

TOPIC: Editors, Basics Structure of HTML, Formatting Elements

**COURSE : Short Term Course Certificate Course in
Web Designing**

Topics to be Covered

- Editor, Code Editor
- Notepad++
- Creating, Saving, Editing Files in Notepad++
- Sublime Text Editor
- HTML Introduction, HTML 5
- Basic Structure of HTML
- Head Section and Elements of Head Section
- Formatting Elements

Editors

- Editor is a generic name for a type of software programs that enable a user to-

Write: User can write a piece of text in any of the supported fonts.

Edit: User can Edit a pre-written text whenever it is needed.

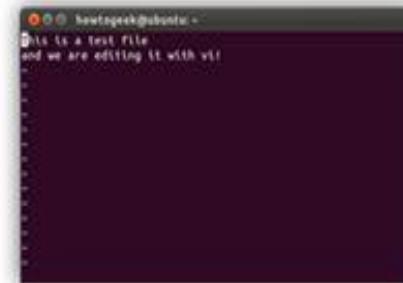
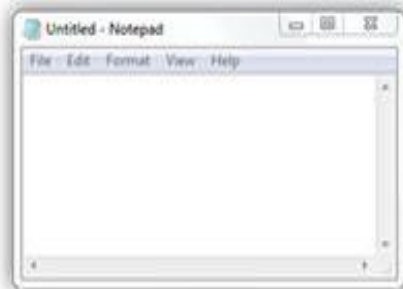
Save: User can Save the text with proper extension.

Print: User can print the saved text anytime.

In Windows environment,

Notepad

is the simplest editor.



Similarly in Linux environment,

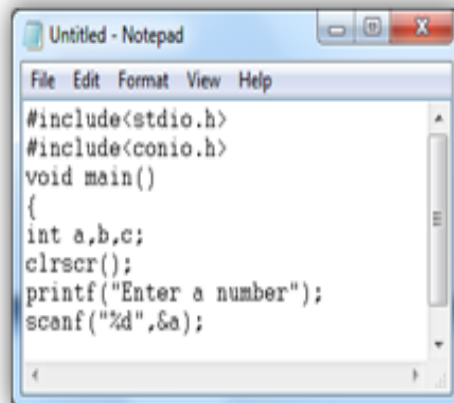
vi editor

is a popular text editor.

Code Editors

- ❑ **Code editors** are very similar to the common text editors but with a few specialities-
 - Used specially to write **source-codes of programs** in a typical programming language.
 - Do not look like a traditional text editor.
 - Many more extensions are supported by the code editors.
 - Many more editing features are added in code editors.
 - Usually codes appear in multi-colour text format.

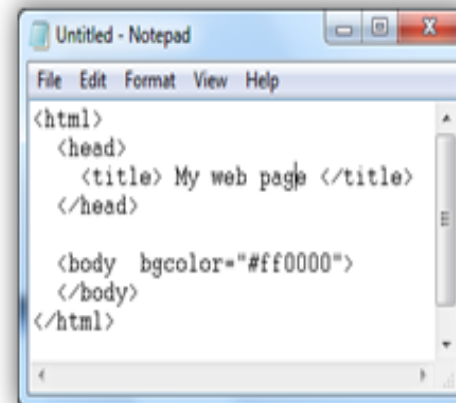
As an example the C source code of a software can be written in notepad and can be saved with **‘.c’** extension.

A screenshot of a Notepad window titled 'Untitled - Notepad'. The menu bar includes File, Edit, Format, View, and Help. The text area contains the following C code:

```
#include<stdio.h>
#include<conio.h>
void main()
{
int a,b,c;
clrscr();
printf("Enter a number");
scanf("%d",&a);
```

An C code in Notepad

Similarly the HTML source code of a website can be written in notepad and can be saved with **‘.html’** extension.

A screenshot of a Notepad window titled 'Untitled - Notepad'. The menu bar includes File, Edit, Format, View, and Help. The text area contains the following HTML code:

```
<html>
<head>
<title> My web page </title>
</head>

<body bgcolor="#ff0000">
</body>
</html>
```

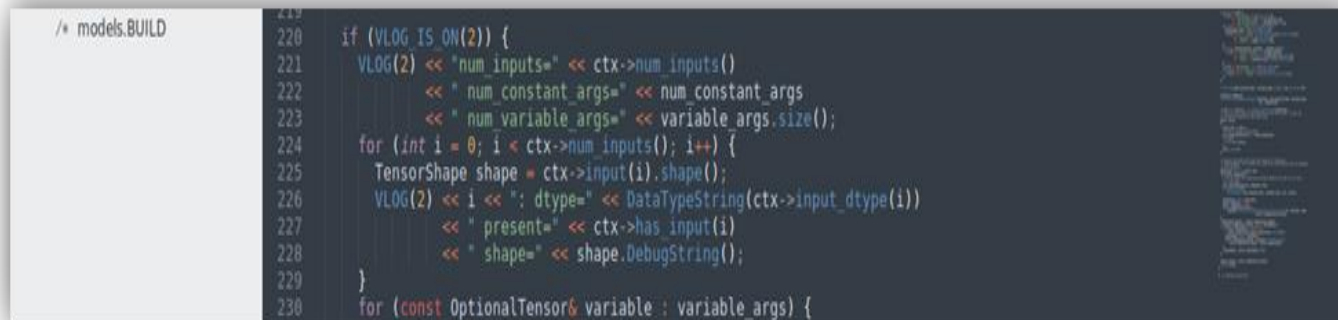
An HTML code in Notepad

❑ Popular code editors for web development are as follows:

- **Notepad++**

A screenshot of the Notepad++ text editor. The editor window displays HTML code. Line 193 shows the closing head tag </head>. Line 194 shows the opening body tag <body class="home blog custom-background wp-custom-logo wide">. Line 195 shows the opening div tag <div id="page" class="hfeed site">. Line 196 shows the opening header tag <header id="masthead" class="site-header clearfix">, which is highlighted with a blue selection background. Line 197 shows the opening div tag <div id="header-text-nav-container" class="clearfix">. Line 198 shows the opening div tag <div class="inner-wrap">. Above line 193, there is a URL: https://i2.wp.com/www.wcifly.com/blog/wp-content/uploads/2017/09/cropped-wcifly_logo_50-1.png?fit=270%2C270&ssl=1" />. The left margin shows line numbers 193, 194, 195, 196, 197, and 198.

