

Web Development: Web development is the work involved in developing a Web site for the Internet (World Wide Web) or an intranet (a private network). ... Among Web professionals, "Web development" usually refers to the main non-design aspects of building Web sites: writing markup and coding.

Website: A **website** is a collection of linked **web** pages (plus their associated resources) that share a unique domain name. Each **web** page of a given **website** provides explicit links—most of the time in the form of clickable portion of text—that allow the user to move from one page of the **website** to another. E.g., *www.google.com*, *www.facebook.com*, *www.sofsee.com* etc.

Webpage: A **web page** or **webpage** is a document, commonly written in HTML, that is viewed in an **Internet** browser. A **web page** can be accessed by entering a URL address into a browser's address bar. A **web page** may contain text, graphics, and hyperlinks to other **web** pages and files.

Web Browser: A **web browser**, or simply "**browser**," is an application used to access and view websites. Common **web browsers** include Microsoft **Internet** Explorer, Google Chrome, Mozilla Firefox, and Apple Safari. ... For **example**, Ajax enables a **browser** to dynamically update information on a webpage without the need to reload the page.

Domain Name: A domain name is a unique name that identifies a website. For example, the domain name of the Tech Terms Computer Dictionary is "techterms.com." Each website has a domain name that serves as an address, which is used to access the website.

Web Server: A web server is a computer that runs websites. It's a computer program that distributes web pages as they are requisitioned. The basic objective of the web server is to store, process and deliver web pages to the users. This intercommunication is done using Hypertext Transfer Protocol (HTTP). These web pages are mostly static content that includes HTML documents, images, style

sheets, test etc. Apart from HTTP, a web server also supports SMTP (Simple Mail transfer Protocol) and FTP (File Transfer Protocol) protocol for emailing and for file transfer and storage.

HTML (Hyper Text Markup Language)

HTML is short for Hyper Text Markup Language and is the language of the World Wide Web. It is the standard text formatting language used for creating and displaying pages on the Web. HTML documents are made up of two things: the content and the tags that format it for proper display on pages. HTML first **developed** by Tim Berners-Lee in 1990.

HTML Tags: An **HTML tag** is a special word or letter surrounded by angle brackets, < and >. **HTML tags** are the hidden keywords within a web page that define how your web browser must format and display the content. Most tags must have two parts, an opening and a closing part.

For example, <html> is the opening tag and </html> is the closing tag. Note that the closing tag has the same text as the opening tag, but has an additional forward-slash (/) character in some cases. Imagine HTML tag as a house which has a door through which you can enter and come out.

HTML Tags Can Be of Two Types:

1. Paired Tags

Paired tags have an opening and closing tag. The opening tag is similar to the single tag <head>, and the closing has first slash </head>, between them, write some content (text, images or something else) and for this, they are called containers.

2. Singular Tags: A tag is set to be a singular tag when there is no closing tag for that or Tag is said to be singular tag when there is no companion tag.

For example, <hr>,
.

HTML TAGS:

HTML Basic Tags:

There are three document level tag on HTML document which are <html>, <head> and <body> tags.

The <HTML> tag: This tag surrounds the entire HTML document. It indicates the browser, where the document begins and ends.

Syntax: <HTML> content of the document </HTML>

The <HEAD> Tag: This tag marks the beginning and ending of the heading section. It contains information about the page, script etc.<head> tag may contain <title>, <base>, <meta>, <isindex> etc>

Syntax: <head> <title> Home Page</title></head>

The <TITLE> tag: This tag appears between tags. This tag is used to type of title of html. Document which is displayed on the title bar.

Syntax: <title> text for title</title>

The <BODY> tag: This tag is used for the main body of the HTML document. This tag contains text, images, links etc.

Syntax: <body>Text and other tag</body>

Some tags:

Tags	Definition
bold	Display text in boldface style.
<i>italic</i>	Display text in italic face style.
	Display font, color, and size of text.
^{Superscript}	This tag is used to give superscript effect to the text. it displays the text just above the normal text.
_{Subscript}	This tag is used to give subscript effect to the text. It displays the text just below the normal text.

