UNIT 4

World Wide Web?

World Wide Web, which is also known as a Web, is a collection of websites or web pages stored in web servers and connected to local computers through the internet. These websites contain text pages, digital images, audios, videos, etc. Users can access the content of these sites from any part of the world over the internet using their devices such as computers, laptops, cell phones, etc. The WWW, along with internet, enables the retrieval and display of text and media to your device.

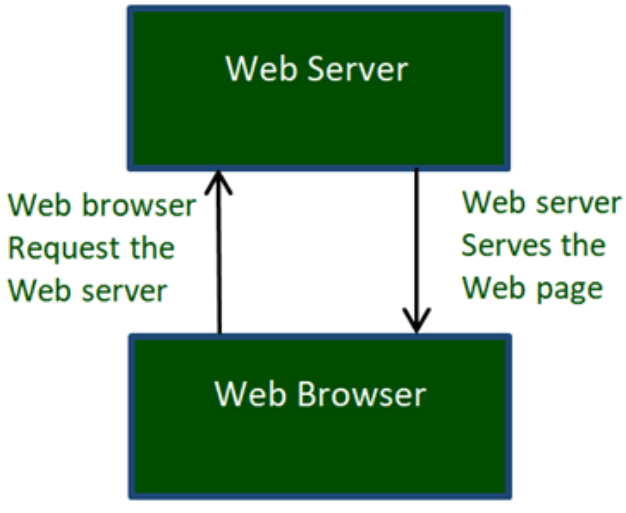
A web page is given an online address called a Uniform Resource Locator (URL). A particular collection of web pages that belong to a specific URL is called a website, e.g., *www.facebook.com*, *www.google.com*, etc. So, the World Wide Web is like a huge electronic book whose pages are stored on multiple servers across the world.Small websites store all of their WebPages on a single server, but big websites or organizations place their WebPages on different servers in different countries so that when users of a country search their site they could get the information quickly from the nearest server.

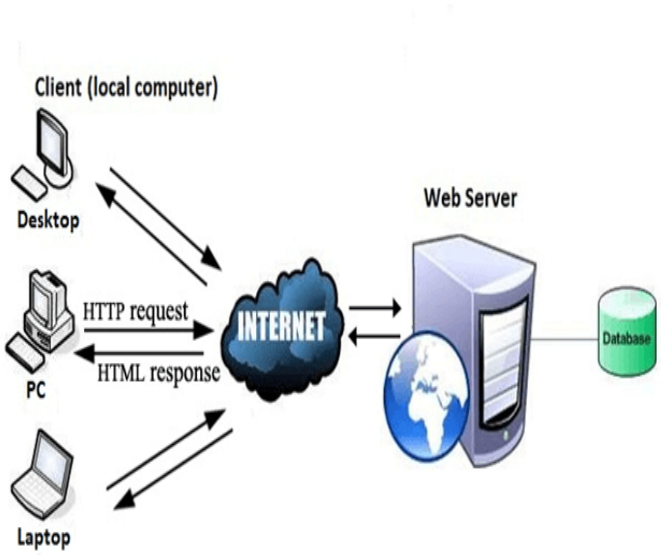
The World Wide Web was invented by a British scientist, Tim Berners-Lee in 1989. He was working at CERN at that time. Originally, it was developed by him to fulfill the need of automated information sharing between scientists across the world, so that they could easily share the data and results of their experiments and studies with each other.

CERN, where Tim Berners worked, is a community of more than 1700 scientists from more than 100 countries. These scientists spend some time on CERN site, and rest of the time they work at their universities and national laboratories in their home countries, so there was a need for reliable communication tools so that they can exchange information.

How the World Wide Web Works?

Now, we have understood that WWW is a collection of websites connected to the internet so that people can search and share information. Now, let us understand how it works!

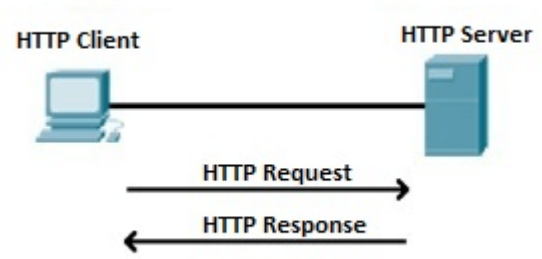




The Web works as per the internet's basic client-server format as shown in the following image. The servers store and transfer web pages or information to user's computers on the network when requested by the users. A web server is a software program which serves the web pages requested by web users using a browser. The computer of a user who requests documents from a server is known as a client. Browser, which is installed on the user' computer, allows users to view the retrieved documents.

Hypertext Transfer Protocol (HTTP):

Hyper Text Transfer Protocol (HTTP) is an application layer protocol which enables WWW to work smoothly and effectively. It is based on a client-server model. The client is a web browser which communicates with the web server which hosts the website. This protocol defines how messages are formatted and transmitted and what actions the Web Server and browser should take in response to different commands. When you enter a URL in the browser, an HTTP command is sent to the Web server, and it transmits the requested Web Page.



