WEB DEVELOPMENT

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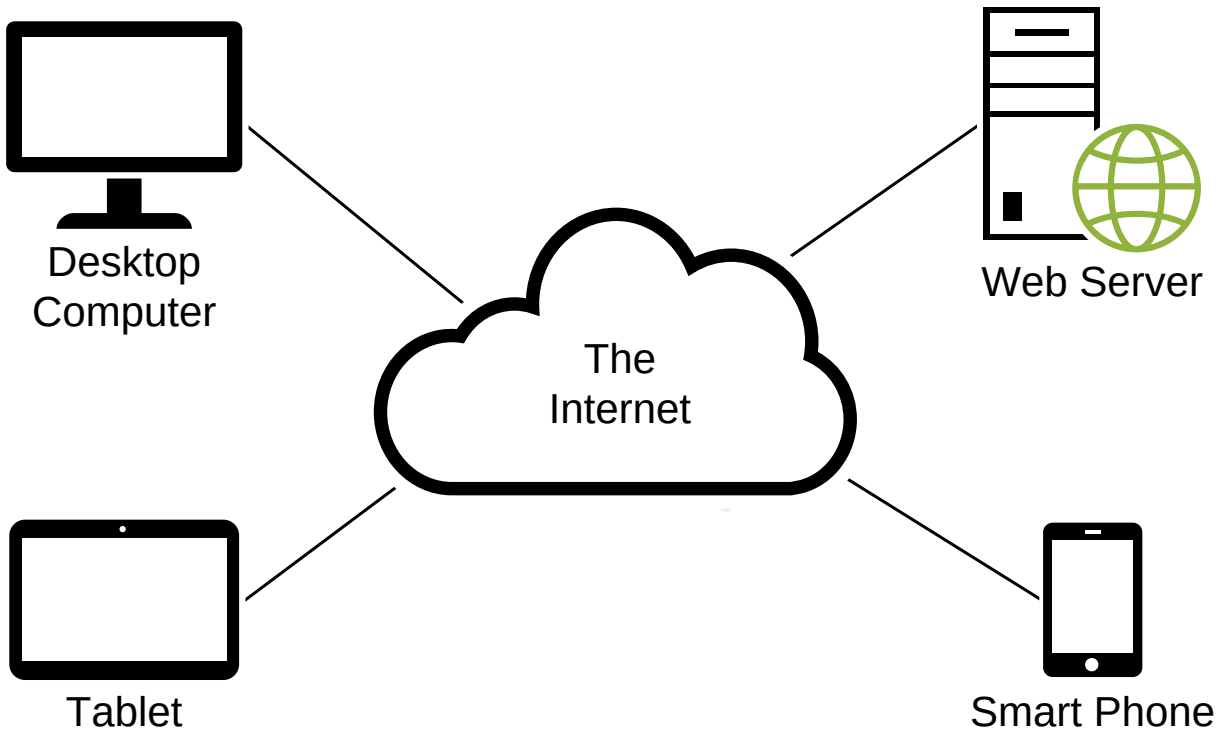
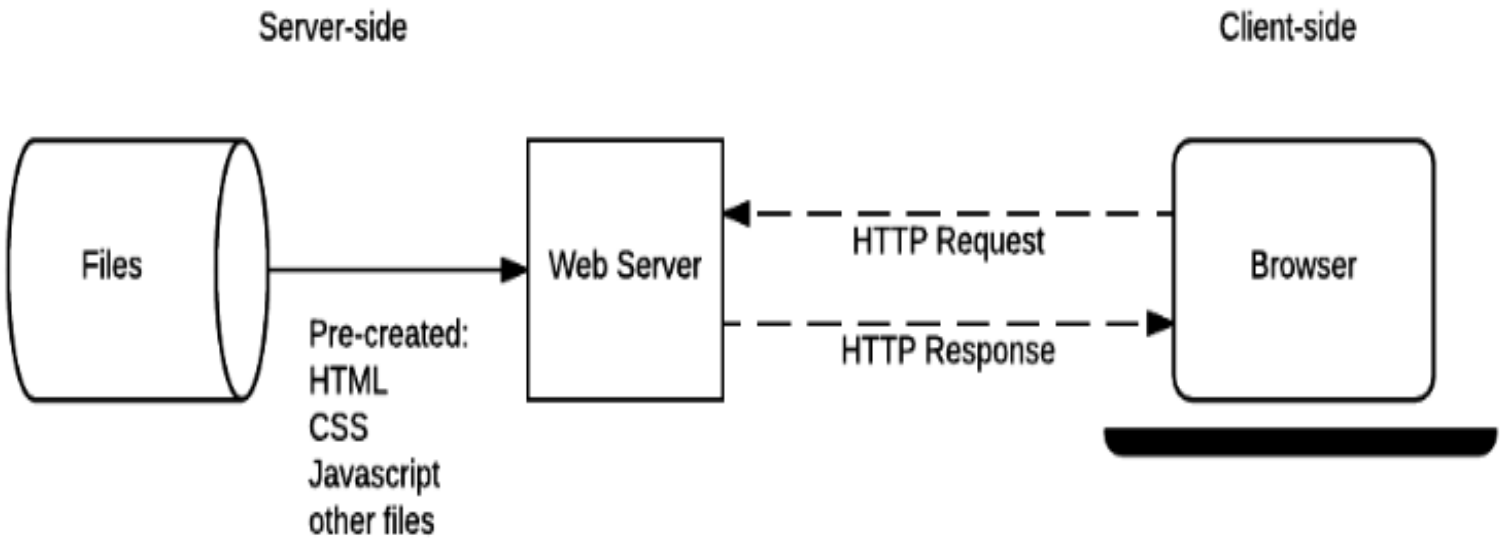
Component of web application



What Does Static Web Page Mean?

- A static Web page is a page that is built using HTML code and features the same presentation and content, regardless of user identity or other factors.
- Static Web pages are easier to code and assemble than dynamic Web pages, which may feature customizable content according to a user's identity or other factors.
- A static web page is sometimes called a flat page.
- Web browser delivers web page exactly as it is

Diagram


Server-side
Client-side
Files
Pre-created:
HTML
CSS
Javascript
other files
Web Server
HTTP Request
HTTP Response
Browser

Advantages of Static Website

Following are the key advantages of a static website:

- Improve security
- Enhance performance
- Independent on system
- Cost-effective
- Easy to set up

Features of Static Web Page

- Following are some features of the static web page that make it viable to use:

- It is not interactive to the user.
- The content of web pages will always remain the same for every visitor until the developer changes it.
- HTML and CSS are fundamental languages to create a static web page
- The short loading time makes visitors feel good
- It provides security to the content present in your web pages. Hackers are unable to attack your content and change it.
- All visitors will see the same content no matter how much time they visit your pages.
- The cost you spend on such a website is less than a dynamic web page.

Getting your Website Online

- If you have completed the initial steps of coding, your website is ready to publish online. Following important things matter while publishing your site on the internet:
- 1) Buy a Domain:

  First, you buy a domain to look more professional. There are various options to get your domain.
- 2) Deploy Your Site:

  There are various cheap and free hosting options available online, for example, GitHub Pages, Netlify, and Amazon13. You can also use free Google web hosting.