<center>Welcome</center>	This tag is used to center a text, images, table etc.
<h1>Heading One</h1>	Displays the text on Heading one.
<h2>Heading Two</h2>	Displays the text on Heading Two.
<h3>Heading Three</h3>	Displays the text on Heading Three.
<h4>Heading Four</h4>	Displays the text on Heading Four.
<h5>Heading Five</h5>	Displays the text on Heading Five.
<h6>Heading Six</h6>	Displays the text on Heading Six.
<style> Give style</style>	This tag is used to embed style information in the document.
<link>Linking Page</link>	This tag can be used to link the page to the other document such as style sheet or a java document.
<body bgcolor="red">and </body>	This tag is used to change the default background color to whatever color is specify with tag.
<p> The Quick brown </p>	This tag is used to create a paragraph.
<big>and</big>	This tag is used to displays text one font size large then the surrounding text.
<small>and</small>	This is used to reduce text by one point (.pt)
<s>and</s> or <strike> and </strike>	Display text as strike through.
and	This tag is used to display in bold text
text	Display text strikethrough.
<u>Underline</u>	Display text Underline.
	This tag is used to insert images.
 Click Me	This tag is used to create a hyperlink following changes will: Appear: Underline text, blue text color.
List tags	
and or <ul type="circle">..<	Display unordered list or bullets
and or <ol type="a">..<	Ordered list or numbering
and	Display list items
Table Tags	

<table>and</table>	Display table
Table attributes: Border order=1	Border Displays the border size
Width=250 Height=200 bgcolor="#ffffcc" align="center">	Width and height fix the width and height of table. Align displays the table aligns.
<tr>and</tr>	Used for starting new raw
<th>and</th>	Displays table heading
<td>and</td>	Display table data
<td colspan=2>....</td>	Used to create the table cell width merging columns.
<td rowspan=2>...</td>	Used to create the table cell width merging table rows.
Form Tags:	
<form>and</form>	Start and end form
<input type="text" name="fname">	Display the text field. It is single tag.
<textarea name="textarea">and</textarea>	Display text area.
<input type="submit" Value="submit">	Display submit button.
<input type="checkbox">	Display the check box. It is used to select the multiple options.
<input type="radio">	Display the radio button which is used to select the multiple options.
Some Other tags:	
 	Breaks the line
<hr>	Draw the horizontal ruler of line
 	
<fieldset>	tag draws a box around the related elements.
<legend>	tag draws a box around the related elements.

HTML Syntax:

```
<!DOCTYPE html>

<html>

<head>

<title> Type Your Page Title </title>

</head>

<body><p>Type Paragraph..... </p>

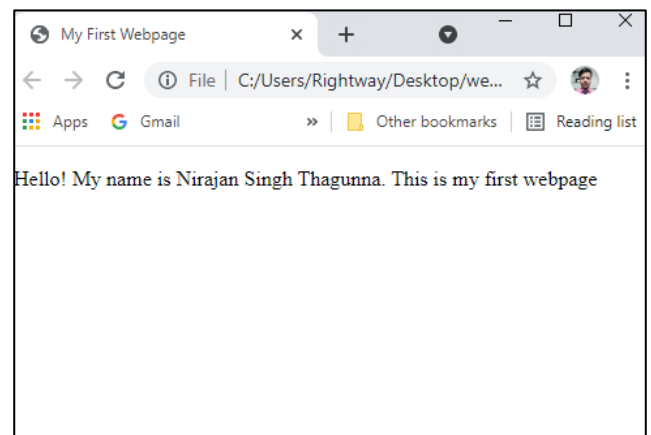
</body>

</html>
```

Example:

Open Notepad: WINDOWS+R and type 'notepad' and click on enter. Type your html codes....

```
<DOCTYPE html>
<html>
<head><title>My First Webpage</title></head>
<body><p>Hello! My name is Nirajan Singh
Thagunna.
This is my first webpage</p>
</body>
</html>
```

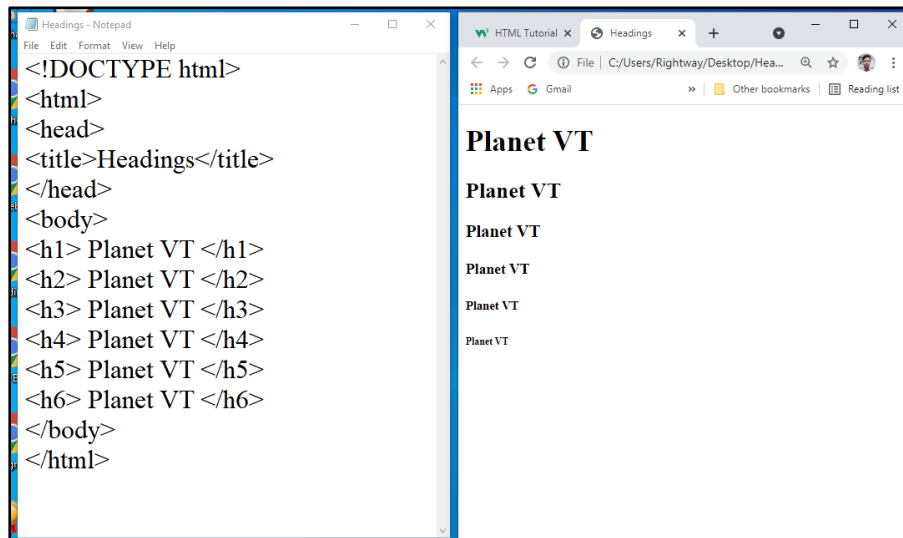


Saving Process: **Ctrl+S** > choose location and give filename.html or .htm and click on enter.