When we open a website using a browser, a connection to the web server is opened, and the browser communicates with the server through HTTP and sends a request. HTTP is carried over TCP/IP to communicate with the server. The server processes the browser's request and sends a response, and then the connection is closed. Thus, the browser retrieves content from the server for the user.

Web Browser

A browser is a software program that is used to explore, retrieve, and display the information available on the World Wide Web. This information may be in the form of pictures, web pages, videos, and other files that all are connected via hyperlinks and categorized with the help of URLs (Uniform Resource Identifiers). For example, you are viewing this page by using a browser.

A browser is a client program as it runs on a user computer or mobile device and contacts the webserver for the information requested by the user. The web server sends the data back to the browser that displays the results on internet supported devices. On behalf of the users, the browser sends requests to web servers all over the internet by using HTTP (Hypertext Transfer Protocol). A browser requires a smartphone, computer, or tablet and internet to work.

Examples of Web Browser

- The **WorldWideWeb** was the first web browser. It was created by W3C Director Tim Berners-Lee in **1990**. Later, it was renamed **Nexus** to avoid confusion caused by the actual World Wide Web.
- The **Lynx NCSA Mosaic**,**Netscape Navigator**, **Internet Explorer** ,**Opera, Apple's Safari** , **Mozilla Firefox** , **Mobile Safari** , **Google Chrome** , **Opera Mini** , **Edge**

Features of Web Browser

1. **Refresh button:** Refresh button allows the website to reload the contents of the web pages. Most of the web browsers store local copies of visited pages to enhance the performance by using a caching mechanism. Sometimes, it stops you from seeing the updated information; in this case, by clicking on the refresh button, you can see the updated information.

2. **Stop button:** It is used to cancel the communication of the web browser with the server and stops loading the page content. For example, if any malicious site enters the browser accidentally, it helps to save from it by clicking on the stop button.
3. **Home button:** It provides users the option to bring up the predefined home page of the website.
4. **Web address bar:** It allows the users to enter a web address in the address bar and visit the website.
5. **Tabbed browsing:** It provides users the option to open multiple websites on a single window. It helps users to read different websites at the same time. For example, when you search for anything on the browser, it provides you a list of search results for your query. You can open all the results by right-clicking on each link, staying on the same page.
6. **Bookmarks:** It allows the users to select particular website to save it for the later retrieval of information, which is predefined by the users.

URL (Uniform Resource Locator)

A **uniform resource locator** is the address of a resource on the internet or the World Wide Web. It is also known as a web address or uniform resource identifier (URI). For example, **https: www.javatpoint.com**, which is the URL or web address for the javatpoint website. A URL represents the address of a resource, including the protocol used to access it.
A URL includes the following information:

- It uses the protocol to access the resource.
- It defines the location of a server by IP address or the domain name.
- It includes a fragment identifier, which is optional.
- It contains the location of the resource in the directory of the server.

A URL forwards user to a particular online resource, such as a video, webpage, or other resources. For example, when you search information on Google, the search results display the URL of the relevant resources in response to your search query. The title which appears in the search results is a hyperlink of the URL of the webpage. It is a **Uniform Resource Identifier**, which refers to all kinds of names and addresses of the resources on the webservers. URL's first part is known as a **protocol identifier**, and it specifies the protocol to use, and the second part, which is known as a resource name, represents the IP address or the domain name of a resource. Both parts are differentiated by a colon and two forward slashes like http://www.javatpoint.com**.**

SERVER

A server commonly refers to a computer program that receives and responds to requests made over a network. It receives the request for a web document from the client and sends the requested information to the client computer on the Internet. A device can be both a client and a server at the same time, as an individual system has the ability to provide resources and use them from another system in one go. There are different types of servers, including mail servers, virtual servers, and web servers.

Web Server

A web server offers web pages or other content to the web browser by loading the information from a disc and transfer files by using a network to the user's web browser. It is used by a computer or collection of computers to provide content to several users over the internet. This exchange was done with the help of HTTP communicating between the browser and the server. There are some examples of web servers given below; you can also download these web servers from given below *download links:*

- Apache: https://www.apache.org/
- Tomcat: https://tomcat.apache.org/

Web Hosting

Web hosting refers to a service provided by the web host to websites to make them available for the users on the internet. It gives you space on its server that allows you to post your website on the internet. Without a web host or web hosting, your site can not be viewed by the users, so after creating a site, you will need a web hosting service.

The web host stores your website or webpages in high-powered computers, which are known as **Servers**. When Internet users want to view your website, all they need to do is type your website address or domain into their browser. Their computer will then connect to your server, and your webpages will be delivered to them through the browser.
A web hosting is a service that allows users to post a website or web pages onto the internet. Website data is hosted or stored on special computers known as servers. To access any website, the user needs to type the website address (Domain Address) into the browser's address bar. After that, the browser will connect the user to the server, and the webpage will be displayed through the browser.

DNS: Domain Name System

DNS stands for Domain Name System. The internet world is completely based on IP (Internet Protocol) address. To access any website you need to know its IP address which is a long numeric code and is not possible to learn.
Now, here comes the role of DNS. A DNS is an internet service that translates a domain name into corresponding IP address. Domain name used here is alphabetic and can be easily remembered.
For example, **www.example.com** is a domain name of a site. And with the help of DNS it will get translate into its IP address 198.105.232.4.