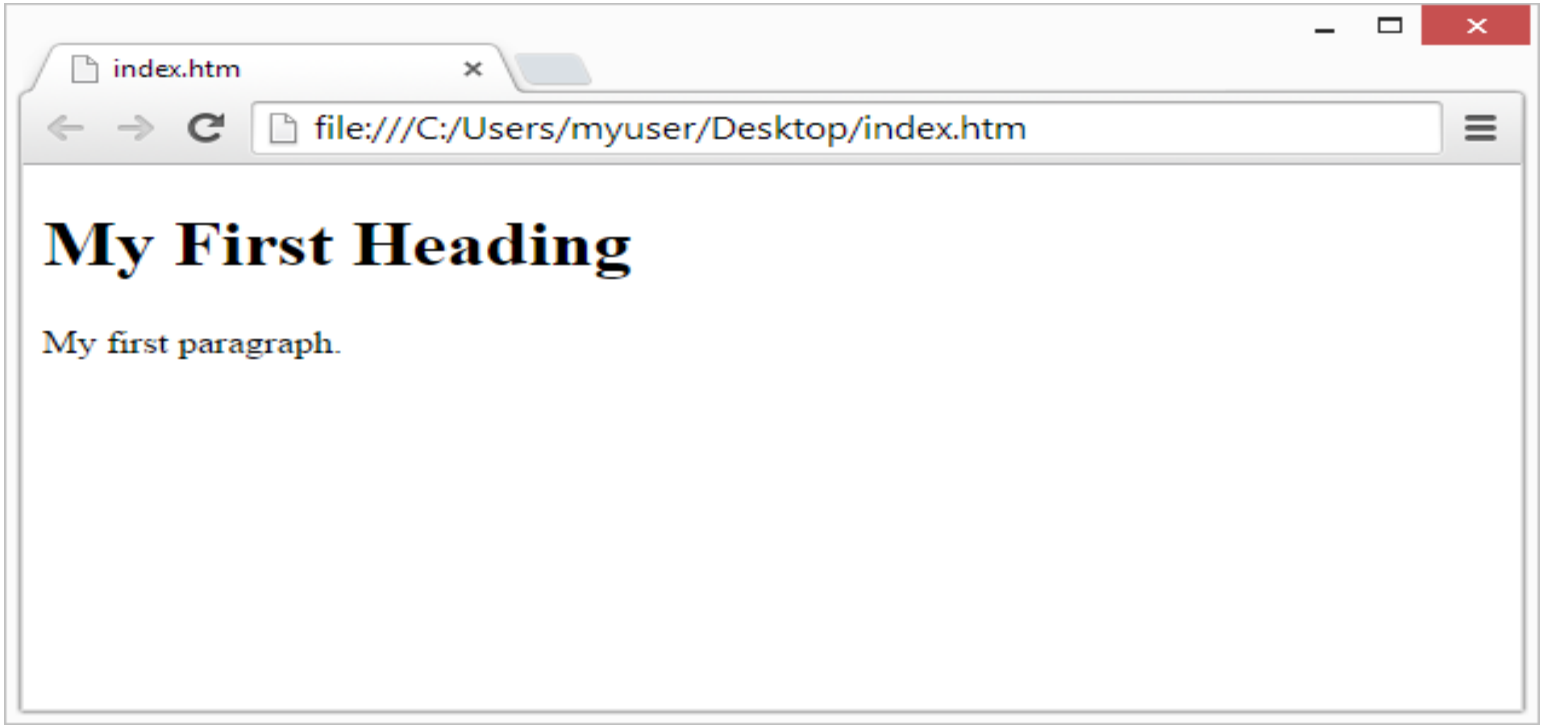
Static Web Page VS Dynamic Web Page

- The word static refers to remaining the same and does not change. The content will remain the same for all the visitors. On the other hand, dynamic refers to anything that is continuously functional.
- The static web page requires HTML and CSS to code the website. The dynamic web needs HTML along with server-side language. Managing events and controlling activities are the responsibility of the server-side language.

- Static pages are simple, while dynamic sites are complex.
- The information changes in static pages are rare, while dynamic pages change frequently.
- Pages take less time to load in static pages. Dynamic pages take more time to load.
- Static sites use HTML, CSS, and JavaScript. Dynamic pages use CGI, AJAX, ASP.NET, and ASP.

Web Browsers

- The purpose of a web browser (Chrome, Edge, Firefox, Safari) is to read HTML documents and display them correctly.
- A browser does not display the HTML tags, but uses them to determine how to display the document:



What is 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.
- **Web Page:** A web page is a document which is commonly written in HTML and translated by a web browser. A web page can be identified by entering an URL. A Web page can be of the static or dynamic type.
- **With the help of HTML only, we can create static web pages**.

- Hence, HTML is a markup language which is used for creating attractive web pages with the help of styling, and which looks in a nice format on a web browser. An HTML document is made of many HTML tags and each HTML tag contains different content.

Features of HTML

1) It is a very **easy and simple language**. It can be easily understood and modified.
2) It is very easy to make an **effective presentation** with HTML because it has a lot of formatting tags.
3) It is a **markup language**, so it provides a flexible way to design web pages along with the text.
4) It facilitates programmers to add a **link** on the web pages (by html anchor tag), so it enhances the interest of browsing of the user.
5) It is **platform-independent** because it can be displayed on any platform like Windows, Linux, and Macintosh, etc.
6) It facilitates the programmer to add **Graphics, Videos, and Sound** to the web pages which makes it more attractive and interactive.
7) HTML is a case-insensitive language, which means we can use tags either in lower-case or upper-case.

HTML Page Structure

```
<html>
<head>
<title>Page title</title>
</head>
<body>
<h1>This is a heading</h1>
<p>This is a paragraph.</p>
<p>This is another paragraph.</p>
</body>
</html>
```

Note: The content inside the <body> section (the white area above) will be displayed in a browser. The content inside the <title> element will be shown in the browser's title bar or in the page's tab.

A Simple HTML Document

- <!DOCTYPE html>
  <html>
  <head>
  <title>Page Title</title>
  </head>
  <body>

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

  </body>
  </html>

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

Example Explained

- **<!DOCTYPE>:** It defines the document type or it instruct the browser about the version of HTML.
- **<html >** :This tag informs the browser that it is an HTML document. Text between html tag describes the web document. It is a container for all other elements of HTML except <!DOCTYPE>
- **<head>:** It should be the first element inside the <html> element, which contains the metadata(information about the document). It must be closed before the body tag opens.
- **<title>:** As its name suggested, it is used to add title of that HTML page which appears at the top of the browser window. It must be placed inside the head tag and should close immediately. (Optional)
- **<body>** : Text between body tag describes the body content of the page that is visible to the end user. This tag contains the main content of the HTML document.
- **<h1>** : Text between <h1> tag describes the first level heading of the webpage.
- **<p>** : Text between <p> tag describes the paragraph of the webpage.

NOTE:

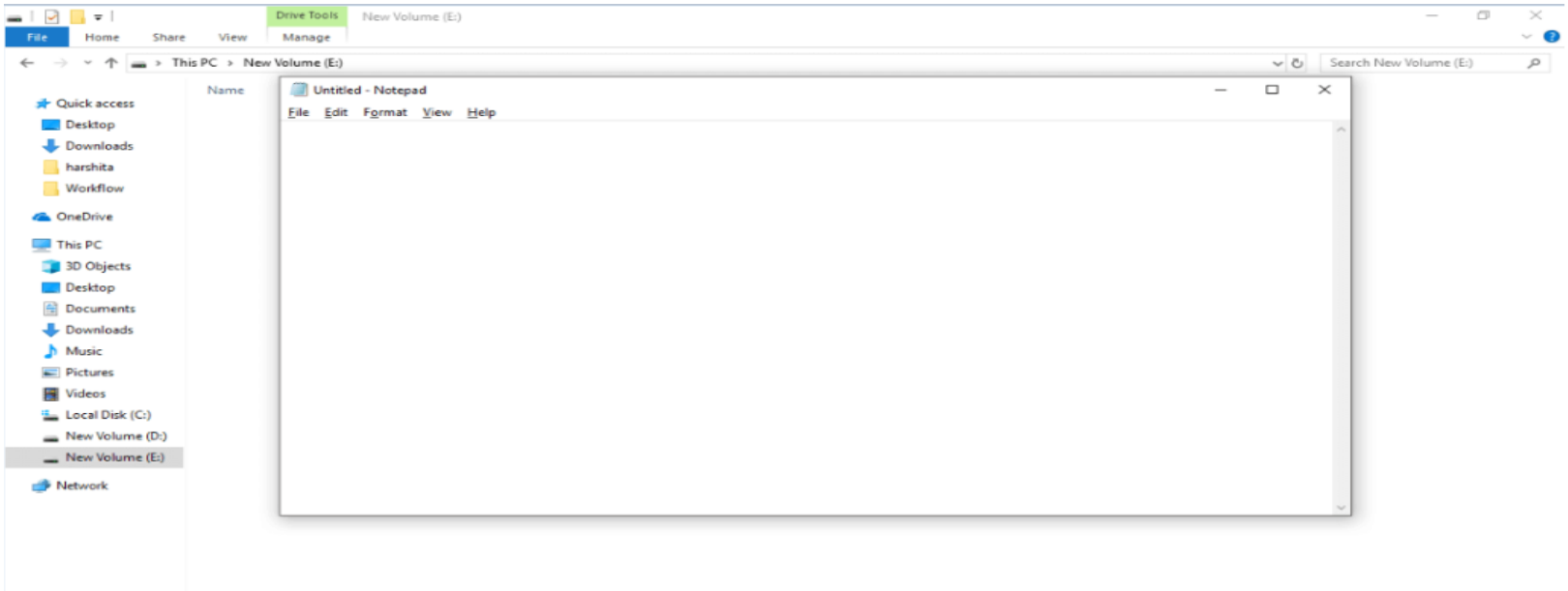
- It is recommended to write all tags in lower-case for consistency, readability, etc.