- The text between <html> and </html> describes the webpage.
- The text between <body> and </body> is visible page content.
- The text between <h1> and </h1> is displayed as a heading.
- The text between <p> and </p> is displayed as a paragraph.
- The text between <title>and</title> is displayed as a title of webpage.

HTML Headings: Html headings are defined with the <h1> to <h6> tags. The heading tag helps you to change the font size of the text. The larger-level header format is <h1> and the smallest level header format is </h6>.

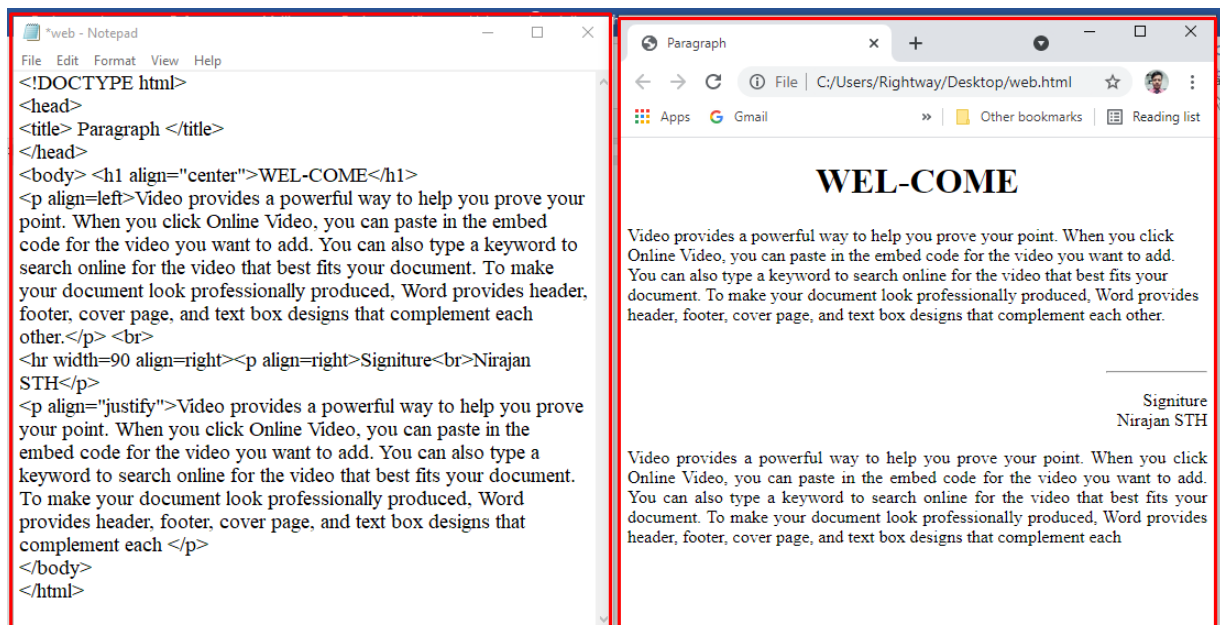
Example:



HTML Paragraph:

Paragraph break separates a line in the text material. This `<p>` or `<pre>` tag helps to browse, move onto a new line, skipping one line between the pervious line and the new line. It has an attribute called align which takes CENTER, LEFT, RIGHT and JUSTIFY.

Example:



Font Style:

These font styles tags help to change the appearance of the text in your HTML document. It is very useful to prepare an attractive text. It is a paired tag.

Attributes:

Tag	Description
<i>	Defines Italic Text
	Defines Bold Text
<u>	Define Underline
<sub>	Defines subscript
<sup>	Defines superscript
<big>	Defines Big Text
	Defines emphasized Text
<i>	Defines Italic Text
<small>	Defines Small Text
	Defines Strong text
<strike> <s> 	Defines Strikethrough

Fonts:

Face: Defines font text **Size:** Define size of text **Color:** Define Color of text