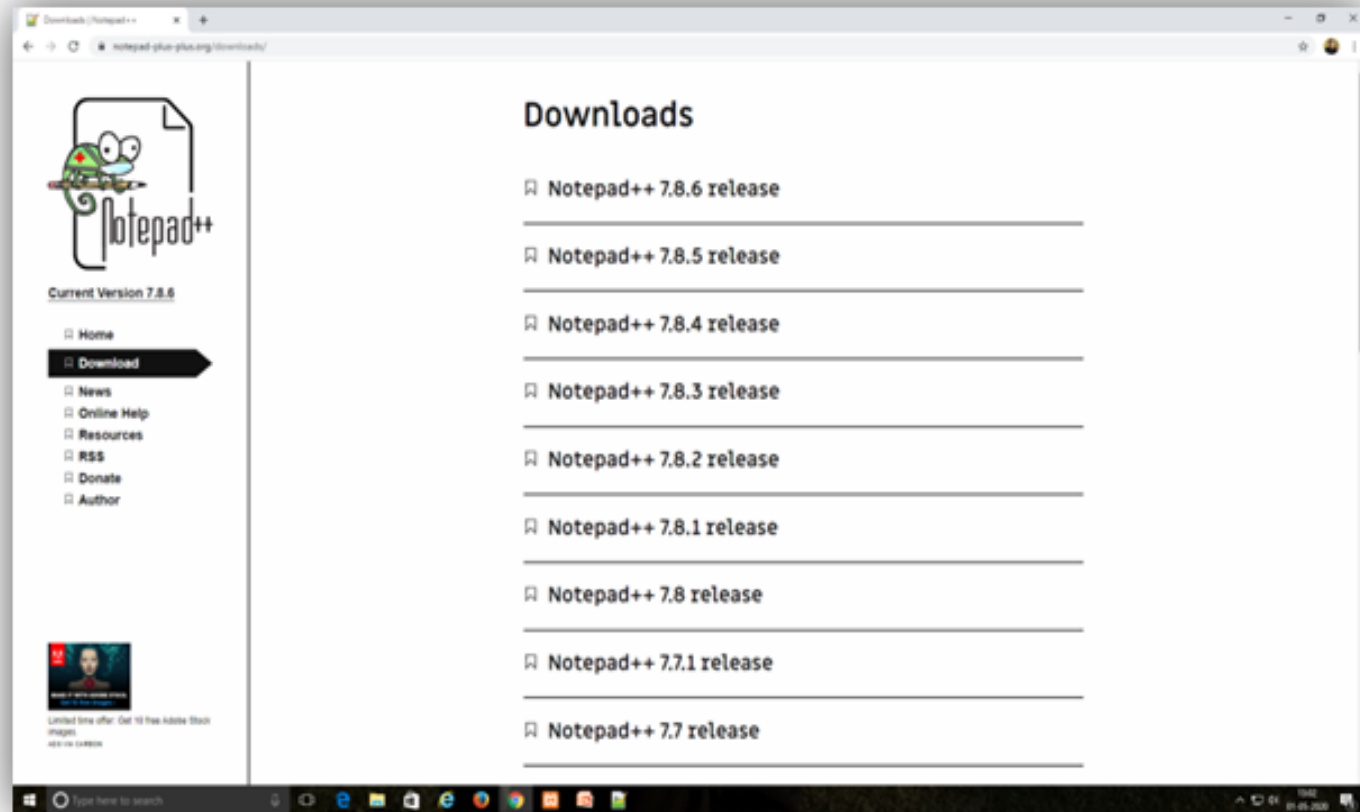
- **Sublime**

A screenshot of the Sublime Text editor. The editor window displays C++ code. The first line is a comment: /* models.BUILD. The code continues with a conditional compilation block: if (VLOG_IS_ON(2)) {. Inside this block, there are several logging statements using VLOG(2) and some variable declarations and assignments. The code is color-coded: comments are grey, keywords are blue, and identifiers are white. The right side of the editor shows a sidebar with a file explorer view. The line numbers 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, and 230 are visible on the left margin.

Notepad++

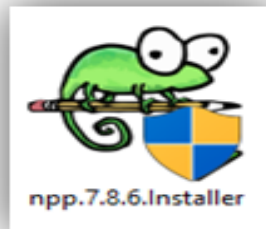
- Notepad++ is a free source code editor.
- It supports several languages.
- It supports tabbed editing.
- It provides a high speed of execution.
- It is smaller size of program.
- It supports a total of about 70 plus different programming languages.
- To download Notepad++, follow the following link:

<https://notepad-plus-plus.org/downloads/>





What we get after downloading is:



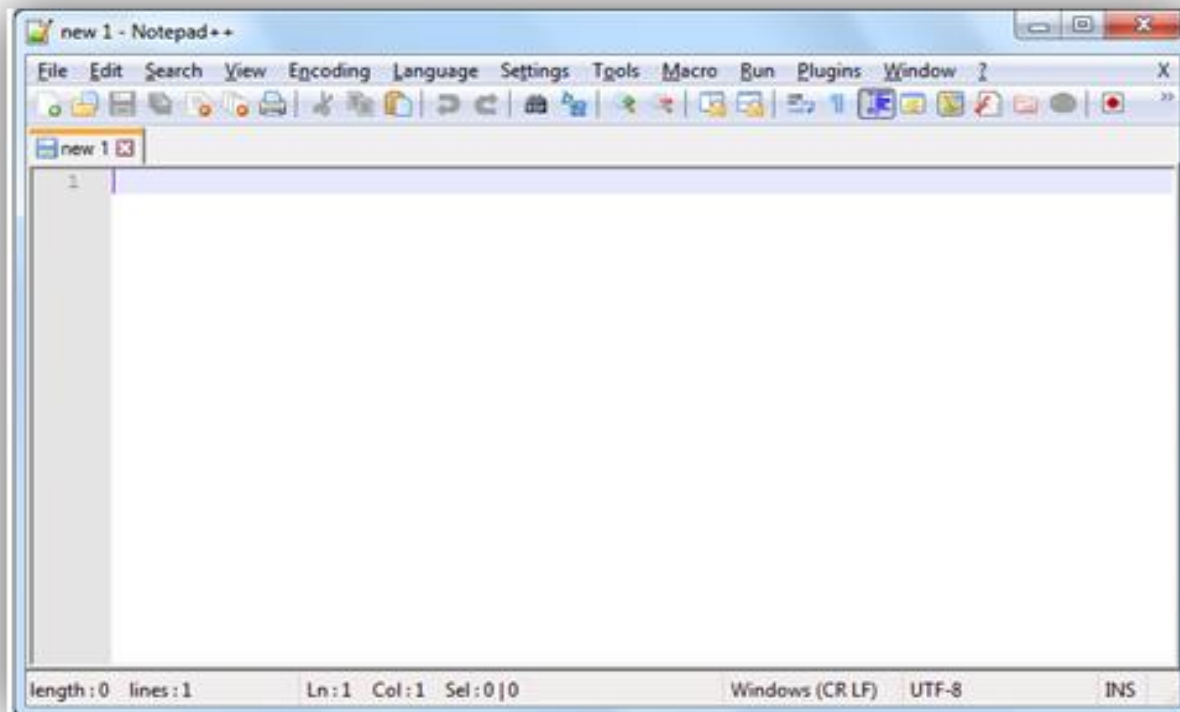
Steps of Notepad++ installation-

- Double Click on The downloaded [.exe] file.
- Select the language and click [OK].
- On the Installation Wizard, click [Next].
- In the next step, click on [I Agree] to abide by the agreement.
- In the next step, select the path and click [Next].
- In the next step, choose appropriate components and click [Next].
- In the next step, check whether to create a short-cut on the desktop or not and click [Next].
- Installation Begins. Click [Finish] when completed.

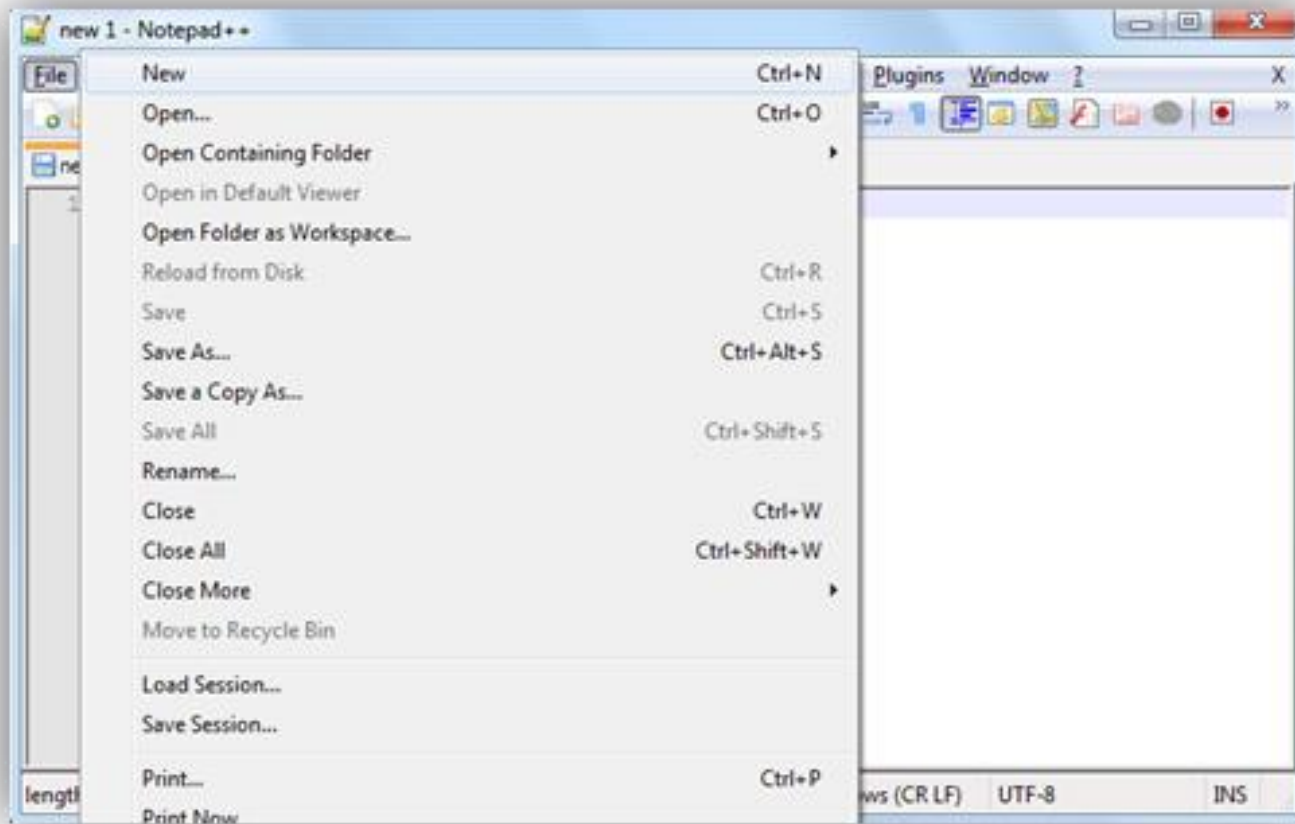
Creating Files in Notepad++

- Open Notepad ++ from: **Start → All Programs → Notepad ++**

[It already starts with a new file.]