HTML text Editors

- HTML text Editors
- An HTML file is a text file, so to create an HTML file we can use any text editors.
- Text editors are the programs which allow editing in a written text, hence to create a web page we need to write our code in some text editor.
- There are various types of text editors available which you can directly download, but for a beginner, the best text editor is Notepad (Windows) or TextEdit (Mac).
- After learning the basics, you can easily use other professional text editors which are, **Notepad++, Sublime Text, Vim, etc**.

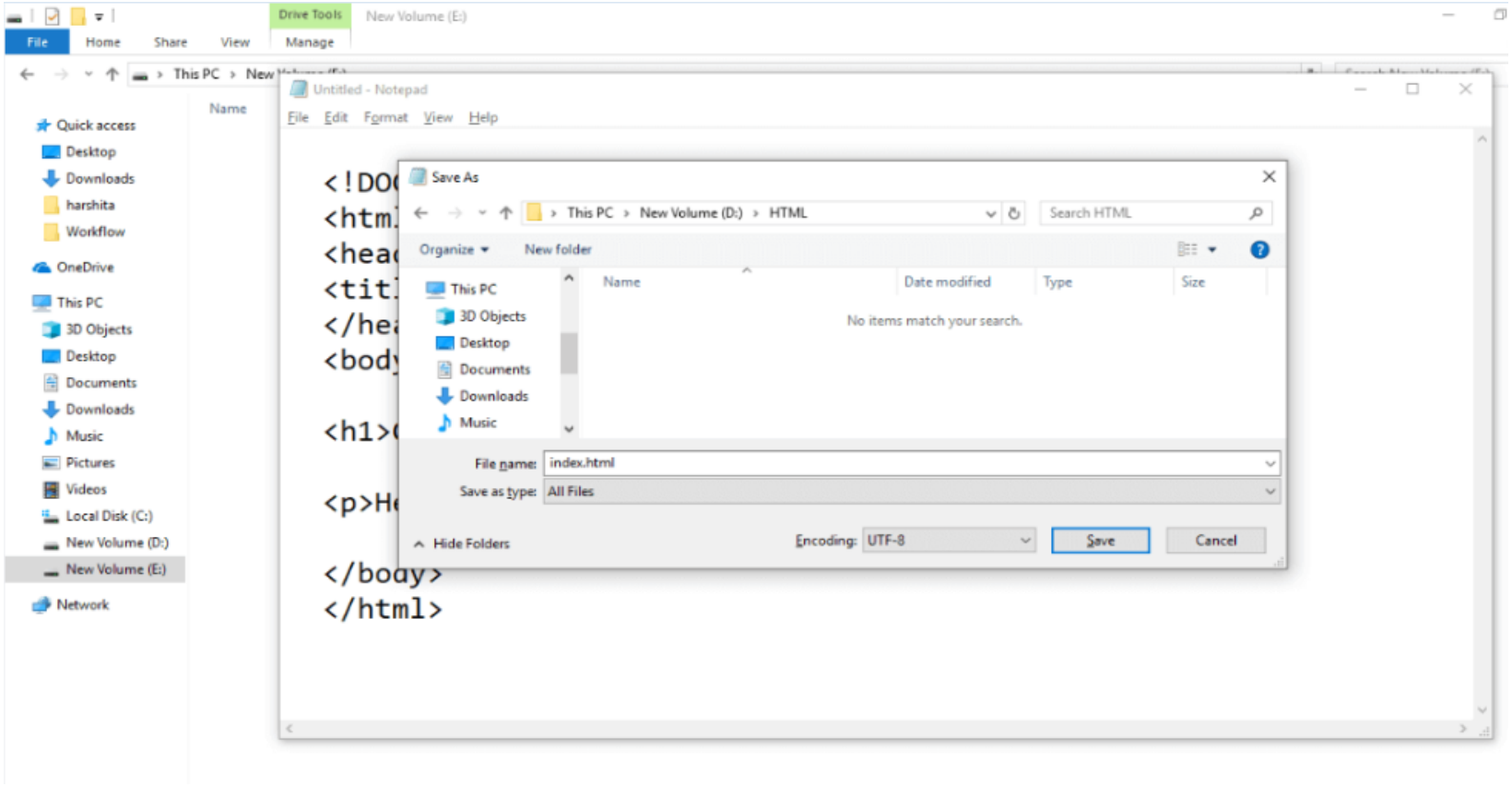
HTML code with Notepad. (Recommended for Beginners)

- Notepad is a simple text editor and suitable for beginners to learn HTML. It is available in all versions of Windows, from where you easily access it.
- **Step 1: Open Notepad (Windows)**