Example:

```

<html>
<head>
<title> Font Styles</title>
</head>
<body> <h1 align="center"><u><b>WEL-
COME</b></u></h1>
<p><font face="Algerian" color="red" size=6>Welcome
To All</font> </p> <p><font face="preeti" color="green"
size=6><b>Knfg]6 eL6L</b></font>
<h2>Subscript: CO<sub>2</sub>, H<sub>2</sub>O<br>
Superscript: x<sup>2</sup>+y<sup>2</sup>
<center><i><b><u>Thanks for Visit Planet
VT</u></b></i></center></h2>
<p>HTML is short for <b> Hyper Text Markup
Language</b> and is the language of the World Wide
Web. It is the standard text formatting language used for
creating and displaying pages on the Web. HTML
documents are made up of two things: the content and the
tags that format it for proper display on pages. <i><u>
HTML first developed by Tim Berners-Lee in 1990.
</i></u></p>
</body>
</html>

```

Font Styles

File | C:/Users/Rightway/Desktop/web.html

Apps Gmail Other bookmarks Reading list

WEL-COME

WELCOME TO ALL

प्लानेट भीटी

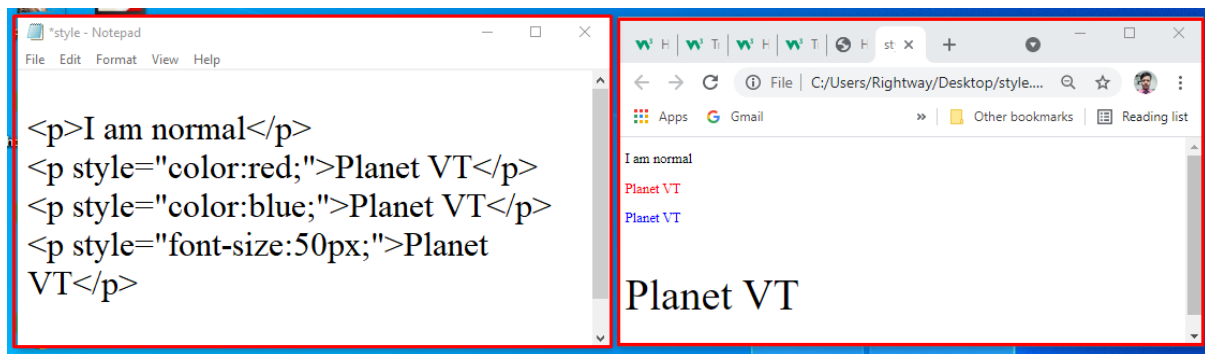
Subscript: CO₂, H₂O

Superscript: x²+y²

Thanks for Visit Planet VT

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The HTML **style** attribute is used to add styles to an element, such as color, font, size, and more.



Lists:

HTML lists allow web developers to group a set of related items in lists.

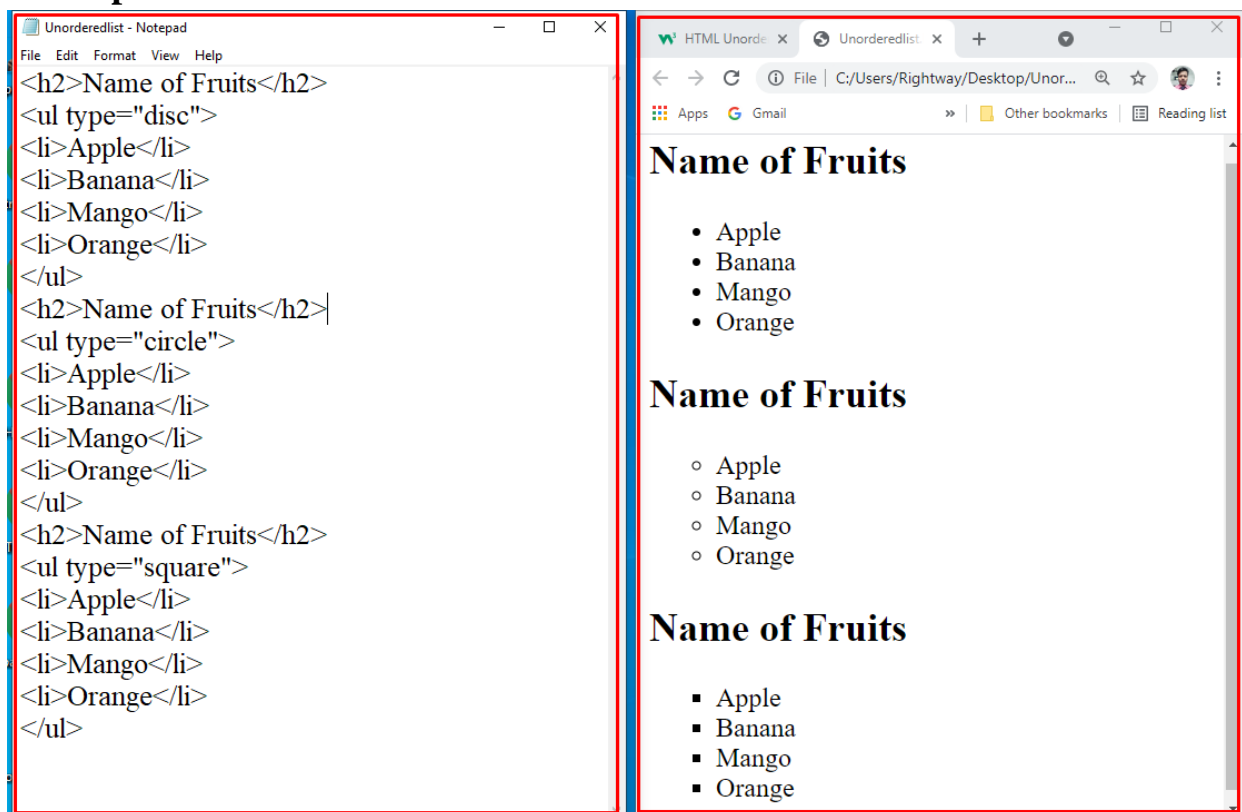
Unordered list:

The HTML **** tag defines an unordered (bulleted) list.

Value	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

**** Defines as a list item.

Example:



Ordered List:

The HTML `` tag defines an ordered list. An ordered list can be numerical or alphabetical.

Ordered HTML List

An ordered list starts with the `` tag. Each list item starts with the `` tag.

The list items will be marked with numbers by default:

Ordered HTML List - The Type Attribute

The `type` attribute of the `` tag, defines the type of the list item marker:

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

Example:

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

```
<h3>Name of Computer Trainner</h3>
<ol type="a">
<li>Nirajan STH</li>
<li>Bikram Basnet</li>
<li>Bibek Joshi</li>
<li>Bisna Bist</li>
</ol>

<h3>Name of Subject</h3>
<ol type="A" start="3">
<li>Nepali</li>
<li>Math</li>
<li>Science</li>
<li>Computer</li>
</ol>

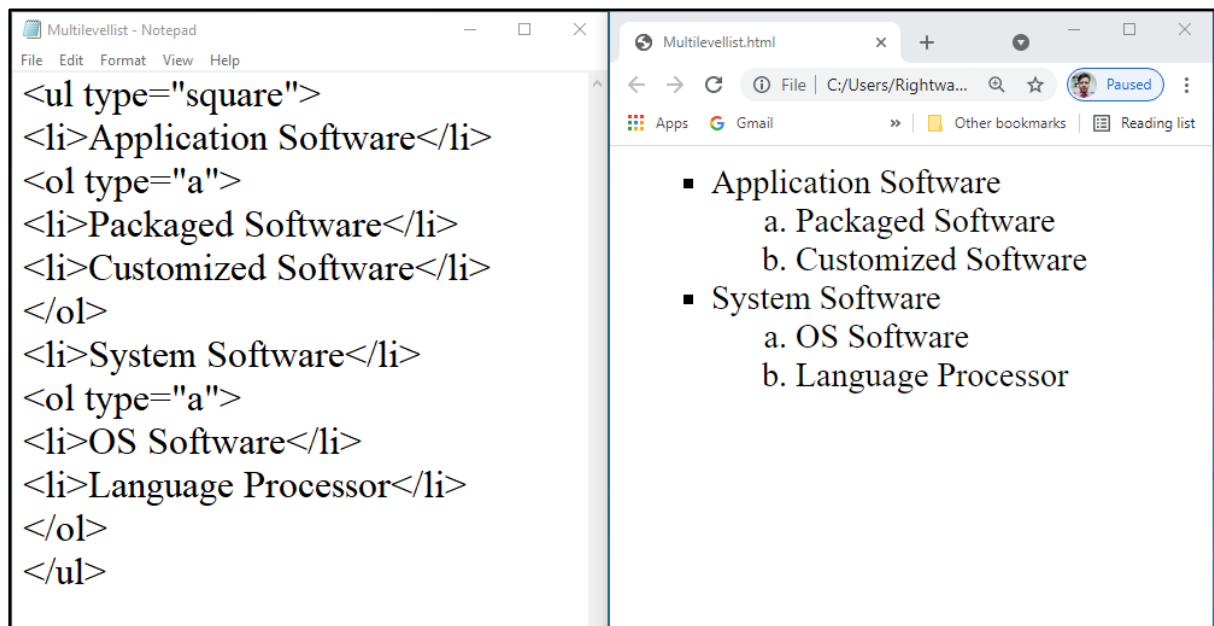
<h3>Name of Subject</h3>
<ol type="a" start="26">
<li>Nepali</li>
<li>Math</li>
<li>Science</li>
<li>Computer</li>
</ol>
```

