level 3 header</H3>

<H4> -level 4 header</h4>

<H5> -level 5 header</h5>

<H6> -level 6 header</h6>

Character Formatting - පාඨ හැඩගැන්වීම

- ** -Specifies bold text
- <I>** -Specifies italic text
- <u>** -Underline
- ** -emphasis
- <sub>** -Subscript
- <sup>** -Superscript
- <s>** -Strikethrough out
- <marquee>** - horizontally moving text
- ** -Specifies text characteristics such as type, size, and color

Font tag with attributes and values

Center tag

<CENTER> - center align the content (text, Image, video, paragraph)

marquee tag with attributes and values

- `<marquee direction="up">Learning ICT</marquee>`
 - `direction="up"` - `behavior="Scroll"`
 - `direction="down"` - `behavior="Slide"`
 - `direction="left"` - `behavior="alternate"`
 - `direction="right"`

<marquee> tag also supports following additional attributes:

Attribute	Value	Description
behavior	Scroll, slide, alternate	Defines the type of scrolling.
bgcolor		
height	pixels or %	Defines the height of marquee.
hspace	pixels	Specifies horizontal space around the marquee.
loop	number	how many times to loop. The default value is INFINITE.
scrolldelay	seconds	Defines how long to delay between each jump.
scrollamount	number	Defines how how far to jump.
width	pixels or %	Defines the width of marquee.
vspace	pixels	Specifies vertical space around the marquee.

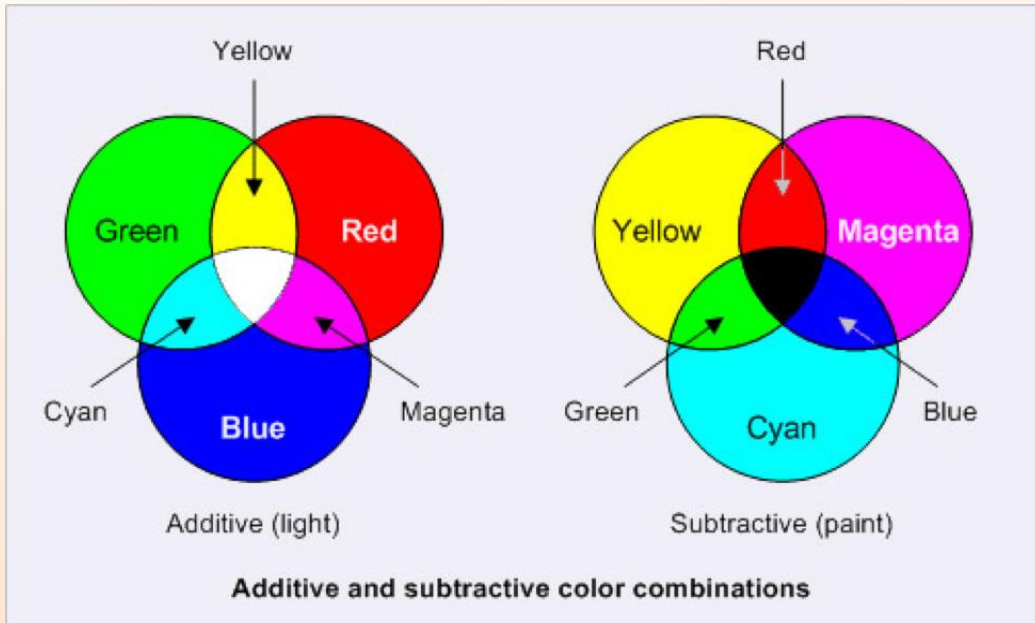
Standard Colours in Html

සෘජුවම නම භාවිතා කළ හැකි සම්මත වර්ණ දහසයක් html වල භාවිතා කරයි. වෙනත් වර්ණ සාදා ගැනීම සඳහා RGB ඡඩ් දසමක වර්ණ ක්‍රමය දශමක වර්ණ ක්‍රමය භාවිතා කරයි.