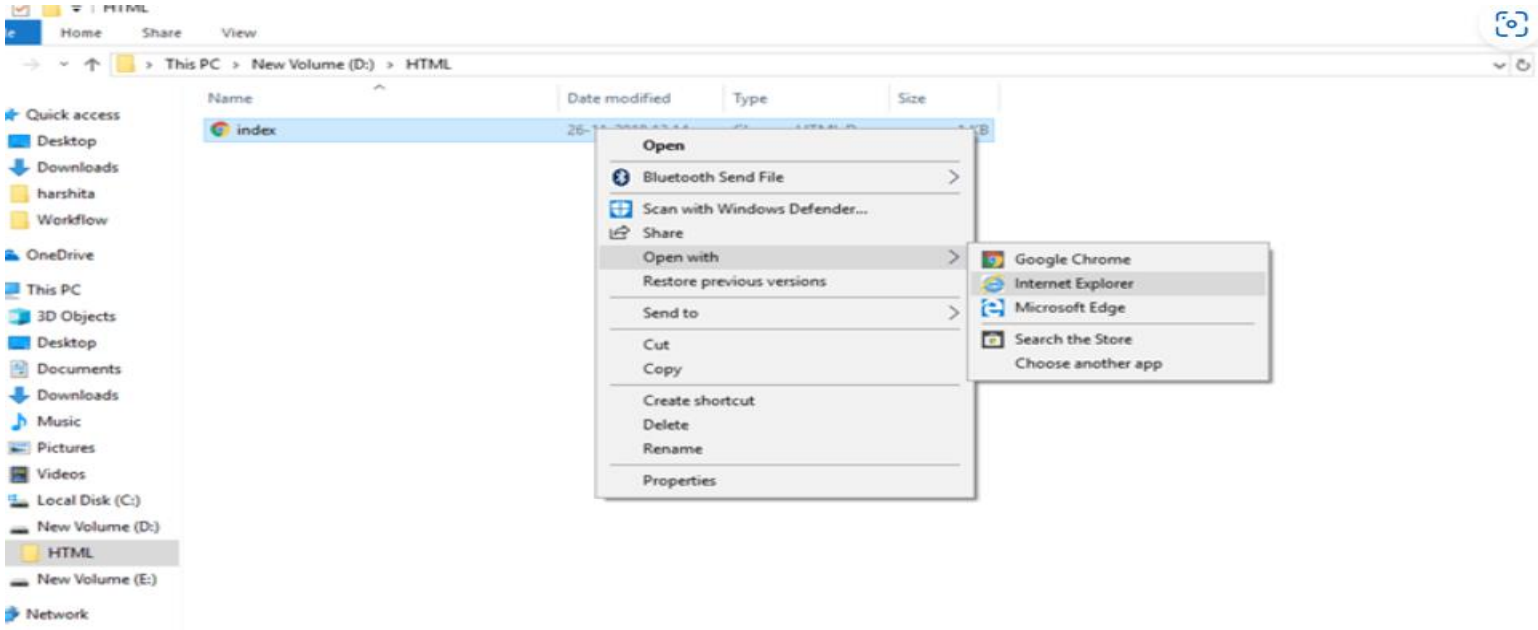


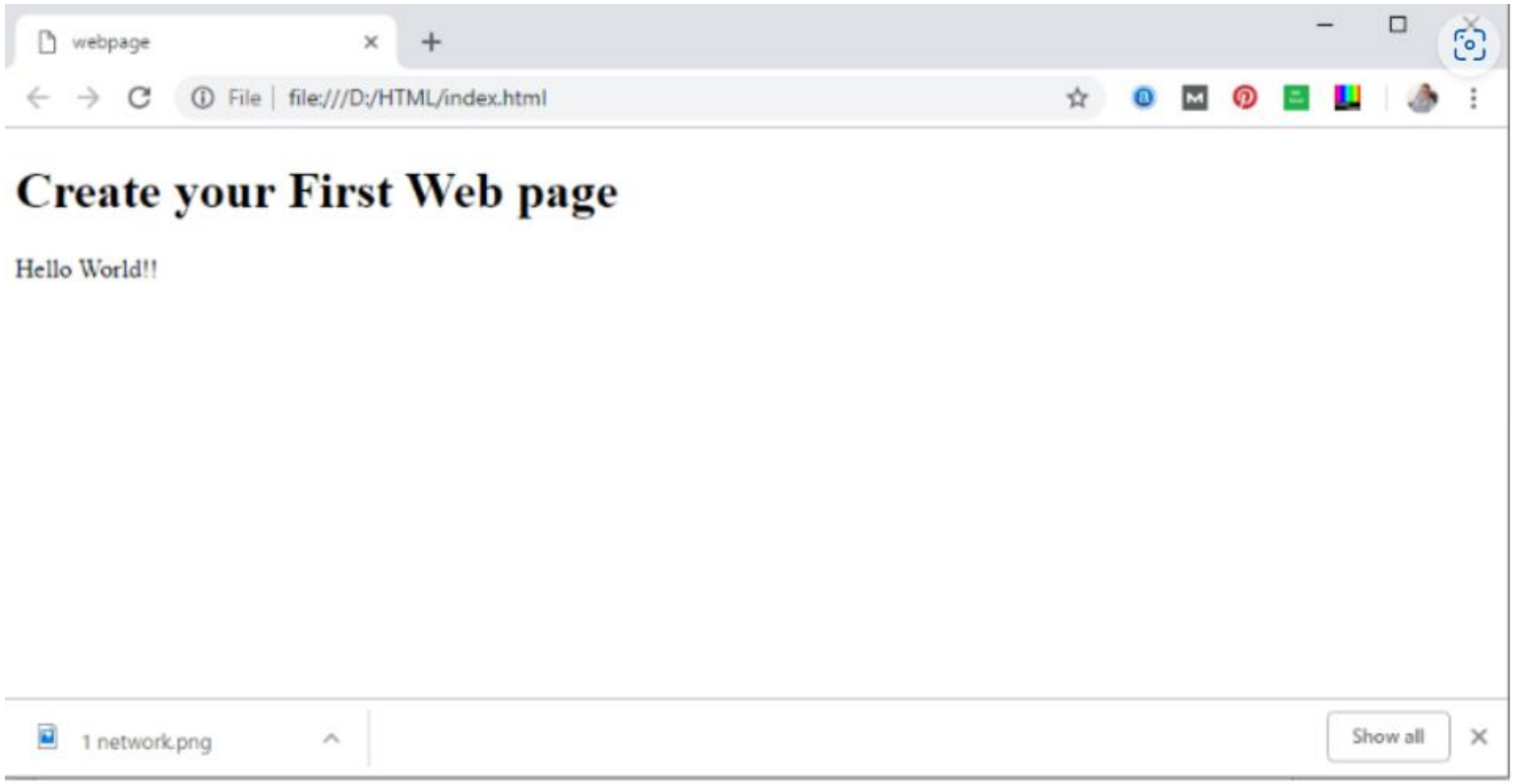
- **Step 2: Write code in HTML**

- **Step 3: Save the HTML file with .htm or .html extension.**



- **Step 4: Open the HTML page in your web browser.**
- To run the HTML page, you need to open the file location, where you have saved the file and then either double-click on file or click on open with option




webpage
File | file:///D:/HTML/index.html
Create your First Web page
Hello World!!
1 network.png
Show all

Building blocks of HTML

- 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.

Syntax

<tag name attribute_name= " attr_value"**>** content **</ tag** name**>**

What is an HTML Element?

- **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.

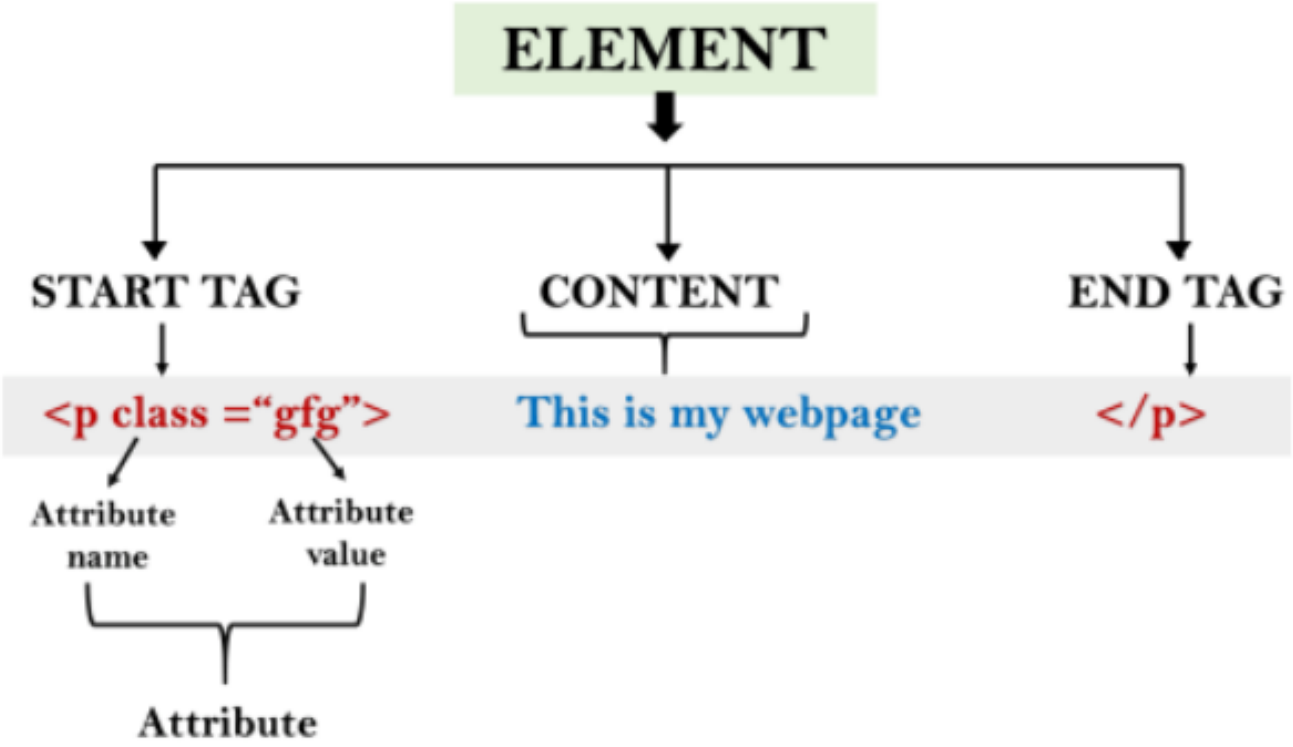
In other word

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.