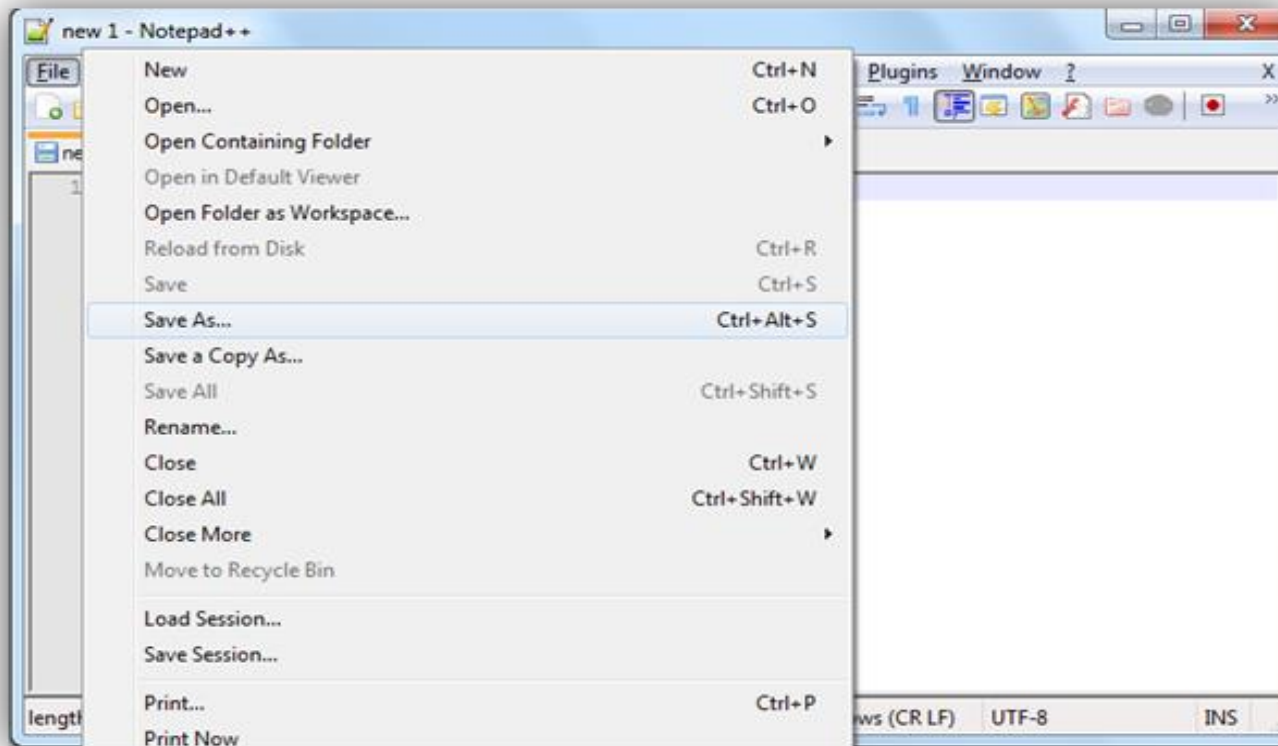


If want to create another file, click **File → New** [It creates a new file]

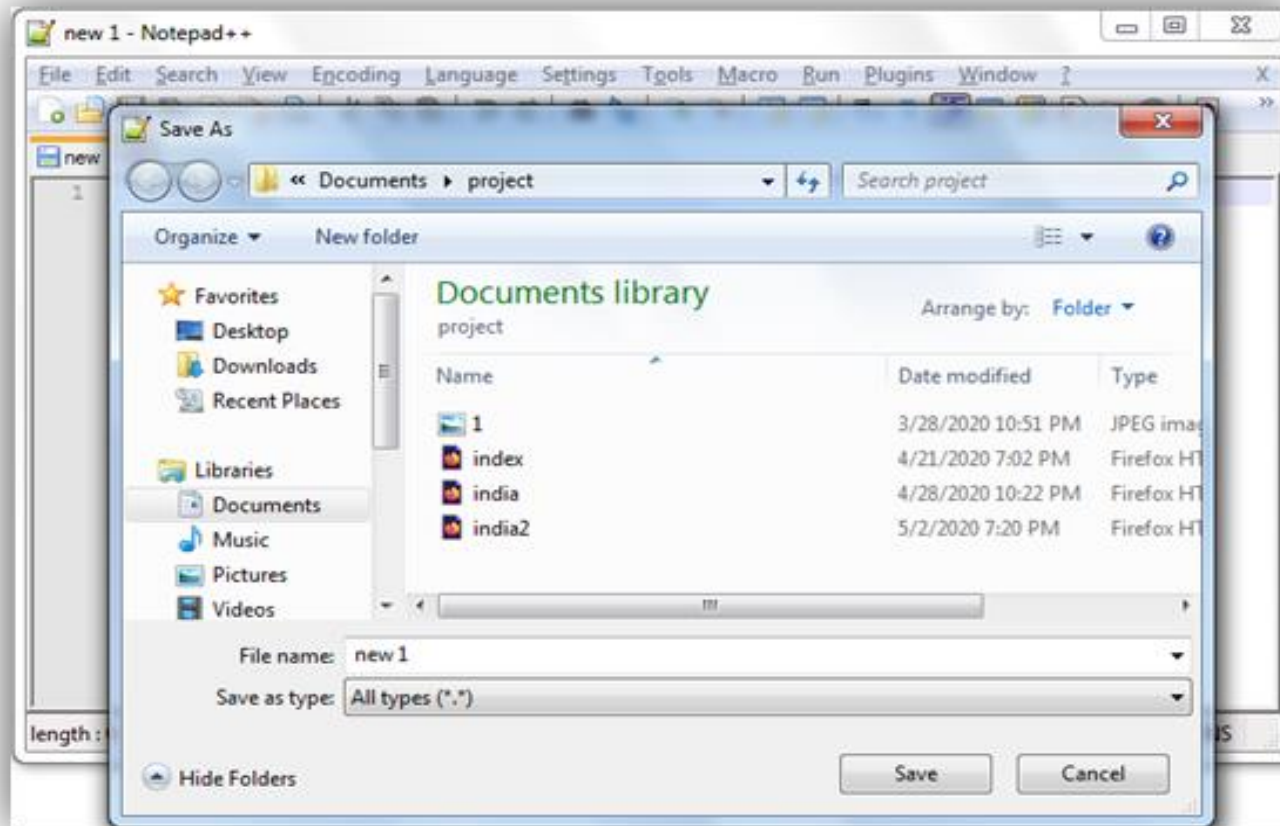


Saving Files in Notepad++

Step1: Start with clicking on **File** menu.

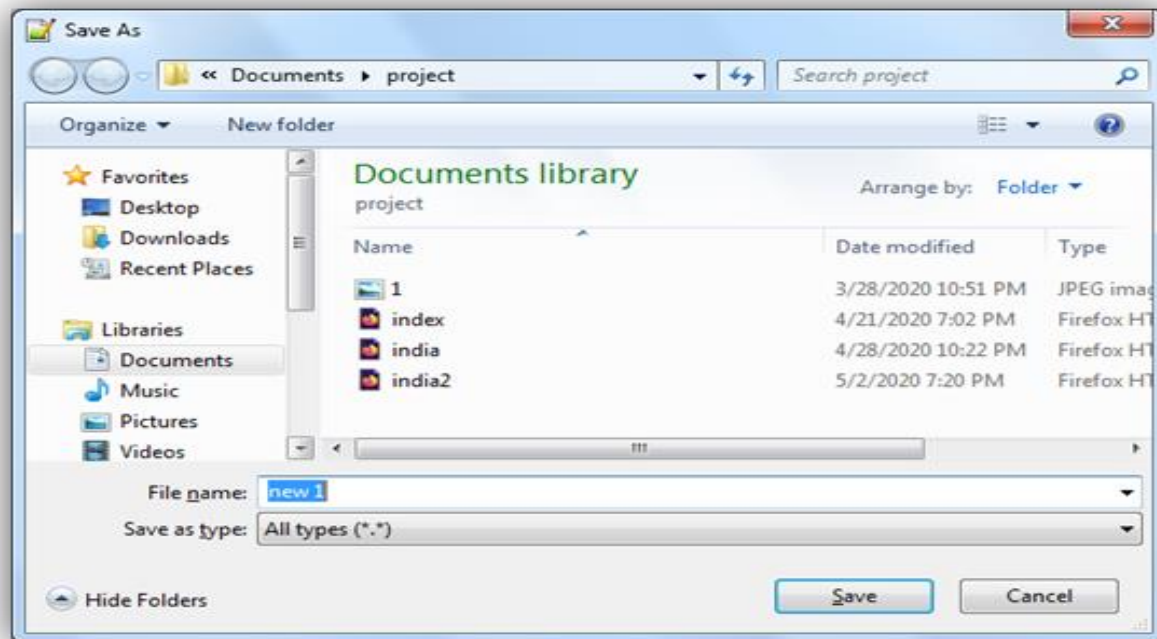


Step2: Then click on Save As sub menu, Save As dialog box will be appeared:

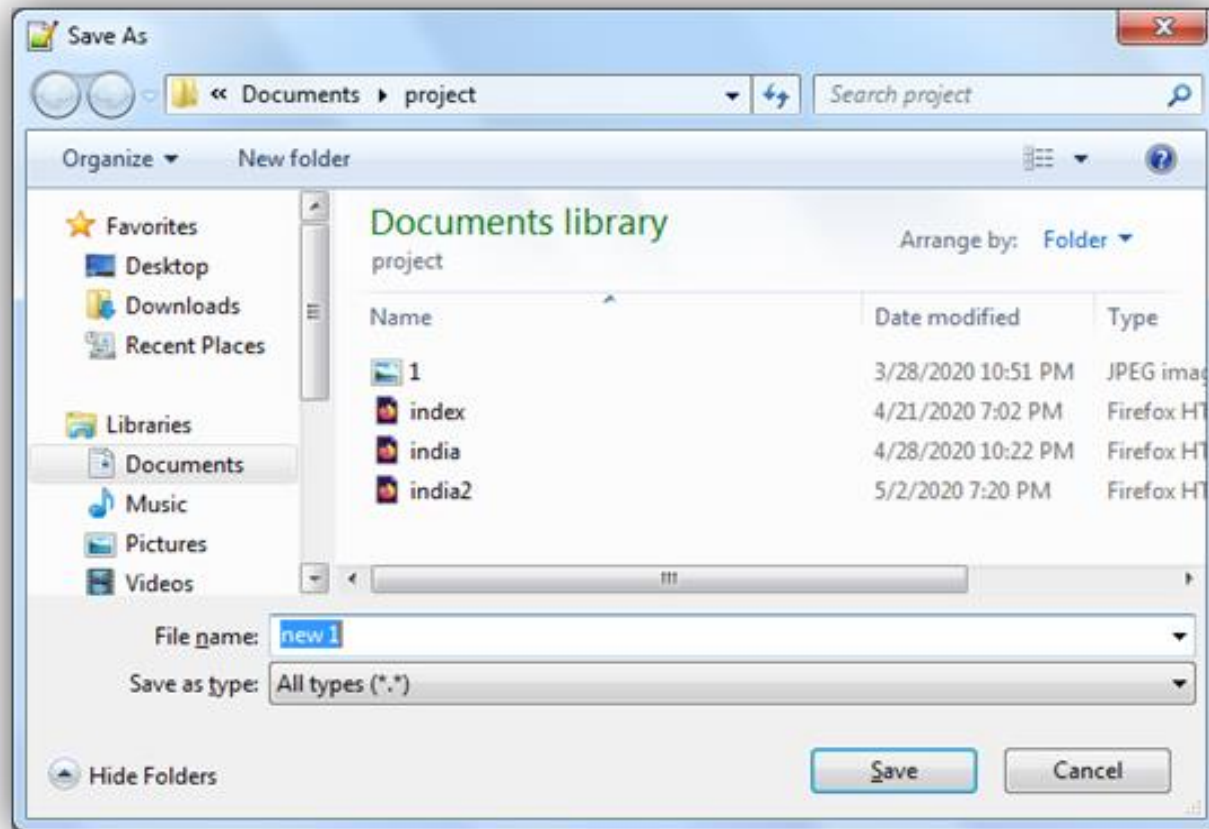


Step3: In the **Save As** box, give file name with extension

It is necessary to **save the file with a proper extension**. Extension is a **3-4 character suffix** that is added to the filename for identifying the **type of file**. Like C language file has extension '.c'. Similarly, HTML file has **' .htm' or '.html'**, CSS file has **' .css'**, C++ has **' .cpp'**,

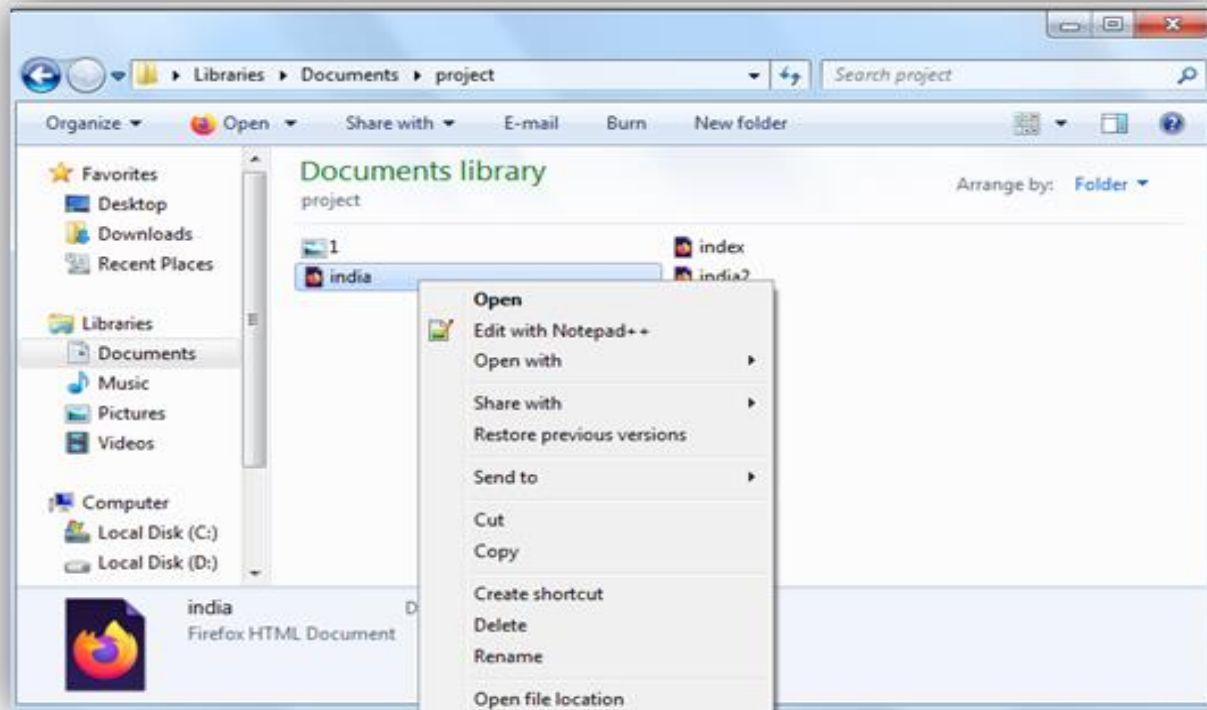


Step4 : Then click on Save.

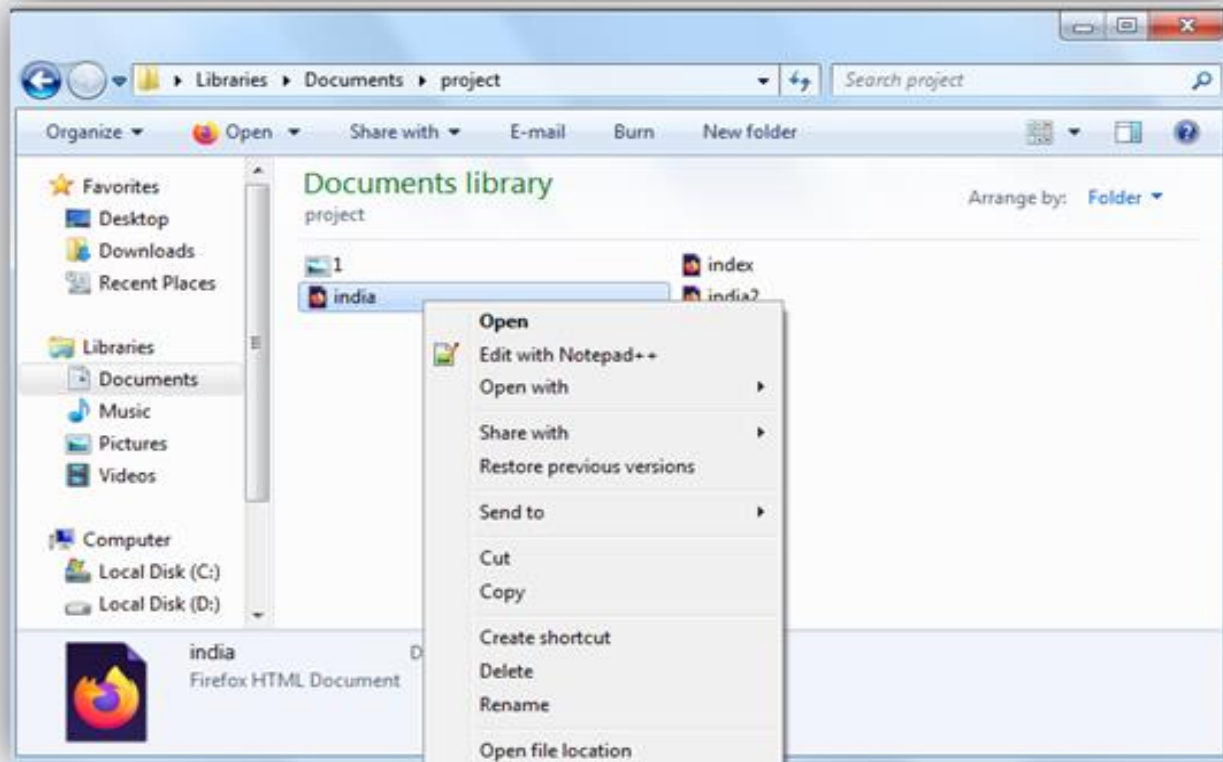


Editing Files in Notepad++

Step1: Start with a right click on the File.