	Black		Gray		Silver		White
	Yellow		Lime		Aqua		Fuchsia
	Red		Green		Blue		Purple
	Maroon		Olive		Navy		Teal

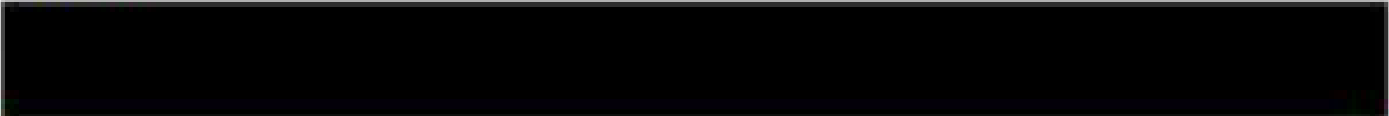
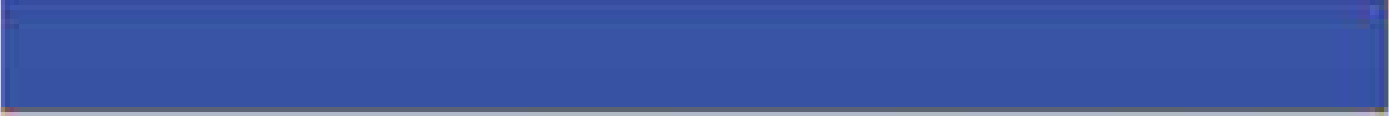
RGB - Hexa decimal Codes for colors

RGB ඡඩ් දශමක කේත ක්‍රමය



- Red – “#ff0000”
- Green – “#00ff00”
- Blue – “#0000FF”
- Sri Lanka
- Test

- Red, Green සහ Blue වර්ණ භාවිතයෙන් තවත් වර්ණ 65000කට අධික ප්‍රමාණයක් සකස්කරගත හැකිය.
- මෙහිදී එක් වර්ණයක පරාසය 0 සිට 255 දක්වා අගය පරාසයකින් වෙනස්කළ හැකිය. එම අගය hexa decimal ආකාරයෙන් හෝ decimal ආකාරයෙන් කේතනය කළ හැකිය.
- Hexa Decimal – 0 = 00, 255 = FF
- කේතනයේ දී මුලින්ම රතු වර්ණයෙන් දෙවනුව කොළ වර්ණයෙන් හා තෙවනුව නිල් වර්ණයෙන් අගය දිය යුතුය

Color	Color HEX
	#000000
	#FF0000
	#00FF00
	#0000FF
	#FFFF00
	#00FFFF
	#FF00FF
	#C0C0C0
	#FFFFFF

000000	000033	000066	000099	0000CC	0000FF
003300	003333	003366	003399	0033CC	0033FF
006600	006633	006666	006699	0066CC	0066FF
009900	009933	009966	009999	0099CC	0099FF
00CC00	00CC33	00CC66	00CC99	00CCCC	00CCFF
00FF00	00FF33	00FF66	00FF99	00FFCC	00FFFF
330000	330033	330066	330099	3300CC	3300FF
333300	333333	333366	333399	3333CC	3333FF
336600	336633	336666	336699	3366CC	3366FF
339900	339933	339966	339999	3399CC	3399FF
33CC00	33CC33	33CC66	33CC99	33CCCC	33CCFF
33FF00	33FF33	33FF66	33FF99	33FFCC	33FFFF
660000	660033	660066	660099	6600CC	6600FF
663300	663333	663366	663399	6633CC	6633FF
666600	666633	666666	666699	6666CC	6666FF
669900	669933	669966	669999	6699CC	6699FF
66CC00	66CC33	66CC66	66CC99	66CCCC	66CCFF
66FF00	66FF33	66FF66	66FF99	66FFCC	66FFFF
990000	990033	990066	990099	9900CC	9900FF
993300	993333	993366	993399	9933CC	9933FF
996600	996633	996666	996699	9966CC	9966FF
999900	999933	999966	999999	9999CC	9999FF
99CC00	99CC33	99CC66	99CC99	99CCCC	99CCFF
99FF00	99FF33	99FF66	99FF99	99FFCC	99FFFF
CC0000	CC0033	CC0066	CC0099	CC00CC	CC00FF
CC3300	CC3333	CC3366	CC3399	CC33CC	CC33FF
CC6600	CC6633	CC6666	CC6699	CC66CC	CC66FF

Paragraph formatting - ඡේද සකස් කිරීම හා ඡේදි කඩනය

<p> -Insert additional vertical space (new paragraph)

Attributes and values for <p>

< p align="left">

< p align="right">

< p align="center">

< p align="justify">

**
 or </br>** -To insert a line break (no need closing tag)

Character entity tags - හඳුන්වන උපුලනයන්

Some characters are reserved in HTML.