How DNS works

DNS works with the help of DNS servers. When a user enters the domain name into the web browser, the request goes to the DNS server. The DNS server determines the IP address using a look-up table. Then it sends the requested information to user?s web browser through proper servers.

Furthermore, a DNS system has its own network. If one DNS server does not know how to translate a particular domain name, it will ask another server, then another server, and so on, until they find out the correct IP address. A DNS server holds a list of all IP addresses along with its domain names, which can be retrieved when required.

W3C:

W3C stands for **World Wide Web Consortium**.

It is basically the main international establishment for the **WWW(World Wide Web)**. The main motive behind the World Wide Web Consortium is to lead the web to its full potential and to ensure regular development of the web. It serves the purpose of developing various protocols in order to ensure the growth of the web. It consists of organizations that provide full time working for staff in order to ensure the development of the web. Currently, the W3C is being led by Tim Berners-Lee and has a staff of 443 members. The main headquarters of W3C is located in Cambridge, Massachusetts, United

The World Wide Web Consortium (W3C) is an international community where Member organizations, a full-time staff, and the public work together to develop Web standards. Led by Web inventor and Director Tim Berners-Lee and CEO Jeffrey Jaffe**,** W3C's mission is to lead the Web to its full potential. Contact W3C for more information.

Characteristics of W3C

- It is responsible for creating and publishing web standards.
- It also ensures the growth and development of web.
- It also develops the standards for web scripting, web applications and other dynamic contents.
- It is an organization which helps in the promotion of interoperability by the promotion and designing of open protocols.
- W3C uses the principles of modularity, simplicity and extensibility while designing web protocols.

HTML

HTML is an acronym which stands for **Hyper Text Markup Language** which is used for creating web pages and web applications. Let's see what is meant by Hypertext Markup Language, and Web page.

Hyper Text: HyperText simply means "Text within Text." A text has a link within it, is a hypertext. Whenever you click on a link which brings you to a new webpage, you have clicked on a hypertext. HyperText is a way to link two or more web pages (HTML documents) with each other.

Markup language: A markup language is a computer language that is used to apply layout and formatting conventions to a text document. Markup language makes text more interactive and dynamic. It can turn text into images, tables, links, etc.

- HTML stands for HyperText Markup Language.
- HTML is used to create web pages and web applications.
- HTML is widely used language on the web.
- We can create a static website by HTML only.
- Technically, HTML is a Markup language rather than a programming language.

XHTML

XHTML stands for **EXtensible HyperText Markup Language.** It is a cross between HTML and XML language.XHTML is almost identical to HTML but it is stricter than HTML. XHTML is HTML defined as an XML application. It is supported by all major browsers.

Although XHTML is almost the same as HTML but It is more important to create your code correctly, because XHTML is stricter than HTML in syntax and case sensitivity. XHTML documents are well-formed and parsed using standard XML parsers, unlike HTML, which requires a lenient HTML-specific parser.

XHTML was developed to make HTML more extensible and increase interoperability with other data formats. There are two main reasons behind the creation of XHTML:

- It creates a stricter standard for making web pages, reducing incompatibilities between browsers. So it is compatible for all major browsers.
- It creates a standard that can be used on a variety of different devices without changes.

Changes in Document Structure

- All documents must have a DOCTYPE.
- The xmlns attribute in <html> is mandatory and must specify the xml namespace for the document.
- <html>, <head>, <title>, and <body> are mandatory with their respective closing tags.
- All XHTML tags must be in lower case.
- All XHTML tags must be closed.
- All XHTML tags must be properly nested.
- The XHTML documents must have one root element.

DHTML

DHTML stands for **Dynamic Hypertext Markup language** i.e., **Dynamic HTML**.Dynamic HTML is not a markup or programming language but it is a term that combines the features of various web development technologies for creating the web pages dynamic and interactive.The DHTML application was introduced by Microsoft with the release of the 4th version of IE (Internet Explorer) in 1997.

Components of Dynamic HTML

DHTML consists of the following four components or languages:

- HTML 4.0
- CSS
- JavaScript
- DOM.

HTML 4.0

HTML is a client-side markup language, which is a core component of the DHTML. It defines the structure of a web page with various defined basic elements or tags.

CSS

CSS stands for Cascading Style Sheet, which allows the web users or developers for controlling the style and layout of the HTML elements on the web pages.

JavaScript

JavaScript is a scripting language which is done on a client-side. The various browser supports JavaScript technology. DHTML uses the JavaScript technology for accessing, controlling, and manipulating the HTML elements. The statements in JavaScript are the commands which tell the browser for performing an action.

DOM

DOM is the document object model. It is a w3c standard, which is a standard interface of programming for HTML. It is mainly used for defining the objects and properties of all elements in HTML.