Step2: Then click on Edit with **Notepad++**.

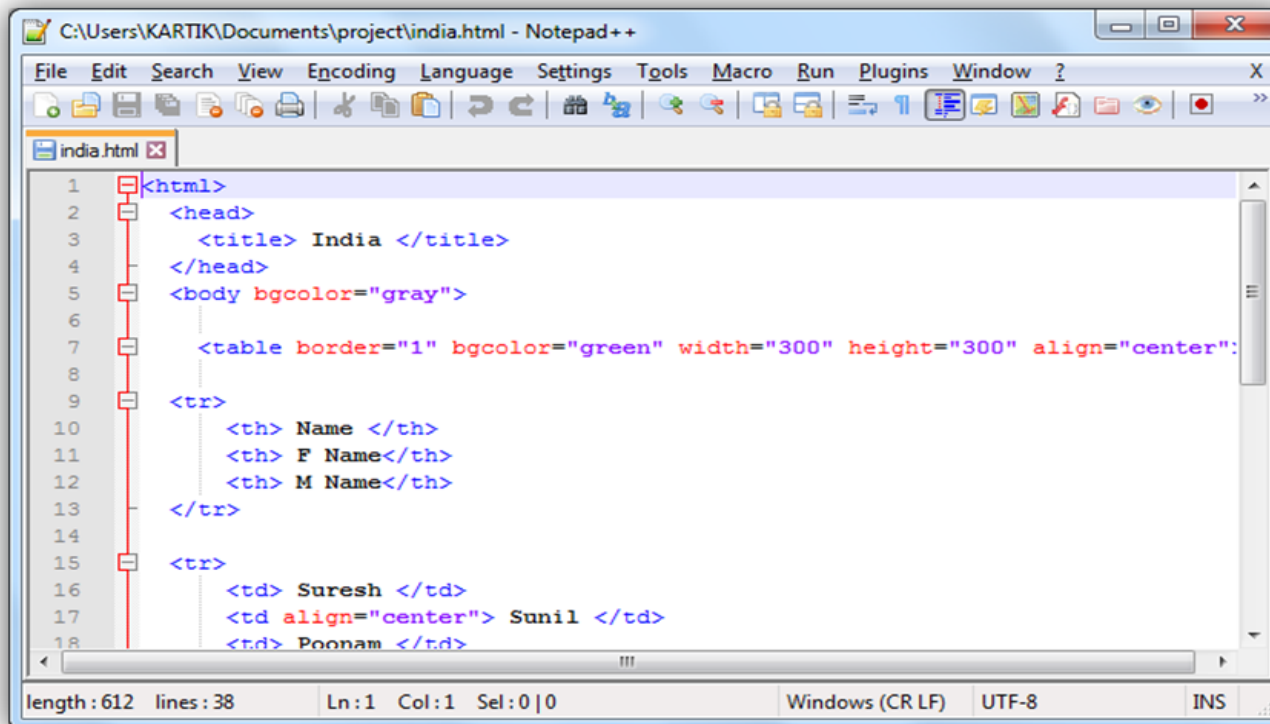


Step3: After clicking on **Edit with Notepad++**,

User gets the code of that file in Notepad ++.User can edit this code here and finally, can

save

from the File menu.



The screenshot shows the Notepad++ application window with the file 'C:\Users\KARTIK\Documents\project\india.html' open. The code is as follows:

```
1 <html>
2 <head>
3   <title> India </title>
4 </head>
5 <body bgcolor="gray">
6
7   <table border="1" bgcolor="green" width="300" height="300" align="center":
8
9   <tr>
10    <th> Name </th>
11    <th> F Name</th>
12    <th> M Name</th>
13  </tr>
14
15  <tr>
16    <td> Suresh </td>
17    <td align="center"> Sunil </td>
18    <td> Poonam </td>
```

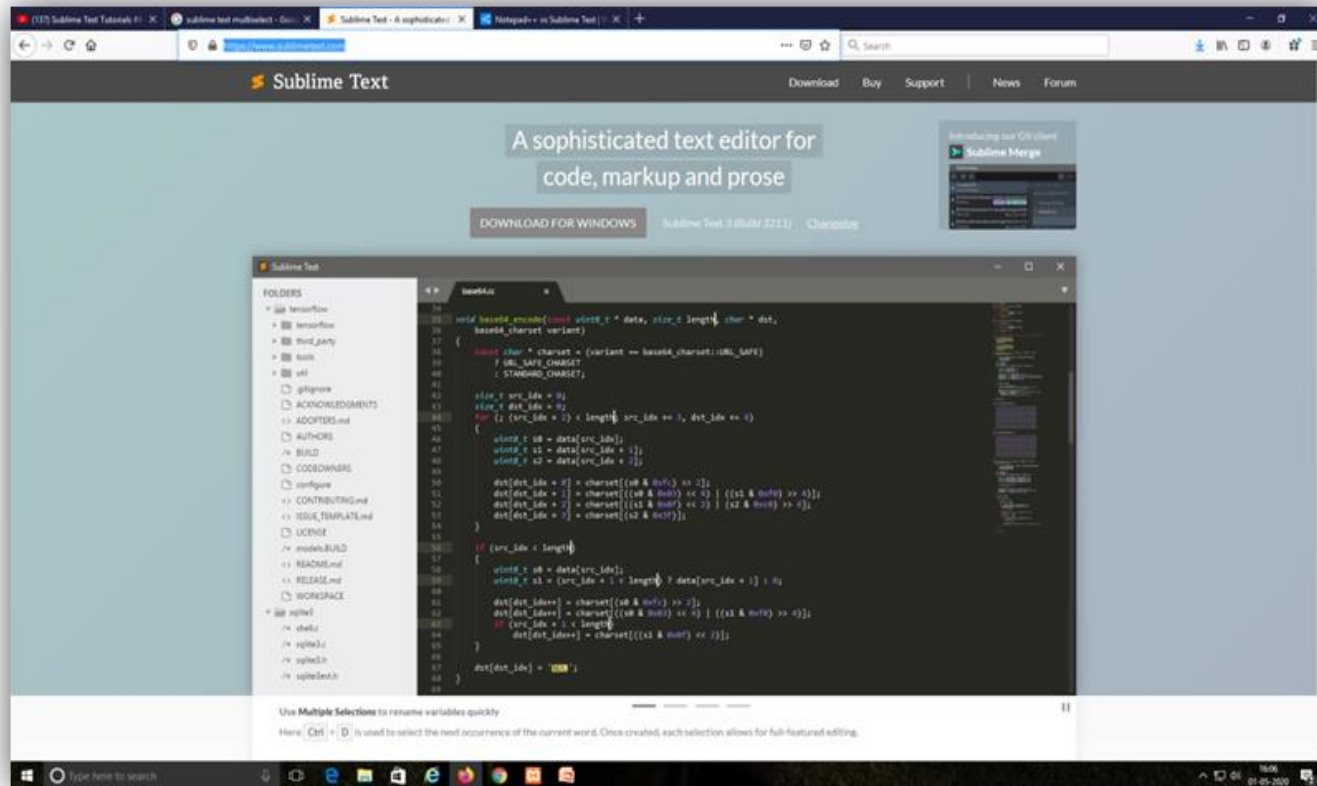
The status bar at the bottom indicates: length : 612 lines : 38 Ln : 1 Col : 1 Sel : 0 | 0 Windows (CR LF) UTF-8 INS.

Sublime Text Editor

- Sublime Text is a shareware source code editor.
- It supports different programming languages.
- It also supports tabbed editing.
- Its theme is dark black.
- It provides a feature of Go to anything that allows a programmer to move anywhere in the code.
- It's most powerful feature is Multi-select that allows a programmer to type on multiple places in the code at same time.

To download Sublime Text, follow the following link:

<https://www.sublimetext.com/>



Then click on the button [DOWNLOAD FOR WINDOWS]. It will start downloading the executable file.