Result	Description	Entity Name	Entity Number
	Spaces between the words	 	
<	less than	<	<
>	greater than	>	>
&	ampersand	&	&
"	double quotation mark	"	"
'	single quotation mark (apostrophe)	'	'
¢	cent	¢	¢
£	pound	£	£
©	copyright	©	©
®	registered trademark	®	®

Write html codes for display following text

1. A & B
2. A<B
3. “Watadageya”

A & B

Creating List

Unordered list / Bulleted list/අංකිත නොවන ලයිස්තු

Each item (paragraph) in the list is prefaced with a bullet.

The tag begins the list.

Ordered List / Numbered List/අංකිත ලයිස්තු

Each item in the list is prefaced with a number.

The tag begins the list.

Unordered list / Bulleted list/අංකිත නොවන ලයිස්තු

```
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <title>Olevel ICT</title>
6  </head>
7  <body>
8      <h3><u>Provices of sri lanka</u></h3>
9      <ul>
10         <li>Western Province</li>
11         <li>South Province</li>
12         <li>Central Province</li>
13         <li>North Central Province</li>
14     </ul>
15
16 </body>
17 </html>
```

Provices of sri lanka

- Western Province
- South Province
- Central Province
- North Central Province

 Tag and type attribute

- - rendering of a disc for the value "disc"
- - rendering of a circle for the value "circle"
- - rendering of a square for the value "square"

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Olevel ICT</title>
</head>
<body>
  <h3><u>Provices of sri lanka</u></h3>
  <ul type="square">
    <li>Western Province</li>
    <li>South Province</li>
    <li>Central Province</li>
    <li>North Central Province</li>
  </ul>
</body>
</html>
```

Provices of sri lanka

- Western Province
- South Province
- Central Province
- North Central Province

Ordered List / Numbered List/අංකිත ලයිස්තු

```
1 <!doctype html>
2 <html lang="en">
3 <head>
4     <meta charset="utf-8">
5     <title>අංකිත ලයිස්තු</title>
6 </head>
7 <h3><u>Western Province</u></h3>
8 <ol>
9     <li>Colombo</li>
10    <li>Gampaha</li>
11    <li>Kaluthara</li>
12 </ol>
13
14 </html>
```

Western Province

1. Colombo
2. Gampaha
3. Kaluthara

 Tag and type attribute

Type	Numbering style	
1	Arabic numbers	1, 2, 3, ...
a	lower alpha	a, b, c, ...
A	upper alpha	A, B, C, ...
i	lower roman	i, ii, iii, ...
I	upper roman	I, II, III, ...

Western Province

- i. Colombo
- ii. Gampaha
- iii. Kaluthara

```
<h3><u>Western Province</u></h3>  
- <ol type="i">  
  <li>Colombo</li>  
  <li>Gampaha</li>  
  <li>Kaluthara</li>  
- </ol>
```

Provinces of sri lanka

■ Western Province

- a. Colombo
- b. Gampaha
- c. Kaluthara

■ South Province

- a. Galle
- b. Mathara
- c. Hambanthota

```
7 <body>
8   <h3><u>Provinces of sri lanka</u></h3>
9   <ul type="square">
10    <li><h4>Western Province</h4></li>
11      <ol type="a">
12        <li>Colombo</li>
13        <li>Gampaha</li>
14        <li>Kaluthara</li>
15      </ol>
16    <li><h4>South Province</h4></li>
17      <ol type="a">
18        <li>Galle</li>
19        <li>Mathara</li>
20        <li>Hambanthota</li>
21      </ol>
22    </ul>
23  </body>
```

Creating a Countdown List

```
<ol reversed>
```

```
  <li>A </li>
```

```
  <li>B </li>
```

```
  <li>C </li>
```

```
</ol>
```

Read more: <https://html.com/lists/#ixzz5yCxwZYxM>

Starting a List on a Specific Number