Start tag	Element content	End tag
<h1>	My First Heading	</h1>
	My first paragraph.	
 	none	*none*

lote: Some HTML elements have no content (like the <br> element). These elements are called empty elements. Empty lements do not have an end tag!


ELEMENT
START TAG
CONTENT
END TAG

This is my webpage

Attribute name
Attribute value
Attribute

```
<!DOCTYPE html>
<html>
 <head>
  <title>The basic building blocks of HTML</title>
 </head>
 <body>
    <h2>The building blocks</h2>
    <p>This is a paragraph tag</p>
    <p style="color: red">The style is attribute of paragraph tag</p>
    <span>The element contains tag, attribute and content</span>
 </body>
</html>
```

The building blocks

This is a paragraph tag

The style is attribute of paragraph tag

The element contains tag, attribute and content

HTML Tags

- HTML tags are like keywords which defines that how web browser will format and display the content. With the help of tags, a web browser can distinguish between an HTML content and a simple content. HTML tags contain three main parts:
- opening tag,
- content
- and closing tag. But some HTML tags are unclosed tags.

- 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.

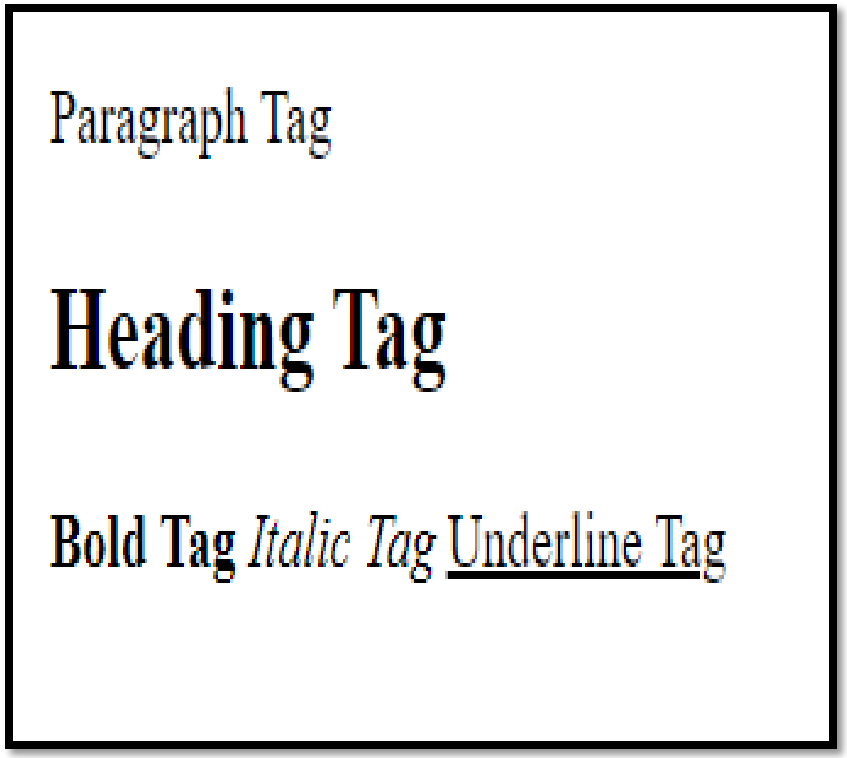
- An HTML file must have some essential tags so that web browser can differentiate between a simple text and HTML text. You can use as many tags you want as per your code requirement.

- All HTML tags must enclosed within < > these brackets.
- Every tag in HTML perform different tasks.
- If you have used an open tag <tag>, then you must use a close tag </tag> (except some tags)

Syntax:

<tag> content </tag>

```
<!DOCTYPE>
<html>
<body>
<p> Paragraph Tag </p>
<h2> Heading Tag </h2>
<b> Bold Tag </b>
<i> Italic Tag </i>
<u> Underline Tag</u>
</body>
</html>
```



- 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>, , , <abbr>, <acronym>, <address>, <bdo>, <blockquote>, <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

Note: we will see examples using these tags next lectures

HTML Attribute

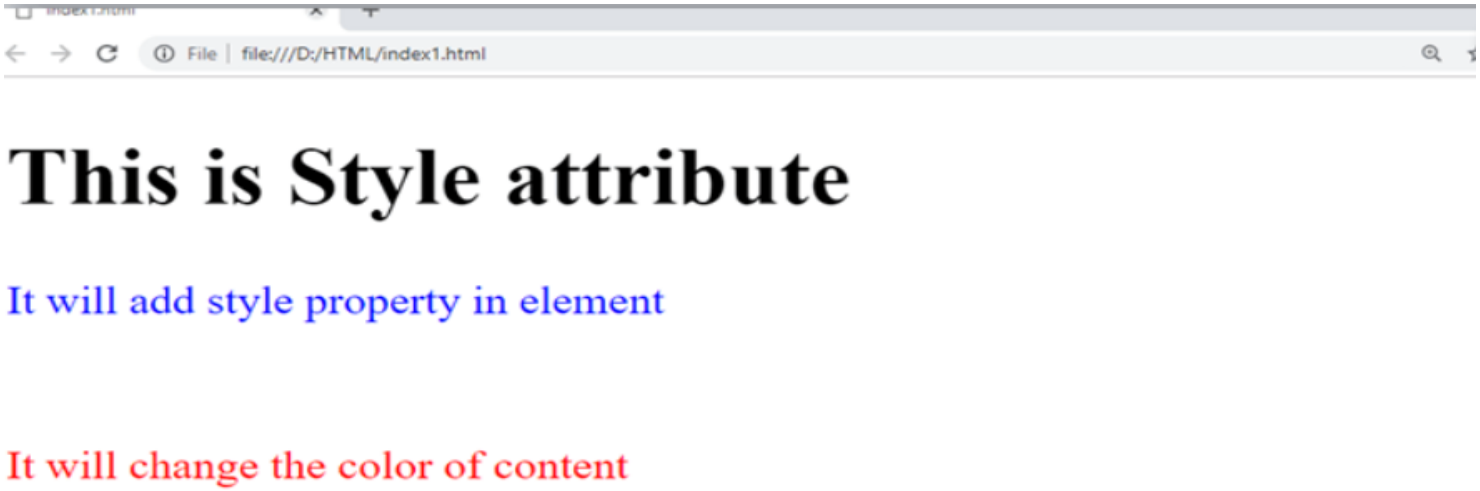
HTML attributes are special words which provide additional information about the elements or attributes are the modifier of the HTML element.

- Each element or tag can have attributes, which defines the behavior of that element.
- Attributes should always be applied with start tag.
- The Attribute should always be applied with its name and value pair.
- You can add multiple attributes in one HTML element, but need to give space between two attributes.