Uses of DHTML

Following are the uses of DHTML (Dynamic HTML):

- It is used for designing the animated and interactive web pages that are developed in real-time.
- DHTML helps users by animating the text and images in their documents.
- It allows the authors for adding the effects on their pages.
- It also allows the page authors for including the drop-down menus or rollover buttons.
- This term is also used to create various browser-based action games.
- It is also used to add the ticker on various websites, which needs to refresh their content

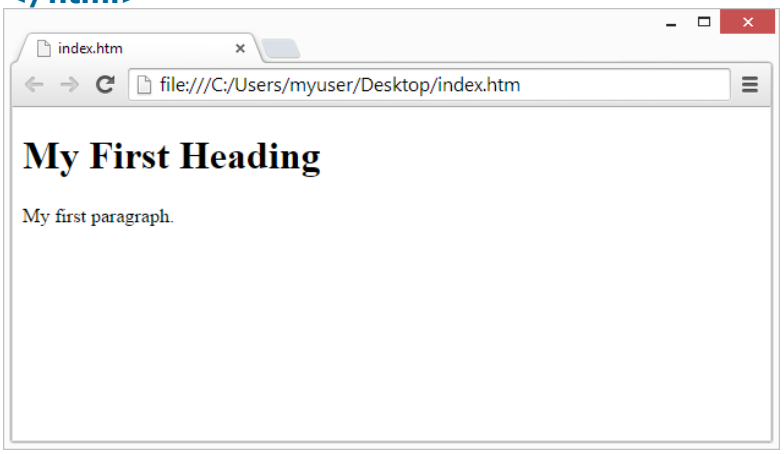
HTML 5

HTML5 is the fifth revision of HTML, a markup language to present and structure web document. Though not officially released, developers have started using HTML5 and creating excellent web applications.

- HTML stands for HyperText Markup Language.
- HTML is used to create web pages and web applications.
- HTML is widely used language on the web.
- We can create a static website by HTML only.
- Technically, HTML is a Markup language rather than a programming language.

Example :

```
<!DOCTYPE>
<html>
<head> <title>Web page title</title>  </head>
<body>
<h1>Write Your First Heading</h1>
<p>Write Your First Paragraph.</p>
</body>
</html>
```



Example Explained :

- The <!DOCTYPE html> declaration defines that this document is an HTML5 document
- The <html> element is the root element of an HTML page
- The <head> element contains meta information about the HTML page
- The <title> element specifies a title for the HTML page (which is shown in the browser's title bar or in the page's tab)
- The <body> element defines the document's body, and is a container for all the visible contents, such as headings, paragraphs, images, hyperlinks, tables, lists, etc.
- The <h1> element defines a large heading
- The element defines a paragraph

What is an HTML Element?

An HTML element is defined by a start tag, some content, and an end tag:

<tagname>Content goes here...</tagname>

The HTML element is everything from the start tag to the end tag:

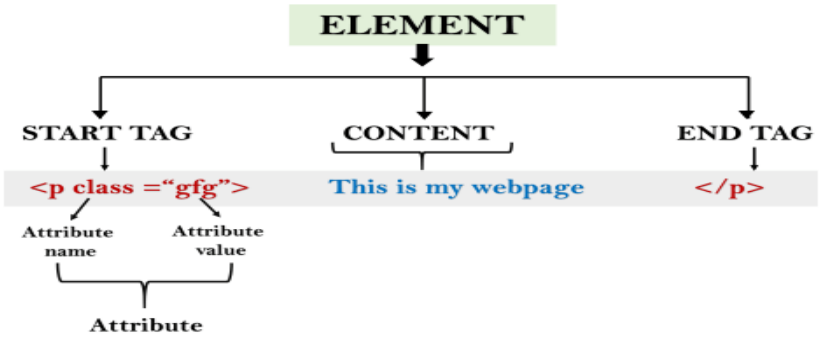
<h1>My First Heading</h1> , My first paragraph.

Building blocks of HTML :

An HTML document consist of its basic building blocks which are:

- **Tags:** An HTML tag surrounds the content and apply meaning to it. It is written between < and > brackets.
- **Attribute:** An attribute in HTML provides extra information about the element, and it is applied within the start tag. An HTML attribute contains two fields: name & value.
- **Elements**: An HTML element is an individual component of an HTML file. In an HTML file, everything written within tags are termed as HTML elements.

Syntax : <tag name attribute_name= " attr_value"> content </ tag name>



HTML Tags

HTML tags are like keywords which defines that how web browser will format and display the content. When a web browser reads an HTML document, browser reads it from top to bottom and left to right. HTML tags are used to create HTML documents and render their properties. Each HTML tags have different properties.

Unclosed HTML Tags :Some HTML tags are not closed, for example br and hr.

 Tag: br stands for break line, it breaks the line of the code.
<hr> Tag: hr stands for Horizontal Rule. This tag is used to put a line across the webpage.