On the right, a web browser displays the rendered output of this code. It shows three sections, each with a heading and an ordered list:

- Name of Computer Trainner**
 - a. Nirajan STH
 - b. Bikram Basnet
 - c. Bibek Joshi
 - d. Bisna Bist
- Name of Subject**
 - C. Nepali
 - D. Math
 - E. Science
 - F. Computer
- Name of Subject**
 - z. Nepali
 - aa. Math
 - ab. Science
 - ac. Computer

Multilevel List:

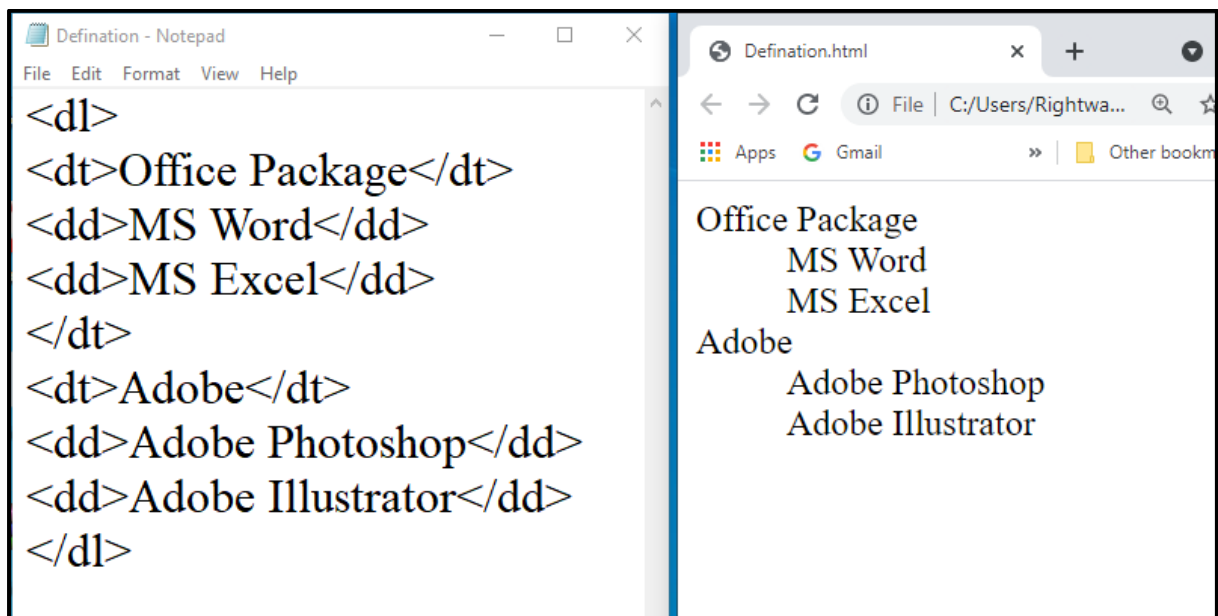
Example:



Definition list and Usage

The <dl> tag defines a description list.

The <dl> tag is used in conjunction with <dt> (defines terms/names) and <dd> (describes each term/name).



HTML Table:

- A table looks like a spreadsheet
- Tables are made up of cells, laid out in rows and columns, similar to a chess board
- A cell can contain data, text or images
- Cells can be combined horizontally or vertically

Tables are created with the double-sided table tag:

```
<table border="1">.....</table>
```

How to columns, rows, cells

`<tr>...</tr>` creates a table row stands for table row

`<td>...</td>` creates the actual cell, and stands for table data

`<th>...</th>` creates a table header which is bold and centered.

Example:

Name	Address
Nirajan	DRC
Amrit	KTM
Amrita	POK

```
<table border="1">  
<tr><th>Name</th><th>Address</th></tr>  
<tr><td>Nirajan</td><td>DRC</td></tr>  
<tr><td>Amrit</td><td>KTM</td></tr>  
<tr><td>Amrita</td><td>POK</td></tr>  
</table>
```

Colspan:

The **colspan** attribute in **HTML** specifies the number of columns a cell should span. It allows the single table cell to span the width of more than one cell or column. `<td colspan=2>.....</td>`

Example:

Planet VT	
Name	Address

```
<table border="1">  
<tr><td colspan=2>IT Zone Computer</td></tr>  
<tr><td>Name</td><td>Address</td></tr>  
</table>
```

Rowspan: The **rowspan** attribute in **HTML** specifies the number of rows a cell should span. That is if a row spans two rows, it means it will take up the space of two rows in that table. It allows the single table cell to span the height of more than one cell or row.