- Syntax
- **<element** attribute_name="value">content**</element>**
- Example:

```
<!DOCTYPE html>
<html>
<head>
</head>
<body>
   <h1> This is Style attribute</h1>
  <p style="height: 50px; color: blue">It will add style property in element</p>
   <p style="color: red">It will change the color of content</p>
</body>
</html>
```

```
<!DOCTYPE html>
<html>
<head>
</head>
<body>
    <h1> This is Style attribute</h1>
   <p style="height: 50px; color: blue">It will add style property in element</p>
    <p style="color: red">It will change the color of content</p>
</body>
</html>
```



Explanation of above example:

<p style="height: 50px; color: blue"**>**It will add style propert y in element**</p>**

- In the above statement, we have used paragraph tags in which we have applied style attribute. This attribute is used for applying CSS property on any HTML element. It provides height to paragraph element of 50px and turns it colour to blue.

<p style="color: red"**>**It will change the color of content**</p>**

- In the above statement we have again used style attribute in paragraph tag, which turns its colour red.

The title attribute in HTML

- **Description:** The title attribute is used as text tooltip in most of the browsers. It display its text when user move the cursor over a link or any text. You can use it with any text or link to show the description about that link or text. In our example, we are taking this with paragraph tag and heading tag.

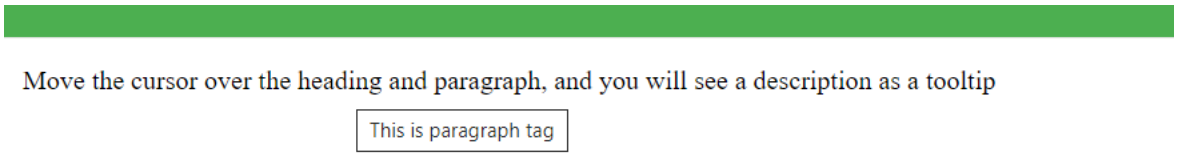
Example

- **With <h1> tag:**

```
<h1 title="This is heading tag">Example of title attribute</h1>
```

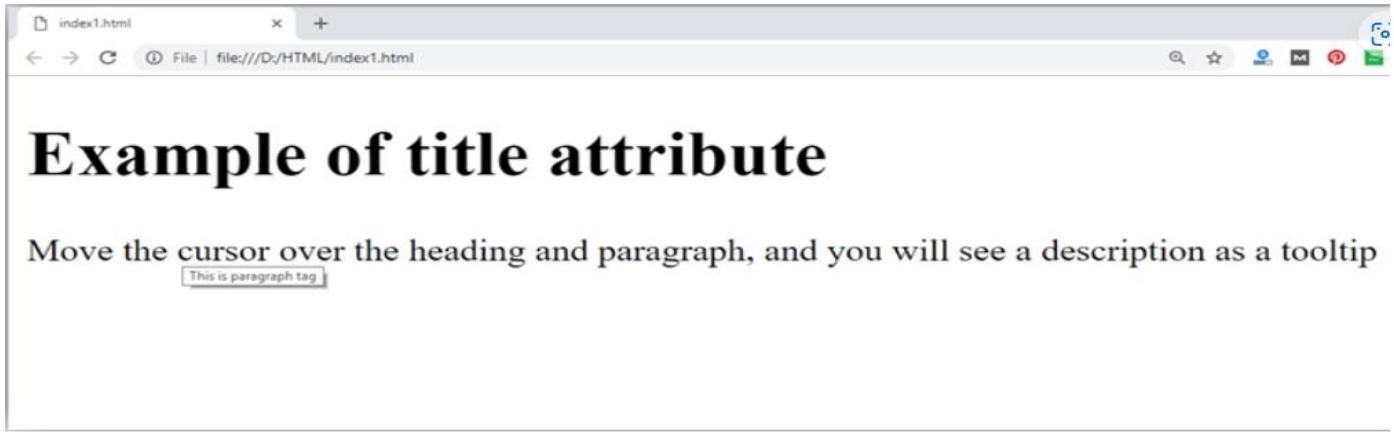
- **With tag:**

Move the cursor over the heading and paragraph, and you will see a description as a tooltip



```
<!DOCTYPE html>
<html>
 <head>
 </head>
<body>

 <h1 title="This is heading tag">Example of title attribute</h1>
 <p title="This is paragraph tag">Move the cursor over the heading and paragraph, and you will see a descrip

</body>
</html>
```

```
<!DOCTYPE html>
<html>
  <head>
 </head>
<body>

  <h1 title="This is heading tag">Example
of title attribute</h1>
  <p title="This is paragraph tag">Move
the cursor over the heading and
paragraph, and you will see a description
as a tooltip</p>


</body>
</html>
```



- The href attribute in HTML
- **Description:** The href attribute is the main attribute of <a> anchor tag. This attribute gives the link address which is specified in that link. **The href attribute provides the hyperlink, and if it is blank, then it will remain in same page**.
- Example
- **With link address:**

```
<a href="https://www.sulicihan.edu.krd">This is a link</a>
```

Example

With link address:

```
<!DOCTYPE html>
<html>
  <head>
 </head>
<body>

  <h1>Display of href attribute</h1>
  <p>Below is the link of anchor tag, click the link and see the next page</p>
  <a href="https://www.sulicihan.edu.krd">This is a link</a>

</body>
</html>
```

Without link address:

```
<!DOCTYPE html>
<html>
  <head>
 </head>
<body>
  <h1>Display of href attribute</h1>
  <a href="">This is a link</a>
</body>
</html>
```

The src Attribute

- The **src** attribute is one of the important and required attribute of **<img>** element. It is source for the image which is required to display on browser. This attribute can contain image in same directory or another directory. The image name or source should be correct else browser will not display the image.
- Example

```
<img src="whitepeacock.jpg" height="400" width="600">
```

```
<!DOCTYPE html>
<html>
  <head>
 </head>
<body>

  <h1>Example of src attribute</h1>
  <p>HTML images can be diplayed with the help of image tag and its attribute src gives the source for that image</p>
  <img src="https://www.nature.com/htmlpages/images/whitepeacock.jpg" height="400" width="600">

</body>
</html>
```

Note: The above example also have height and width attribute, which define the height and width of image on web page.

output

index1.html

File | file:///D:/HTML/index1.html

Example of src attribute

HTML images can be diplayed with the help of image tag and its attribute src gives the sourc for that image

The alt Attribute

- The required alt attribute for the <img> tag specifies an alternate text for an image, if the image for some reason cannot be displayed. This can be due to a slow connection, or an error in the src attribute, or if the user uses a screen reader.
- Example

```
<img src="img_flower.jpg" alt=“red flower">
```

Quotes: single quotes or double quotes?

- we have used attribute with double quotes, but some people might use single quotes in HTML. So use of single quotes with HTML attribute, is also allowed. The following both statements are absolutely fine.

```
<a href="https://www.sulicihan.edu.krd">A link to HTML.</a>
```

```
<a href='https://www.sulicihan.edu.krd'>A link to HTML.</a>
```

- IN HTML5, you can also omit use of quotes around attribute values.