HTML Meta Tags : DOCTYPE, title, link, meta and style

HTML Text Tags : <p>, <h1>, <h2>, <h3>, <h4>, <h5>, <h6>, , , , <cite>, <q>, <code>, <ins>, <del>, <dfn>, <kbd>, <pre>, <samp>, <var> and

HTML Link Tags :<a> and <base>

HTML Image and Object Tags :<img>, <area>, <map>, <param> and <object>

HTML List Tags : , <ol>, <li>, <dl>, <dt> and <dd>

HTML Table Tags : table, tr, td, th, tbody, thead, tfoot, col, colgroup and caption

HTML Form Tags : form, input, textarea, select, option, optgroup, button, label, fieldset and legend

HTML Scripting Tags : script and noscript

Heading Tag

A HTML heading or HTML h tag can be defined as a title or a subtitle which you want to display on the webpage. When you place the text within the heading tags <h1>.....</h1>, it is displayed on the browser in the bold format and size of the text depends on the number of heading.There are six different HTML headings which are defined with the <h1> to <h6> tags, from highest level h1 (main heading) to the least level h6 (least important heading).h1 is the largest heading tag and h6 is the smallest one. So h1 is used for most important heading and h6 is used for least important.

```
<!DOCTYPE html>
<html>
<body>
<h1>Heading no. 1</h1>
<h2>Heading no. 2</h2>
<h3>Heading no. 3</h3>
<h4>Heading no. 4</h4>
<h5>Heading no. 5</h5>
<h6>Heading no. 6</h6>
</body>
</html>
```

Output:

Heading no. 1
Heading no. 2
Heading no. 3
Heading no. 4
Heading no. 5
Heading no. 6

HTML Paragraph

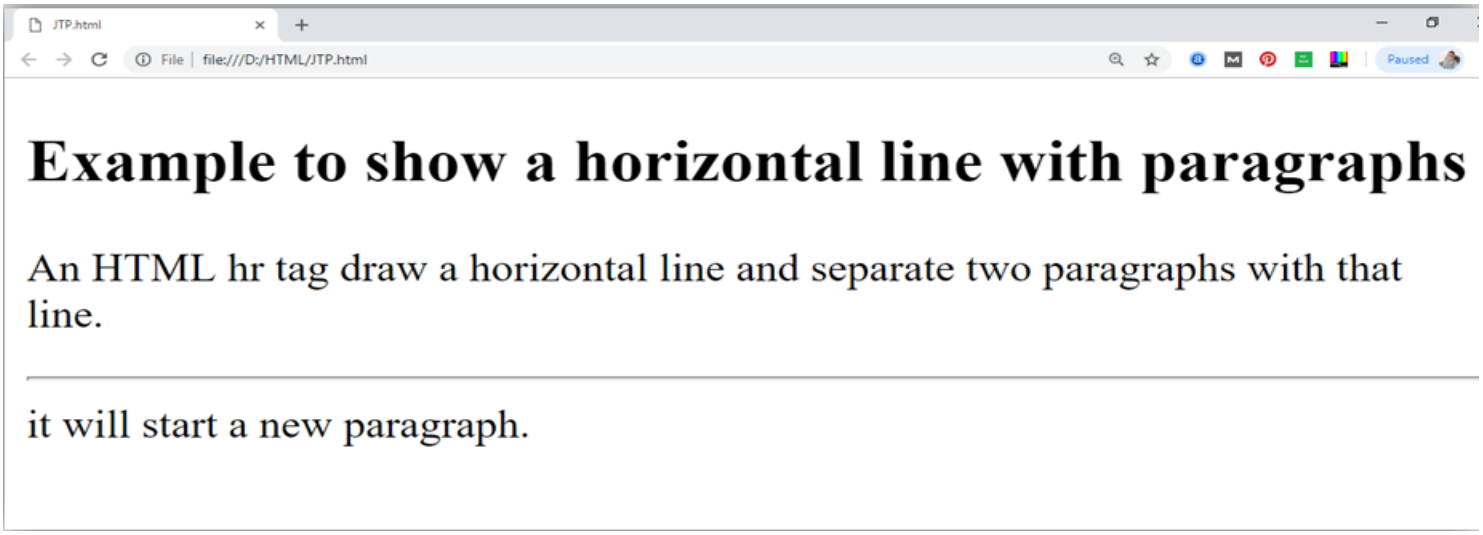
HTML paragraph or HTML p tag is used to define a paragraph in a webpage. An HTML <p> tag indicates starting of new paragraph.

```
<html>
<body>
<p>This is first paragraph.</p>
<p>This is second paragraph.</p>
<p>This is third paragraph.</p>
</body>
</html>
```

HTML Break & Horizontal Line

An HTML
 tag is used for line break and it can be used with paragraph elements. An HTML <hr> tag is used to apply a horizontal line between two statements or two paragraphs. Following is the example which is showing use of <hr> tag with paragraph.

```
<!DOCTYPE html>
<html>
 <head> </head>
 <body>  <h2> Example to show a horizontal line with paragraphs</h2>
 <p> An HTML hr tag draw a horizontal line and separate two paragraphs with that line.
  <hr> it will start a new paragraph.   </p>
  </body>
  </html>
```



HTML Underline Tag : The <u> tag in HTML stands for underline and it's used to underline the text enclosed within the <u> tag. This tag is generally used to underline misspelled words. This tag requires a starting as well as ending tag. **<u>** Contents... **</u>**

HTML Bold Tag : HTML tag is used *to display the written text in bold format*. It is strictly a presentational element. If you want to show your text in bold letters and not have real semantic meaning, then put it within ..... tag.The tag adds extra semantic meaning to the HTML document. It is recommended to use strong tag for bold format now.