```
<ol start="3">
```

```
  <li> A </li>
```

```
  <li> B </li>
```

```
</ol>
```

විස්තරාත්මක ලයිස්තු/description/definition list

Tag	Description
<dl>	Beginning of a description list
<dt>	Introduction of list
<dd>	Description of the list

<dl>

<dt> Main subjects for the science stream </dt>

<dd> Biology </dd>

<dd> Physics</dd>

<dd> Chemistry </dd>

<dd> Combined Maths </dd>

<dt> Main subjects for the commerce stream </dt>

<dd> Economics </dd>

<dd> Business Studies </dd>

<dd> Accountancy </dd>

<dl>

Parents

Subasinghe

Nilangani

Children

Tharindu

Nirmal

Chathurangi

Pets

Cat

Dog

Parrot

<dl>

<dt>Parents</dt>

<dd>Subasinghe</dd>

<dd>Nilangani</dd>

<dt>Children</dt>

<dd>Tharindu</dd>

<dd>Nirmal</dd>

<dd>Chathurangi</dd>

<dt>Pets</dt>

<dd>Cat</dd>

<dd>Dog</dd>

<dd>Parrot</dd>

</dl>

Horizontal rule - <hr> tag

- තිරස් ඉරි එක්කිරීම සඳහා භාවිතා කරයි
- This is also empty tag (ආරම්භක හා අවසාන ලෙස උපුලන 2ක් නොමැත)

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<h1>This is heading 1</h1>
```

```
<p>This is some text.</p>
```

```
<hr>
```

```
<h2>This is heading 2</h2>
```

```
<p>This is some other text.</p>
```

```
<hr>
```

```
<h2>This is heading 2</h2>
```

```
<p>This is some other text.</p>
```

```
</body>
```

```
</html>
```

This is heading 1

This is some text.

This is heading 2

This is some other text.

This is heading 2

This is some other text.

Tables

- `<TABLE> </TABLE>`
- `<TR> </TR>`- -Table row
- `<TD> </TD>`- Rows cell
- `<TH> </TH>` cell that indicates a table heading

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>
<body>
  <h1>Create Tables</h1>
  <table>
    <caption>Table 1 - Without Boarder</caption>
    <tr><th>පාඨමාලා අංකය</th><th>නම</th><th>කාලය</th></tr>
    <tr><td>001</td><td>MS Office</td><td>මාස 3</td></tr>
    <tr><td>002</td><td>Programming</td><td>මාස 6</td></tr>
    <tr><td>003</td><td>Web Developping</td><td>මාස 6</td></tr>
  </table>
  <p>
    <table border="1">
      <caption>Table 2 - With Boarder</caption>
      <tr><th>පාඨමාලා අංකය</th><th>නම</th><th>කාලය</th></tr>
      <tr><td>001</td><td>MS Office</td><td>මාස 3</td></tr>
      <tr><td>002</td><td>Programming</td><td>මාස 6</td></tr>
      <tr><td>003</td><td>Web Developping</td><td>මාස 6</td></tr>
    </table>
  </p>
</body>
</html>

```

Create Tables

Table 1 - Without Boarder

පාඨමාලා අංකය	නම	කාලය
001	MS Office	මාස 3
002	Programming	මාස 6
003	Web Developping	මාස 6

Table 2 - With Boarder

පාඨමාලා අංකය	නම	කාලය
001	MS Office	මාස 3
002	Programming	මාස 6
003	Web Developping	මාස 6

Tables ...(colspan)

Time	Saturday	Sunday
8.30 10.30	ICT	Science
11.00 12.30	Maths	English
Lunch Time		
2.00 4.00	ICT Practical	Assignments

```
<table border="1">
  <tr>
    <th>Time</th><th>Saturday</th><th>Sunday</th>
  </tr>
  <tr>
    <td>8.30<Br>10.30</td><td>ICT</td><td>Science</td>
  </tr>
  <tr>
    <td>11.00<Br>12.30</td><td>Maths</td><td>English</td>
  </tr>
  <tr>
    <td colspan="3" align="center">Lunch Time</td>
  </tr>
  <tr>
    <td>2.00<Br>4.00</td><td>ICT Practical</td><td>Assignments</td>
  </tr>
</table>
```

Tables ...(Rowspan)

Attendance

No of Students	Boys	65
	Girls	75

```
<table border="1">
  <caption>Attendance</caption>
  <tr>
    <th rowspan="2">No of <br> Students</th>
    <td>Boys</td><td>65</td>
  </tr>
  <tr>
    <td>Girls</td><td>75</td>
  </tr>
</table>
```

Write codes to display the following table?

Ape Panthiya			
Day	Girls	Boys	Total
Saturday	25	19	44
Sunday	20	18	43

Tables..(colspan and Rowspan)

Height & Weight

Source: 1991 Census		AVERAGE	
		Height	Weight
Gender	Males	5.83	195.5
	Female	5.22	167.8