Example:

Planet VT	
IT	ZONE
	Computer
	Education

```
<table border="1">
<tr><th colspan=2>IT Zone Computer</th></tr>
<tr><td rowspan=3>IT</td><td>ZONE</td></tr>
<tr><td>Computer</td></tr>
<tr><td>Education</td></tr>
</table>
```

Table height, width, bgcolor:

Planet VT	
IT	ZONE
	Computer
	Education

```
<table border="1" height=250 width=250 bgcolor=pink>
<tr><th colspan=2>IT Zone Computer</th></tr>
<tr><td rowspan=3>IT</td><td>ZONE</td></tr>
<tr><td>Computer</td></tr>
<tr><td>Education</td></tr>
</table>
```

Cellspacing: The **HTML** **<table>** **cellspacing Attribute** is used to *specify the space between the cells*. The cellspacing attribute is set in terms of pixels.

Planet VT	IT ZONE
BigTech	TechBook

```
<table border="1" cellspacing=15>
<tr><td>IT Zone Computer</td><td>IT
ZONE</td></tr>
<tr><td>BigTech</td><td>TechBook</td></tr>
</table>
```

Cell padding is the space between **cell** borders and the content within a **cell**. To set **cell padding in HTML**, use the style attribute.

Planet VT	IT ZONE
BigTech	TechBook

```
<table border="1" width=250 cellpadding=25>
<tr><td>IT Zone Computer</td><td>IT ZONE</td></tr>
<tr><td>BigTech</td><td>TechBook</td></tr>
</table>
```

HTML Images:

The image tag is used to insert images (picture) into the HTML document that should be displayed in the browser screen.

Attributes

SRC	It defines the name of the file in which image is to be found.
Width	To specify the width of the image in pixels.
Height	To specify the height of the image in pixels.
Align	To warp the text around the image file.
ALT	To display the alternate text.

Syntax for defining an image:

```

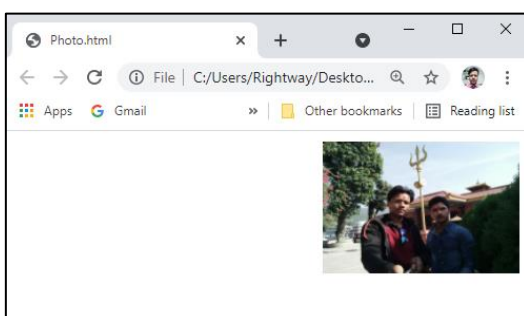
```

HTML Images -The URL Attribute: The URL points to the location where the image is stored. The browser displays the image where the tag occurs in the document. If you put an image tag between two paragraphs. The browser shows the first paragraph, then the image, and then the second paragraph.

HTML Images – The Alt Attribute: The required alt attribute specifies an alternate text for an image, if the image cannot be displayed. The value of the alt attribute is an author – defined text:

Image syntax:

Example:



```

```

HTML Link:

The HTML `<a>` tag defines a hyperlink. It has the following syntax:

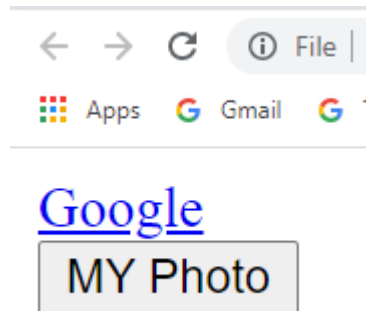
```
<a href="url">link text</a>
```

The most important attribute of the `<a>` element is the `href` attribute, which indicates the link's destination.

The *link text* is the part that will be visible to the reader.

Clicking on the link text, will send the reader to the specified URL address.

Example:

A screenshot of a web browser interface. The address bar shows navigation icons (back, forward, refresh) and a menu with 'File'. Below the address bar are links for 'Apps', 'Gmail', and a search icon. The main content area displays the 'Google' logo in blue and a rectangular button with the text 'MY Photo' in black.

```
<a href="www.google.com">Google</a><br>
<a href="photo.html"><button>MY Photo</button></a>
```

HTML Forms and Input: **HTML Form** is a document which stores information of a user on a web server using interactive controls. An **HTML form** contains different kind of information such as username, password, contact number, email id etc. The elements used in an **HTML form** are check box, input box, radio buttons, submit buttons etc.