Steps of Sublime Text installation-

1. Double Click on The downloaded [.exe] file.
2. On the wizard, select the path and click [OK].
3. In the next step, select additional tasks and click [Next].
4. In the next step, it is ready to install. Click [Install].
5. Installation Begins. Click [Finish] when completed.

HTML Introduction

- HTML stands for Hyper Text Markup Language.
- It is standard and fundamental markup language for creating web pages and websites.
- It specifies the structure of the web page.
- The building blocks of HTML are the elements of the HTML.
- HTML elements are represented by tags and their attributes.
- Web browsers do not display the HTML tags, but use them to render the contents of the web page.
- Web browsers receive HTML documents from web server or from local storage and render the document into web pages.

History & Version of HTML

In 1991, Tim Berners Lee invented HTML and wrote browser and server software

There are many versions of HTML till now:

Version	Published Year
HTML	1991
HTML 2.0	1995
HTML 3.2	1997
HTML 4.01	1999
XHTML (Extensible)	2000
HTML 5	2014
HTML 5.1	2016
HTML 5.2	2017

HTML5 Introduction

- HTML 5 is the latest version of HTML. It is maintained by W3C (World Wide Web Consortium).
- HTML5 has new and latest feature that makes it more powerful and dynamic while designing websites.
- New tags and attributes are introduced in HTML5, some elements are removed, some elements are redefined.
- Some new elements of HTML 5 are `<audio>`, `<video>`, `<section>` , `<header>`, `<footer>`, `<nav>`, `<mark>` etc.
- `<frame>`, `<frameset>`, `<strike>`, ``, `<center>` etc. elements are dropped in HTML5.
- New form input types are introduced in HTML – date, time, email, url etc.
- W3C has presented logo of HTML5 in 2011.



Logo of
HTML5

Basic Structure of HTML

```
<!DOCTYPE html>
<html>

  <head>
    <title> title of the page </title>
  </head>

  <body>
    Hello ! ! ! <br>
    My first web page....
  </body>

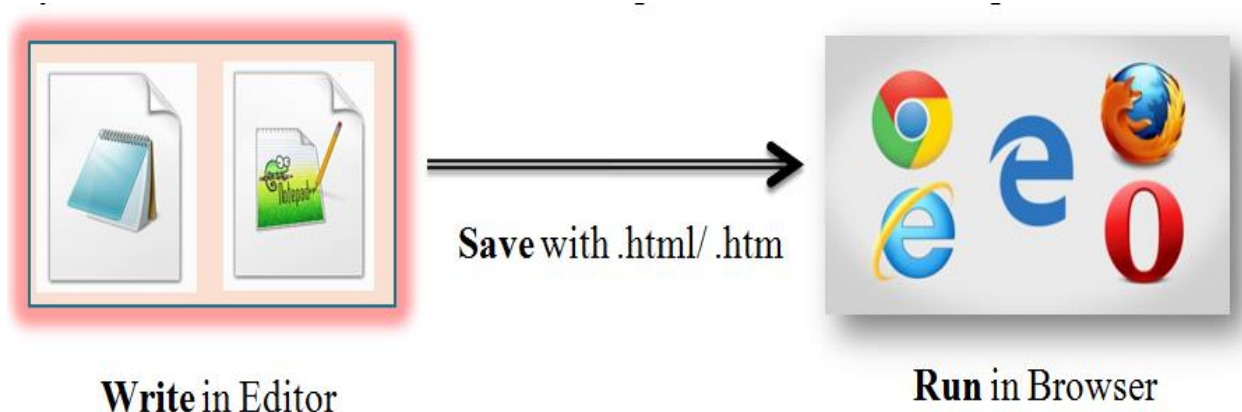
</html>
```

Explanation:

- The first line `<!DOCTYPE html>` defines the type of the document. It tells the web browser about the language in which the web page is written.
- Next, the whole html code is enclosed within `<html> </html>` tag.
- Then, the html code is comprised of two sections i.e. Head section and Body section.
- The head section is defined within `<head> </head>` tag. This section contains the meta information (data about data) like document title, character set, style, script and other meta information.
- The body section is defined within `<body> </body>` tag. This section contains main contents/ information that is visible on the web page.

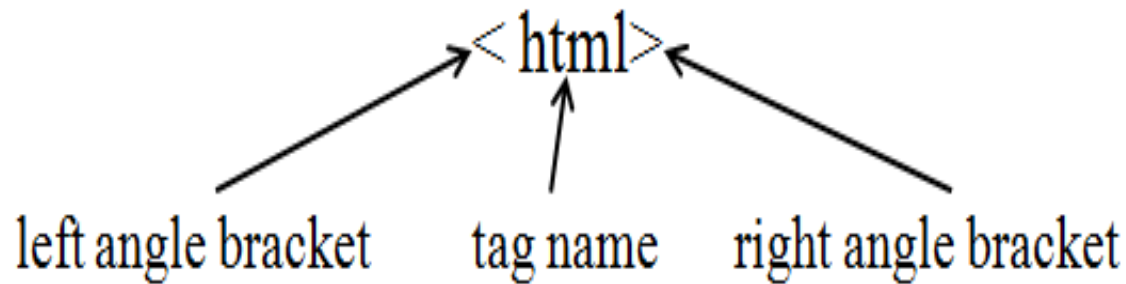
Creating and running of HTML

- **Step 1:** Open any text/code editor like notepad/ notepad++ or sublime etc.
- **Step 2:** Write the HTML code.
- **Step 3:** Save the document by giving the desired primary name of the document with extension .html or .htm
- **Step 4:** Open the document with using any of the web browser installed on the system like Chrome, Firefox, Internet Explorer etc. to see the output of the html code.

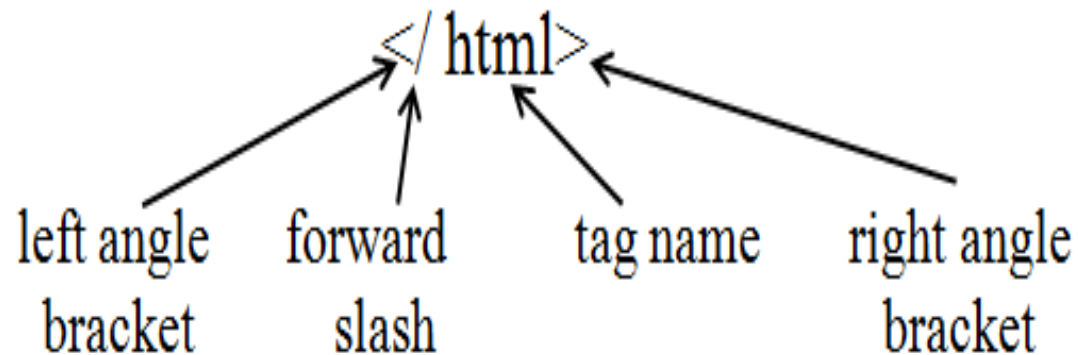


HTML Tags/Elements

- Tags are the mark up and coded instructions referred to as source code. It is enclosed in a pair of angle bracket. Usually there are opening (start) and closing (end) tags with containing some text or objects in between.
- The opening tag begins with left angle bracket (<), followed by tagname and then right angle bracket (>). For example:



- The closing tags are identical to opening tag except a forward slash (/) before the tag name. For example:



Types of Tags

- HTML tags are two types: 1. Container tag 2. Empty tag
- **Container tags** are those tags that have both opening (on) tag and closing (off) tag. These tags have some objects being affected between opening and closing tag.

Syntax:

```
<tagname> ..... Some objects here ..... </tagname>
```

Examples:

```
<h1> Write your heading here </h1>
```

```
<p> Write your paragraph here </p>
```


- **Empty tags** are those that have only opening tag and don't have end tag associated. The reason behind this is that they don't act on block of objects. `
` and `<hr>` are examples of empty tag.

`
` -- for line break

`<hr>` -- for drawing horizontal line

HTML Attributes

- Attributes are associated with tags. It allows to modify or change the appearance or behaviour of the tag. The value of attribute is specified by percentage, pixels, unit value, names, directional etc.

Syntax:

```
<tagname attribute1="value" attribute2="value", ..... >
```

- For example: <body> tag has basically three attributes :
 1. **bgcolor** : It is used to specify the background color of the web page.
 2. **text**: It is used to specify the text color of the web page.
 3. **background**: It is used to set the picture on the background of the page.

```
<body bgcolor="yellow" text="red">
```

-- This will change the page's background color as yellow and text color as red.

```
<body background="nature.jpg" text="white">
```

-- This will set the nature.jpg picture on the background of the page and text color as white.

Note: If users don't mention the attributes. These have some default value, like `<body>` tag has the background color as white, text color as black and background picture as none by default.