HTML Italic Tag:

To make text italic in HTML, use the … tag or … tag. Both the tags have the same functioning, but tag is a logical element, which will display the enclosed content in italic font, with added semantics importance. element is physical element, which display the enclosed content in italic font, without any added importance.

HTML Strike Text Tag:

Anything written within <strike>.....</strike> element is displayed with strikethrough. It is a thin line which cross the statement.

1. `<p> <b>`Write Your First Paragraph in bold text.`</b></p>`
2. `<p><strong>`This is an important content`</strong>`, and this is normal content`</p>`
3. `<p> <i>`Write Your First Paragraph in italic text.`</i></p>`
4. `<p><em>`This is an important content`</em>`, which displayed in italic font.`</p>`
5. `<h2>` I want to put a `<mark>` Mark`</mark>` on your face`</h2>`
6. `<p> <u>`Write Your First Paragraph in underlined text.`</u></p>`
7. `<p> <strike>`Write Your First Paragraph with strikethrough`</strike>.</p>`

Output :

1. **Write Your First Paragraph in bold text.**
2. **This is an important content, and this is normal content**
3. *Write Your First Paragraph in italic text.*
4. *This is an important content*, which displayed in italic font.
5. **I want to put a Mark on your face**
6. Write Your First Paragraph in underlined text.
7. ~~Write Your First Paragraph with strikethrough.~~

HTML Superscript & Subscript Tag:

Subscript: <sub> tag defines the subscript text. Subscript text appears half a character below the normal line and is sometimes rendered in a smaller font. Subscript text can be used for chemical formulas, like H2O to be written as H_2O. Ex : Testing _{subscript text}

Superscript: <sup> tag defines the superscript text. Superscript text appears half a character above the normal line and is sometimes rendered in a smaller font. Ex : Testing ^{superscript text}

Output :

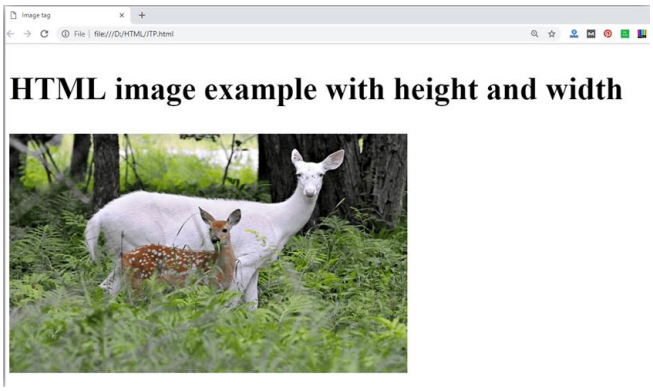
Testing $_{\text{subscript text}}$

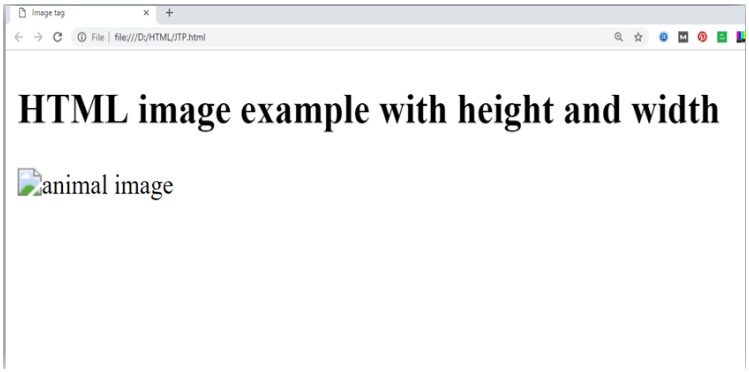
Testing $^{\text{superscript text}}$

HTML IMAGE

HTML img tag is used to display image on the web page. HTML img tag is an empty tag that contains attributes only, closing tags are not used in HTML image element.

```
<h2>HTML Image Example</h2>
<img src="good_morning.jpg" alt="Good Morning Friends"/>
<img src="animal.jpg" height="180" width="300" alt="animal image">
<img src="animal.png" height="180" width="300" alt="animal image">
```





Attributes of HTML img tag

The src and alt are important attributes of HTML img tag. All attributes of HTML image tag are given below.

1) src : It is a necessary attribute that describes the source or path of the image. It instructs the browser where to look for the image on the server.The location of image may be on the same directory or another server.

2) alt : The alt attribute defines an alternate text for the image, if it can't be displayed. The value of the alt attribute describe the image in words. The alt attribute is considered good for SEO prospective.

3) width : It is an optional attribute which is used to specify the width to display the image. It is not recommended now. You should apply CSS in place of width attribute.

4) height : The HTML height attribute also supports iframe, image and object elements. It is not recommended now. We should apply CSS in place of height attribute.