```
<TABLE BORDER="1" ALIGN="CENTER">
<CAPTION><B> Height & Weight</B></CAPTION>
<TR>
  <TD COLSPAN="2" ROWSPAN="2">Source:<BR>1991 Census </TD>
  <TH COLSPAN="2">AVERAGE</TH>
</TR>
<TR>
  <TH>Height</TH>
  <TH>Weight</TH>
</TR>
<TR>
  <TH ROWSPAN="2">Gender</TH>
  <TH>Males</TH><TD>5.83</TD><TD>195.5</TD>
</TR>
<TR>
  <TH>Female</TH><TD>5.22</TD><TD>167.8</TD>
</TR>
</TABLE>
```

Attribute	Explanation
align	Shows how the table should be aligned with the other texts in the page. Left, center, right are used as values.
width	Shows the width of a table as the number of pixels or a percentage of the width of the web page.
height	Shows the height of a table as the number of pixels or a percentage of the height of the web page.
bgcolor	Shows the background colour of the table. Values can be assigned in the same way colours were assigned to the texts.
border	“1” is used as the value if a border is needed around the cells of the table, if not “0” is used as the value.
bordercolor	Shows the colour of the border.
background	Used to include a picture to the background of the table. File name or the path related to the picture is used as the value.
cellpadding	Shows the gap between cell border and its content. value is indicated as a number of pixels.
cellspacing	Shows the gap between cells. Value is indicated as a number of pixels.

Inserting Graphics

 උපුලනය භාවිතා කරන අතර ආරම්භක හා අවසාන ලෙස උපුලන කොටස් 2ක් නොමැත. (Empty tags)

To insert an image at the current location in the document

<BODY>

<IMG SRC="fruits.jpg" WIDTH="500" HEIGHT="400" HSPACE="200"
VSPACE="100" BORDER="30" alt="Mango">

</BODY>

Width="35%" , height="45%"

- **SRC / Source** Which is the location of an image file on the server or any URL on the web and name of the file with correct extension
- **Width & Height** Specify the width and height of the image in pixels or percentage of the page
- **Vspace & Hspace** space around the image vertically or horizontally.
- **Align** Aligns the image to the left ,right, center, top, bottom, or middle of the screen
- **Border** Add a border to the image with density in pixels
- **Alt** display a text message when the image is not in the given path

Adding Sound

Tag / Attribute	Description
<EMBED>	Places an embedded object into a document
LOOP=n	Specifies the n number of times a background sound file repeats.
AUTOSTART	Specifies whether the sound file opens when the web page is accessed
<BG SOUND>	Embeds a background sound file within documents.

<HTML>

<HEAD>

<TITLE> Sounds on web pages </TITLE>

</HEAD>

<BODY>

<CENTER>

<EMBED SRC="hindi.mp3" HEIGHT="60" WIDTH="140" loop=2>

</CENTER>

</BODY>

</HTML>

<HTML>

<HEAD>

<TITLE> Sounds on web pages </TITLE>

</HEAD>

<BODY>

<BGSOUND SRC="hindi.mp3" >

</BODY>

</HTML>

Insert Video into web page

```
<HTML>
```

```
<HEAD>
```

```
<TITLE> Video on web pages </TITLE>
```

```
</HEAD>
```

```
<BODY>
```

```
<EMBED SRC="english2.mp4" AUTOSTART = "FALSE">
```

```
<H2 ALIGN=CENTER">HAPPY BIRTH DAY</H2>
```

```
</BODY>
```

```
</HTML>
```

Create Hyperlinks - අධි සන්ධාන නිර්මාණය

- මේ සඳහා ඇත්තේ උපුලනය භාවිතා කරයි
- `<A> </A>`
- ආකාර 3ක සම්පත් සම්බන්ධ කළ හැකිය
 - වෙනත් ගොනුවක්
 - වෙනත් වෙබ් පිටුවක්
 - වෙනත් වෙබ් අඩවියක්
- The text or image that you click to activate the link
- The URL of the link's target ,which will open when you click the link.
- `<A HREF=Http://www.doenets.lk> Examination Results </A>`
- `<a href="President.jpeg">apple</a>`
- `<a href="page2.html">Introduction</a>`

[Back](#)

[Next](#)

<HTML>

<HEAD>

<TITLE> Video on web pages </TITLE>

</HEAD>

<BODY>

look at video

</BODY>

</HTML>

[Back](#)

- `<A href="song1.mp4">Paya Ai Hinahenne</a><br>`
- `<a href="firstweb.html">Link Another Web page</a><br>`
- `<A href="http://www.google.com">Google</a><br>`

<HTML>

<HEAD>

<TITLE> Graphics on web pages </TITLE>

</HEAD>

<BODY>

<CENTER>

<H1>Placing an image on a web page</H1>

<IMG SRC= "MyImage.jpg"

</CENTER>

</BODY>

</HTML>