This is Google link

The lang Attribute

- You should always include the lang attribute inside the <html> tag, to declare the language of the Web page. This is meant to assist search engines and browsers.
- The following example specifies English as the language:

```
<!DOCTYPE html>
<html lang="en">
<body>
...
</body>
</html>
```

- Country codes can also be added to the language code in the lang attribute. So, the first two characters define the language of the HTML page, and the last two characters define the country.
- The following example specifies English as the language and United States as the country:

```
<!DOCTYPE html>
<html lang="en-US">
<body>
...
</body>
</html>
```

HTML Elements(review)

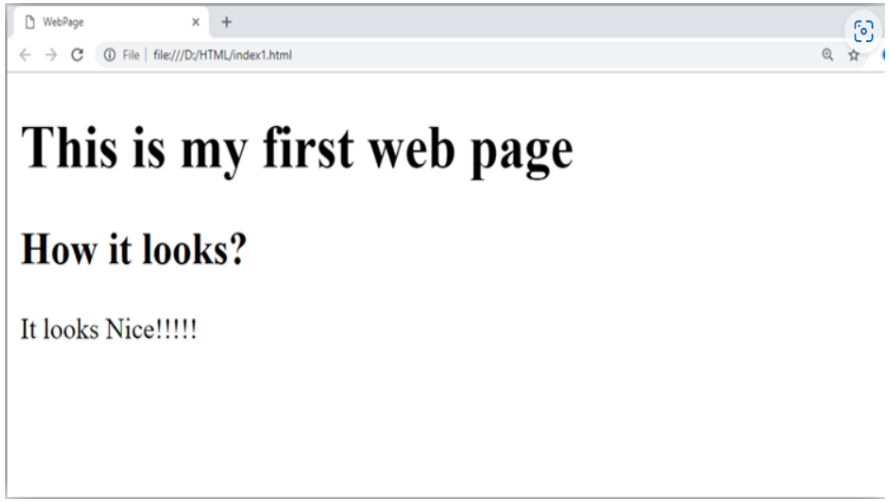
- An HTML file is made of elements. These elements are responsible for creating web pages and define content in that webpage. An element in HTML usually consist of a start tag <tag name>, close tag </tag name> and content inserted between them. **Technically, an element is a collection of start tag, attributes, end tag, content between them**.
- Such as:

** ** Hello Everyone!!! ** **

Note: Some elements does not have end tag and content, these elements are termed as empty elements or self-closing element or void elements.

Example

```
<!DOCTYPE html>
<html>
<head>
    <title>WebPage</title>
</head>
<body>
   <h1>This is my first web page</h1>
    <h2> How it looks?</h2>
     <p>It looks Nice!!!!!</p>
</body>
</html>
```



- All the content written between body elements are visible on web page.
- **Void element:** All the elements in HTML do not require to have start tag and end tag, some elements does not have content and end tag such elements are known as Void elements or empty elements. **These elements are also called as unpaired tag**.
- **Some Void elements are
 (represents a line break) , <hr>(represents a horizontal line), etc.**
- **Nested HTML Elements:** HTML can be nested, which means an element can contain another element.

Block-level and Inline HTML elements

- For the default display and styling purpose in HTML, all the elements are divided into two categories:
- Block-level element
- Inline element

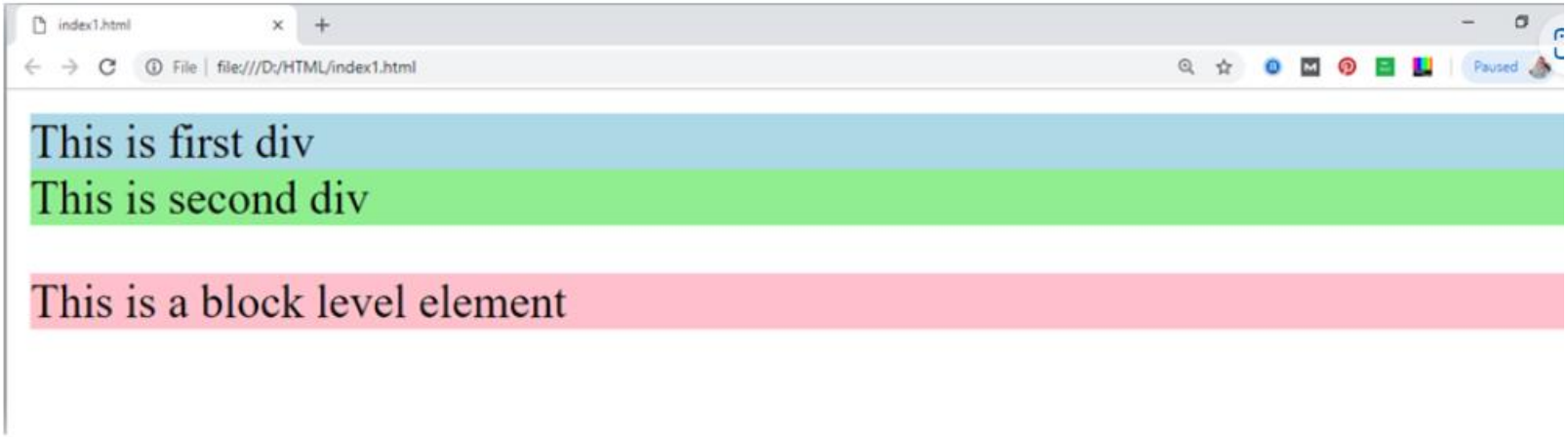
- Block-level element:
- These are the elements, which structure main part of web page, by dividing a page into coherent blocks.
- A block-level element always start with new line and takes the full width of web page, from left to right.
- These elements can contain block-level as well as inline elements.
- Following are the block-level elements in HTML.
- <address>, <article>, <aside>, <blockquote>, <canvas>, <dd>, , <dl>, <dt>, <fieldset>, <figcaption>, <figure>, <footer>, <form>, <h1>-<h6>, <header>, <hr>, <li>, <main>, <nav>, <noscript>, <ol>, <output>, <p>, <pre>, <section>, <table>, <tfoot>, <ul> and <video>.

Example

```
<!DOCTYPE html>
<html>
        <head>
   </head>
<body>
   <div style="background-color: lightblue">This is first div</div>
   <div style="background-color: lightgreen">This is second div</div>
   <p style="background-color: pink">This is a block level element</p>
</body>
</html>
```

```
<!DOCTYPE html>
<html>
        <head>
        </head>
<body>
    <div style="background-color: lightblue">This is first div</div>
    <div style="background-color: lightgreen">This is second div</div>
    <p style="background-color: pink">This is a block level element</p>
</body>
</html>
```

Output



In the above example we have used :

tag, which defines a section in a web page, and takes full width of page.

We have used style attribute which is used to styling the HTML content, and the background color are showing that it's a block level element.

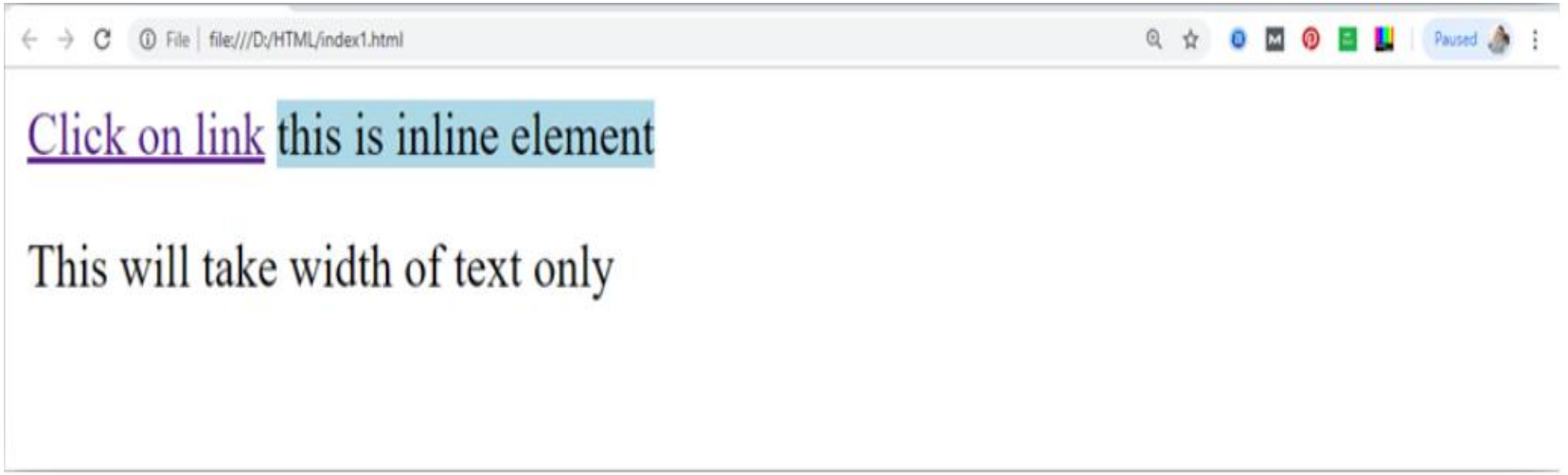
- Inline elements:
- Inline elements are those elements, which differentiate the part of a given text and provide it a particular function.
- These elements does not start with new line and take width as per requirement.