HTML Font Tag and It's attributes:

HTML <font> tag (Not Supported in HTML5)

HTML <font> tag is used to define the font style for the text contained within it. It defines the font size, color, and face or the text in an HTML document.

```
<font size=" " color=" " face=" "> Content....</font>
```

Attribute

Tag-specific attribute

Attribute	Value	Description
color	rgb(X,X,X) #xxxxx color_name	It specifies the color of the content. (Not Supported in HTML5)
face	font_family	It specifies the typeface of the content. (Not Supported in HTML5)
size	number	It specifies the size of the content. (Not Supported in HTML5)

```
<html>
    <head> <title>Font Color</title>
        <style>
            body {
                font-size:40px;
                font-weight:bold;
                text-align:center;
                  }
        </style>
    </head>
    <body>
        <font color = "#009900">GeeksforGeeks</font><br />
        <font color = "green">GeeksforGeeks</font>
    </body>

</html>
```

HTML Anchor

The **HTML anchor tag** defines *a hyperlink that links one page to another page*. It can create hyperlink to other web page as well as files, location, or any URL. The "href" attribute is the most important attribute of the HTML a tag. and which links to destination page or URL.

href attribute of HTML anchor tag : The href attribute is used to define the address of the file to be linked.

```
<a href="second.html">Click for Second Page</a>
<a href="https://www.javatpoint.com/" target="_blank"> this-link </a>
```

- The **target** attribute can only use with href attribute in anchor tag.
- If we will not use target attribute then link will open in same page.

Appearance of HTML anchor tag :
An unvisited link is displayed underlined and blue.
A visited link displayed underlined and purple.
An active link is underlined and red.

HTML Links - HTML Internal Link : HTML internal link is linked within the same web page. This link can be an absolute path or relative path.HTML internal link name is followed by the hash sign(#). You have to assign an id to refer section of your page, which is referred to as an internal link to the same page.

- *Lession.1* link can be referred as *Introduction of Lession.1* automatically.
- *Lession.2* link can be referred as * Introduction of Lession.2 * automatically.

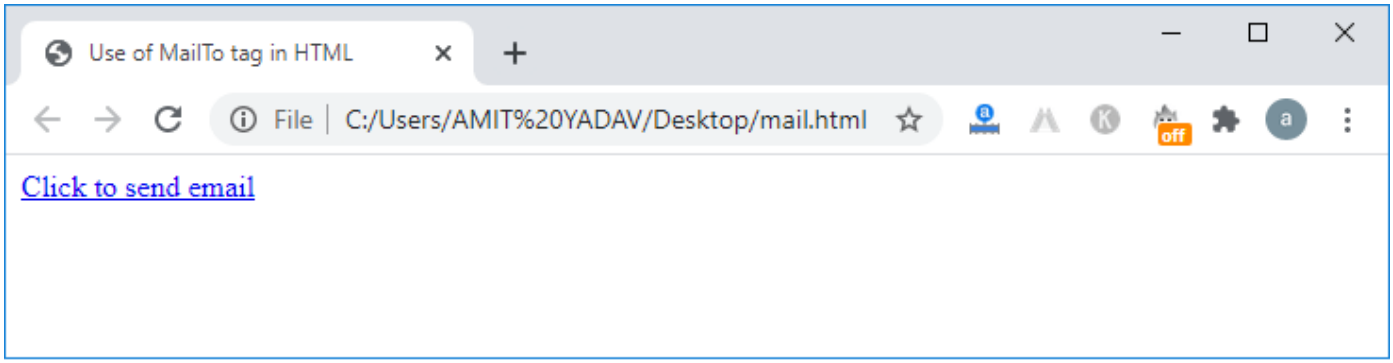
HTML Links - HTML external Link :HTML Link - External HTML Links is linked to external web page. This link is may be absolute path or relative link path.<a> tag is used for anchor name which is referred link to another web page.External link is great future to drive a webpage one to another and useful for surf many webpage in website.

```
<html>
<head></head>
<body>
  <a href="html.php">HTML</a>
  <a href="css.php">CSS</a>
  <a href="javascript.php">Java Script</a>
</body>
</html>
```

HTML Email Tag :

HTML **<a>** tag provides you option to specify an email address to send an email. While using <a> tag as an email tag, you will use **mailto: email address** along with *href* attribute. Following is the syntax of using **mailto** instead of using http. The mail client has predefined parameters such as Cc, Bcc, subject and body content, that are used to send email to one or more recipients.

Send Email



HTML Lists

HTML Lists are used to specify lists of information. All lists may contain one or more list elements. There are three different types of HTML lists:

1. Ordered List or Numbered List (ol)
2. Unordered List or Bulleted List (ul)
3. Description List or Definition List (dl)

1) HTML Ordered List or Numbered List

In the ordered HTML lists, all the list items are marked with numbers by default. It is known as numbered list also. The ordered list starts with <ol> tag and the list items start with <li> tag.

```
<ol>
    <li>Aries</li>  <li>Bingo</li>  <li>Leo</li>  <li>Oracle</li>
</ol>
```

Output :

1. Aries
2. Bingo
3. Leo
4. Oracle

2) HTML Unordered List or Bulleted List

In HTML Unordered list, all the list items are marked with bullets. It is also known as bulleted list also. The Unordered list starts with <ul> tag and list items start with the <li> tag.

```
<ul>
    <li>Aries</li>  <li>Bingo</li>  <li>Leo</li>  <li>Oracle</li>
</ul>
```

Output :

- Aries
- Bingo
- Leo
- Oracle

3) HTML Description List or Definition List

HTML Description list is also a list style which is supported by HTML and XHTML. It is also known as definition list where entries are listed like a dictionary or encyclopedia.