Head Section and Elements of head section

- The head section is defined within `<head> ... </head>` tag. It consists of Meta information (data about data) of the web page.
- The metadata is not displayed on the web page.
- It contains document title, character encoding, styles, scripts, links to the style sheet/scripts files, and other Meta information which is helpful for search engines.
- The elements of head section are:
 1. `<title>`
 2. `<style>`
 3. `<meta>`
 4. `<link>`
 5. `<script>`

1. **<title> tag:** It is used to define the title of the web page. The title is displayed on browser's tab, and also displays in search engine's result.

```
<title> Write the title here </title>
```

2. **<style> tag:** It is used to define internal CSS (Cascading Style Sheet). Internal CSS means style information is applicable for single html page.

```
<style>
p{
background-color: black;
color: white;
}
</style>
```

--The <p> elements of body section will be styled i.e. background color of the paragraph will be black and text color will be white.

3. **<meta> tag:** It is used to define the meta information about the web page. Meta information is helpful for web browsers and search engines. The meta information includes character encoding, descriptions of web page, keywords for search engine, author information etc.

```
<meta charset="UTF-8">
```

-- The text in webpage is encoded using Unicode.

```
<meta name="description" content="About NIELIT Gorakhpur">
```

-- It is used to give the descriptions about page which helps to search engine for finding the page.

```
<meta name="author" content="Ajay Verma">
```

-- It is used to give the author name in web page.

```
<meta name="keywords" content="Courses, CCC, O level, A level">
```

-- It is used to specify the keywords in the web page which helps to search engine for indexing and searching based on the keywords.

<meta> tag is also used to set the viewport of the web page i.e. visible area of the page for user. The visible area depends on the device' screen width where the web page is loaded and the screen size differs from one device to another. Mobile phones have smaller screen rather than computer screen. This viewport controls the scaling of screen.

```
<meta name="viewport" content="width=device-width, initial-scale=1.0">
```

-- width=device-width means the width of the page is set to follow the width of the device' screen and initial-scale=1.0 means the initial zoom level is 1.0 when the page is loaded on the browser for first time.

4. <link> tag: It is used to link the external style sheet to the html document. External CSS is applicable for multiple web pages.

```
<link rel="stylesheet" href="styleA.css">
```

-- This will provide the link of external CSS file (styleA.css) to the HTML document.

5. <script> tag: It is used to define the client side scripting usually JavaScript to the HTML document. The <script> tag can contain script elements/contents or it can also be used to point/link the external script file.

```
<script> ....  
....  
script contents / element here ...  
....  
</script>
```

```
<script src="fileA.js" type="text/javascript"
```

-- This will provide the link of external JavaScript file (fileA.js) to the HTML document.

Formatting Elements

- **Headings** in HTML are defined by using `<h1>`, `<h2>`, `<h3>`, `<h4>`, `<h5>`, `<h6>` tags. These are level of headings where `<h1>` is the largest level of heading and `<h6>` is the smallest level of heading.

Example: Heading

```
<!doctype html>
<html>
<head>
<title> HTML Heading </title>
</head>
<body bgcolor="green" text="white">
<h1> I am Heading Level 1 </h1>
<h2> I am Heading Level 2 </h2>
<h3> I am Heading Level 3 </h3>
<h4> I am Heading Level 4 </h4>
<h5> I am Heading Level 5 </h5>
<h6> I am Heading Level 6 </h6>
</body>
</html>
```

Output: Heading

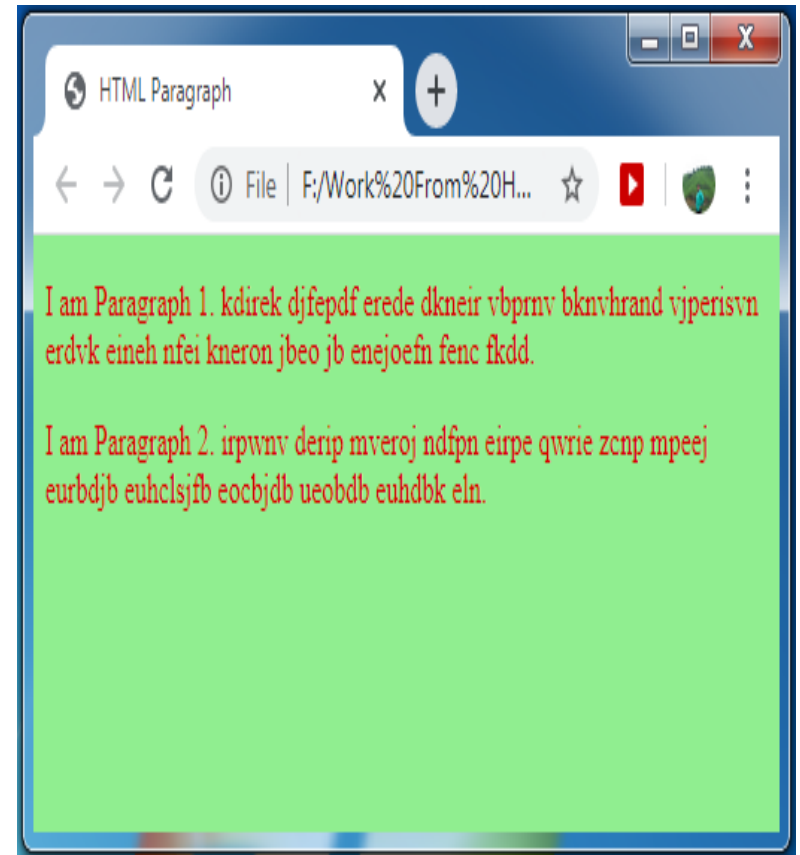


- **Paragraph** in HTML is defined by <p> tag.

Example: Paragraph

```
<!doctype html>
<html>
<head>
<title> HTML Paragraph </title>
</head>
<body bgcolor="lightgreen" text="darkwhite">
<p> I am Paragraph 1. kdirek djfepdf erede dkneir
vbprnv bknvhrand vjperisvn erdvk eineh nfei
kneron jbeo jb enejoefn fenc fkdd.</p>
<p> I am Paragraph 2. irpwnv derip mveroj ndfpn
eirpe qwrie zcnp mpeej eurbdjb euhclsjfb eocbjdb
ueobdb euhdbk eln. </p>
</body>
</html>
```

Output: Paragraph



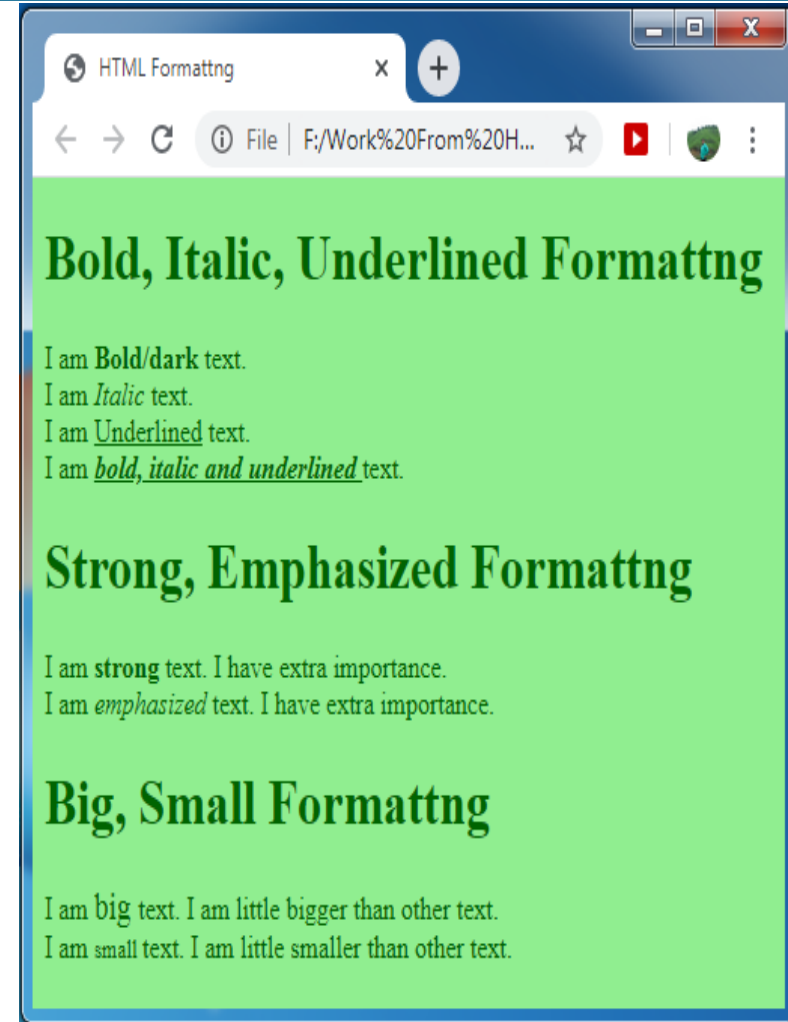
- HTML defines various elements for text formatting and styling. These tags are container tags because they act on a block of text. These elements are:

Element (Tag)	Description
	To bold/ dark the text
<i>	To italic the text
<u>	To underline the text
	It defines strong text, same as tag, but with extra importance on text.
	It defines emphasized text, same as <i>, but with extra importance on text.
<small>	It defines the smaller text than other text (in size)
<big>	It defines the bigger text than other text (in size)
<strike> or <s>	It defines the strikethrough effects on text.
<sup>	It defines superscript text i.e. above the base line (e.g. 10 th)
<sub>	It defines subscript text i.e. below the base line (e.g. H ₂ O)
<mark>	It defines the marked/highlighted text.
	It defines the deleted/removed text.
<ins>	It defines the inserted/edited text.
<tt>	It defines teletype (monospace) text which means each letter is displayed with equal fixed size width.