First name: `<input type="text" name="firstname">` `
`

Last Name: `<input type="text" name="lastname">`

Password: `<input type="password" name="pwd">`

First name:	<input type="text"/>
Last Name:	<input type="text"/>
Password:	<input type="password"/>

Radio Buttons:

Definition and Usage:

The `<input type="radio">` defines a radio button.

Radio buttons are normally presented in radio groups (a collection of radio buttons describing a set of related options). Only one radio button in a group can be selected at the same time.

Note: The radio group must have share the same name (the value of the `name` attribute) to be treated as a group. Once the radio group is created, selecting any radio button in that group automatically deselects any other selected radio button in the same group. You can have as many radio groups on a page as you want, as long as each group has its own name.

Note: The `value` attribute defines the unique value associated with each radio button. The value is not shown to the user, but is the value that is sent to the server on "submit" to identify which radio button that was selected.

Example:

Gender: <input type="radio"/> Male <input type="radio"/> Female	Gender: <input type="radio" name="gender" value="male">Male <input type="radio" name="gender" value="male">Female
--	---

Checkbox:

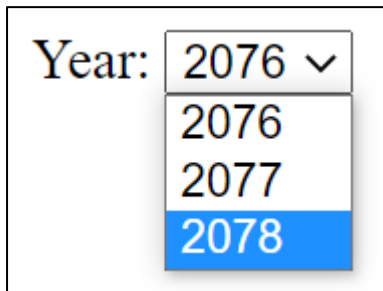
Definition and Usage:

The `<input type="checkbox">` defines a checkbox.

The checkbox is shown as a square box that is ticked (checked) when activated. Checkboxes are used to let a user select one or more options of a limited number of choices. **Example:**

Your Course: <input type="checkbox"/> Basic Computer <input type="checkbox"/> Computer Operating <input checked="" type="checkbox"/> Diploma in Computer	Your Course: <input type="checkbox"> Basic Computer <input type="checkbox"> Computer Operating <input type="checkbox"> Diploma in Computer
---	---

Select:

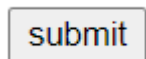


Year:

```
<select>
<option>2076</option>
<option>2077</option>
<option>2078</option>
</select>
```

Submit Button:

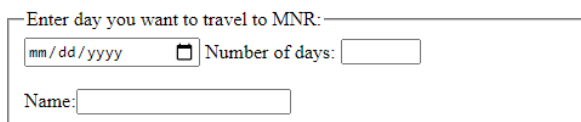
`<input type="submit">` defines a submit button. A submit button is used to send from data to a server, The data is sent to the page specifics in the form's action attribute. The file defined in the action attribute usually does something with the received input.

 `<input type="submit" value="submit">`

<fieldset>, <legend>, Date:

<fieldset>: Definition and Usage. The **<fieldset>** tag is used to group related elements in a form. The **<fieldset>** tag draws a box around the related elements.

<legend>: Definition and Usage ... The **<legend>** tag defines a caption for the **<fieldset>** element. Browser Support. Element. **<legend>** ...



```
<form>
<fieldset>
<legend>Enter day you want to travel to
MNR:</legend>
<input type="date" name="day">
Number of days: <input type="number"
name="numdays" min="1" max="10">
<br><br>
Name:<input type="text">
</fildset>
</form>
```

<audio>: Definition and Usage ... The

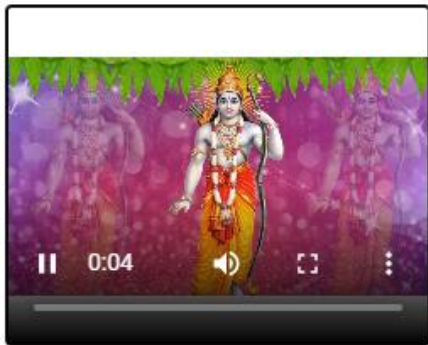
<audio> tag is used to embed sound content in a document, such as music or other audio streams.



```
<audio controls >
<source
src="C:\Users\Rightway\Desktop\nepalisong.mp3">
</audio>
```

<video>

Definition and Usage ... The **<video>** tag is used to embed **video** content in a document, such as a movie clip or other **video** streams.



```
<video controls="videcontrols" height=200 width=250>  
<source src="C:\Users\Rightway\Desktop\Ramrach.webm">  
</video>
```

Iframe:

Significance of Iframe in HTML: The iframe in HTML stands for **Inline Frame**. The "iframe" tag defines a rectangular region within the document in which the browser can display a separate document, including scrollbars and borders. An inline frame is used to embed another document within the current HTML document.

Iframe is basically used to show a webpage inside the current web page.

Syntax: <iframe src="url" height="..." width="..."></iframe>

The 'src' attribute is used to specify the URL of the document that occupies the iframe.