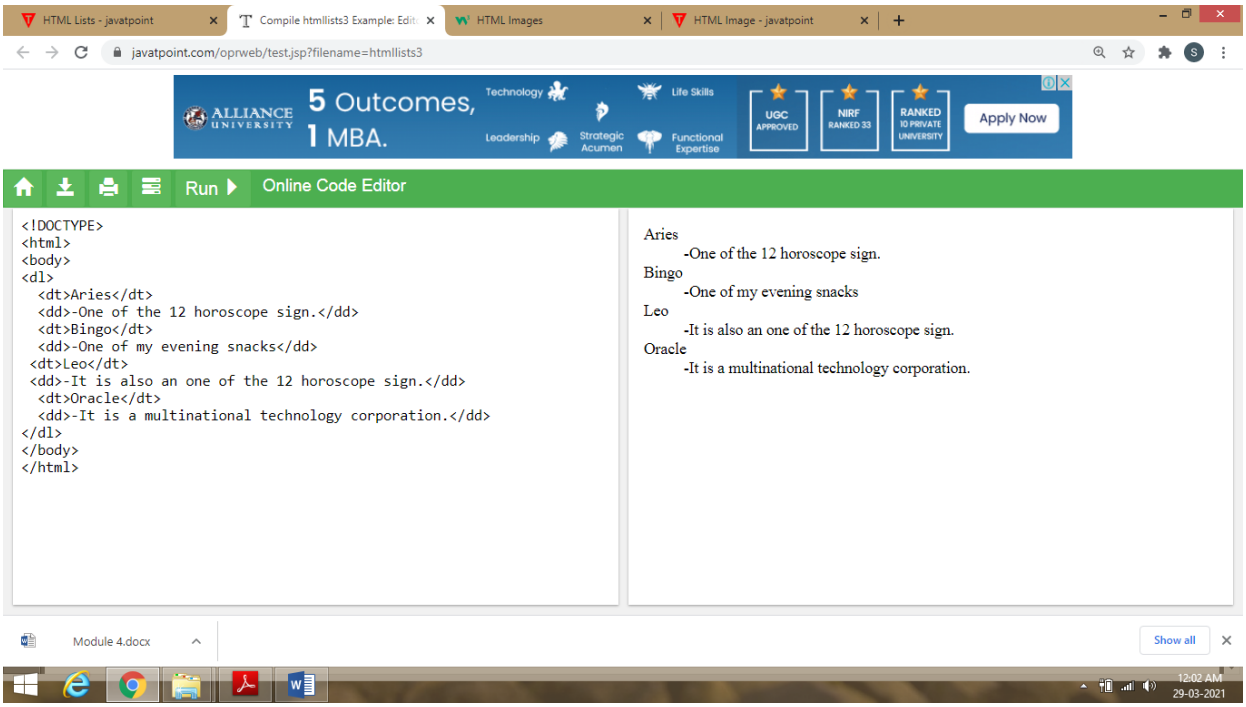
The definition list is very appropriate when you want to present glossary, list of terms or other name-value list.

The HTML definition list contains following three tags:

<dl> tag defines the start of the list.

<dt> tag defines a term.

<dd> tag defines the term definition (description).



HTML media tags: audio and video

HTML audio tag is used to define sounds such as music and other audio clips. Currently there are three supported file format for HTML 5 audio tag.

1. mp3
2. wav
3. ogg

HTML5 supports <video> and <audio> controls. The Flash, Silverlight and similar technologies are used to play the multimedia items.

<audio controls>

<source src="koyal.mp3" type="audio/mpeg"> Your browser does not support the html audio tag.

</audio>

Attributes of HTML Audio Tag

There is given a list of HTML audio tag.

Attribute	Description
controls	It defines the audio controls which is displayed with play/pause buttons.
autoplay	It specifies that the audio will start playing as soon as it is ready.
loop	It specifies that the audio file will start over again, every time when it is completed.
muted	It is used to mute the audio output.
preload	It specifies the author view to upload audio file when the page loads.
src	It specifies the source URL of the audio file.

HTML Vedio tag : HTML 5 supports <video> tag also. The HTML video tag is used for streaming video files such as a movie clip, song clip on the web page.

Currently, there are three video formats supported for HTML video tag:

1. mp4
2. webM
3. ogg

```
<video controls>
<source src="movie.mp4" type="video/mp4"> Your browser does not support the html video tag.
</video>
```

Attributes of HTML Video Tag :

Let's see the list of HTML 5 video tag attributes.

Attribute	Description
controls	It defines the video controls which is displayed with play/pause buttons.
height	It is used to set the height of the video player.
width	It is used to set the width of the video player.
poster	It specifies the image which is displayed on the screen when the video is not played.
autoplay	It specifies that the video will start playing as soon as it is ready.
loop	It specifies that the video file will start over again, every time when it is completed.
muted	It is used to mute the video output.
preload	It specifies the author view to upload video file when the page loads.
src	It specifies the source URL of the video file.

****