Example1: Formatting Elements *Elements*

Output1: Formatting

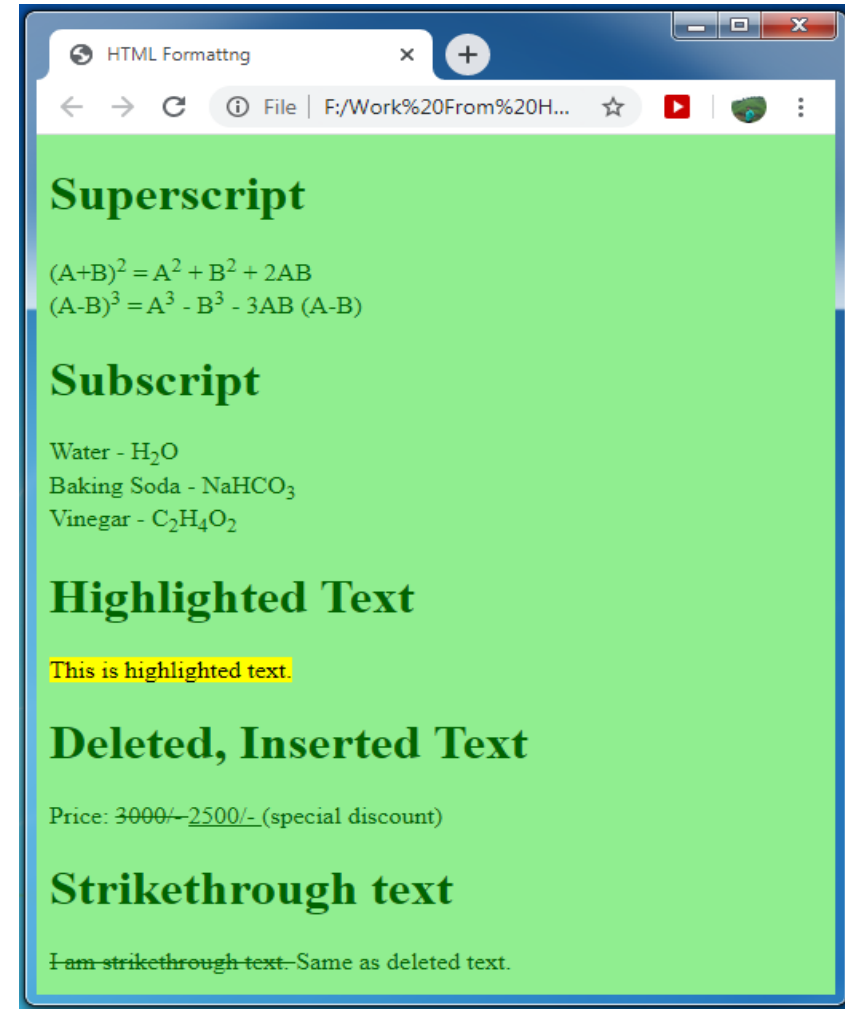
```
<!doctype html>
<html>
<head>
<title> HTML Formattnng </title>
</head>
<body bgcolor="lightgreen" text="darkgreen">
<h1> Bold, Italic, Underlined Formattnng </h1>
I am <b>Bold/dark</b> text. <br>
I am <i>Italic </i>text. <br>
I am <u> Underlined</u> text. <br>
I am <b> <i> <u>bold, italic and underlined </b></i></u> text.
<h1> Strong, Emphasized Formattnng</h1>
I am <strong>strong </strong> text. I have extra
importance.<br>
I am <em>emphasized </em>text. I have extra importance.
<h1> Big, Small Formattnng</h1>
I am <big>big </big> text. I am little bigger than other text.
<br>
I am <small>small </small>text. I am little smaller than other
text.</body></html>
```



Example2: Formatting Elements

Output2: Formatting

```
<!doctype html>
<html>
<head><title> HTML Formatng </title></head>
<body bgcolor="lightgreen" text="darkgreen">
<h1> Superscript</h1>
(A+B)<sup>2</sup> = A<sup>2</sup> + B<sup>2</sup> +
2AB <br>
(A-B)<sup>3</sup> = A<sup>3</sup> - B<sup>3</sup> -
3AB (A-B)
<h1> Subscript</h1>
Water - H<sub>2</sub>O <br>
Baking Soda - NaHCO<sub>3</sub> <br>
Vinegar - C<sub>2</sub>H<sub>4</sub>O<sub>2</sub>
<h1> Highlighted Text </h1>
<mark> This is highlighted text. </mark>
<h1> Deleted, Inserted Text </h1>
Price: <del>3000/- </del> <ins>2500/- </ins>(special discount)
<h1> Strikethrough text </h1>
<strike> I am strikethrough text. </strike> Same as deleted
text.</body></html>
```



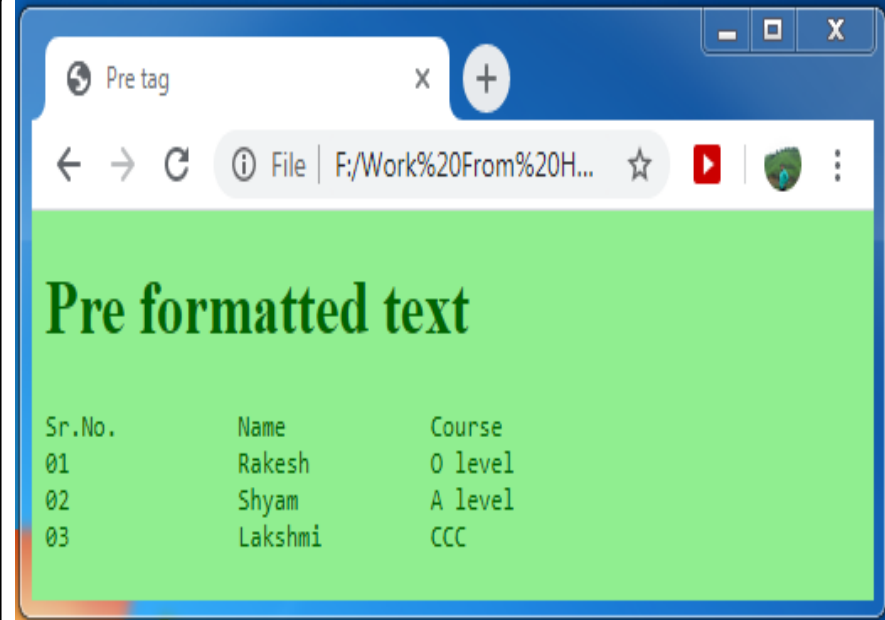
- **<pre> tag:** It is used to define pre - formatted text.

Suppose user wants to present tabular data on the web page. Then, <pre> tag can be used to display tabular data without using any additional tag. It preserves the spaces and line break as in the code.

Example2: Pre

```
<!doctype html>
<html>
<head><title> Pre tag </title></head>
<body bgcolor="lightgreen" text="darkgreen">
<h1> Pre formatted text </h1>
<pre>
Sr.No.          Name          Course
01              Rakesh        O level
02              Shyam         A level
03              Lakshmi       CCC
</pre></body></html>
```

Output2: Pre



Self-assessment for Day-02

1. What is shortcut for opening and saving notepad++ file?
 - a. Ctrl + O, Ctrl + S
 - b. Ctrl + S, Ctrl + O
 - c. Alt + O, Ctrl + S
 - d. Ctrl + O, Shift + S

Ans: a

2. Which tag is used to highlight the text in web document?
 - a. <highlight>
 - b. <mark>
 - c. <light>
 - d. <color>

Ans: b

3. Which tag defines the largest heading style?

- a. <h6>
- b. <high>
- c. <h1>
- d. <h>

Ans: c

4. HTML is _____.

- a. Programming Language
- b. Markup Language
- c. Low Level Language
- d. Machine Language

Ans: b

5. Which tag is used to insert line break?

- a. <break>
- b. <brk>
- c. <line>
- d.

Ans: d

• _____ is a language for creating web pages.

- HTTP
- HTML
- FTP
- DNS

Ans: HTML

• The WWW is a _____ client server service, in which a client using a browser can access a service using a server.

- Centralized
- Bounded
- Distributed
- Broad

Ans: Distributed

Thank you!