- The Inline elements are mostly used with other elements.
- <a>, <abbr>, <acronym>, <b>, <bdo>, <big>, <br>, <button>, <cite>, <code>, <dfn>, , <i>, <img>, <input>, <kbd>, <label>, <map>, <object>, <q>, <samp>, <script>, <select>, <small>, , , <sub>, <sup>, <textarea>, <time>, <tt>, <var>.

Example

```
<!DOCTYPE html>
<html>
    <head>
        </head>
<body>
    <a href="https://www.google.com">Click on link</a>
    <span style="background-color: lightblue">this is inline element</span>
    <p>This will take width of text only</p>
 </body>
</html>
```

Output


File | file:///D:/HTML/index1.html
Paused
Click on link this is inline element
This will take width of text only

Start tag	Content	End tag	Description
<h1> ..... <h6>	These are headings of HTML	</h1>??.. </h6>	These elements are used to provide the headings of page.
	This is the paragraph		This element is used to display a content in form of paragraph.
	This is div section		This element is used to provide a section in web page.
 			This element is used to provide a line break. (void element)
<hr>			This element is used to provide a horizontal line. (void element)

HTML Formatting

- **HTML Formatting** is a process of formatting text for better look and feel. HTML provides us ability to format text without using CSS. There are many formatting tags in HTML. These tags are used to make text bold, italicized, or underlined. There are almost 14 options available that how text appears in HTML.

In HTML the formatting tags are divided into two categories:

- Physical tag: These tags are used to provide the visual appearance to the text.
- Logical tag: These tags are used to add some logical or semantic value to the text.

- NOTE: There are some physical and logical tags which may give same visual appearance, but they will be different in semantics.

Element name	Description
<b>	This is a physical tag, which is used to bold the text written between it.
	This is a logical tag, which tells the browser that the text is important.
<i>	This is a physical tag which is used to make text italic.
	This is a logical tag which is used to display content in italic.
<mark>	This tag is used to highlight text.
<u>	This tag is used to underline text written between it.
<tt>	This tag is used to appear a text in teletype. (not supported in HTML5)

<strike>	This tag is used to draw a strikethrough on a section of text. (Not supported in HTML5)
<sup>	It displays the content slightly above the normal line.
<sub>	It displays the content slightly below the normal line.
<del>	This tag is used to display the deleted content.
<ins>	This tag displays the content which is added
<big>	This tag is used to increase the font size by one conventional unit.
<small>	This tag is used to decrease the font size by one unit from base font size.

- 1) Bold Text
- HTML and formatting elements
- The HTML element is a physical tag which display text in bold font, without any logical importance. If you write anything within ..... element, is shown in bold letters.

See this example:

** **Write Your First Paragraph in bold text.** **

example

```
<!DOCTYPE>
<html>
<body>
<p> <b>Write Your First Paragraph in bold text.</b></p>
</body>
</html>
```

- The HTML tag is a logical tag, which displays the content in bold font and informs the browser about its logical importance. If you write anything between ???????. , is shown important text.
- See this example:

- ** **This is an important content****, and this is normal content** **

Example

```
<!DOCTYPE html>
<html>
<head>
        <title>formatting elements</title>
</head>
<body>
<h1>Explanation of formatting element</h1>
<p><strong>This is an important content</strong>, and this is normal content</p>
</body>
</html>
```

Output

Explanation of formatting element

This is an important content, and this is normal content

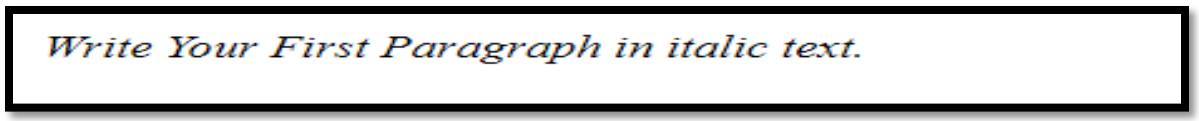
2) Italic Text

- **HTML and formatting elements**
- The HTML element is physical element, which display the enclosed content in italic font, without any added importance. If you write anything within ..... element, is shown in italic letters.

See this example:

** **Write Your First Paragraph in italic text.** **

```
<!DOCTYPE>
<html>
<body>
<p> <i>Write Your First Paragraph in italic text.</i></p>
</body>
</html>
```



- The HTML tag is a logical element, which will display the enclosed content in italic font, with added semantics importance.

- **See this example:**

** **This is an important content****, which displayed in italic font.** **

Example

```
<!DOCTYPE html>
<html>
<head>
        <title>formatting elements</title>
</head>
<body>
<h1>Explanation of italic formatting element</h1>
<p><em>This is an important content</em>, which displayed in italic font.</p>
</body>
</html>
```

Output

Explanation of italic formatting element

This is an important content, which displayed in italic font.

3) HTML Marked formatting

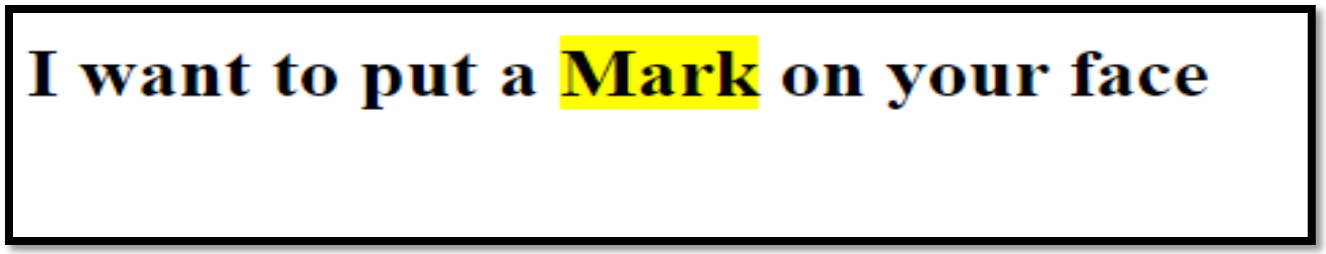
- If you want to mark or highlight a text, you should write the content within <mark>.....</mark>.

- See this example:

<h2> I want to put a **<mark>** Mark**</mark>** on your face**</h2>**

Example

- <!DOCTYPE>
- <html>
- <body>
- <h2> I want to put a <mark> Mark</mark> on your face</h2>
- </body>
- </html>



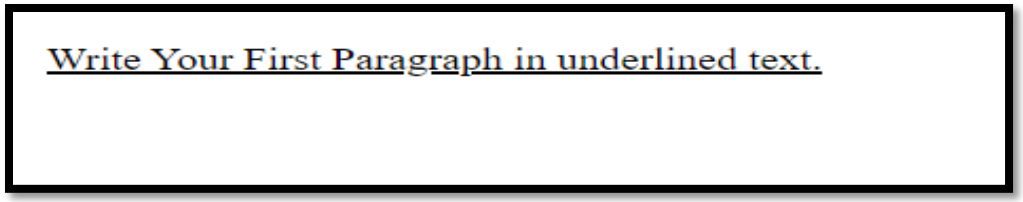
- 4) Underlined Text
- If you write anything within <u>.....</u> element, is shown in underlined text.

See this example:

** <u>**Write Your First Paragraph in underlined text.**</u> **

Example

```
<!DOCTYPE>
<html>
<body>
<p> <u>Write Your First Paragraph in underlined text.</u></p>
</body>
</html>
```



5) Strike Text

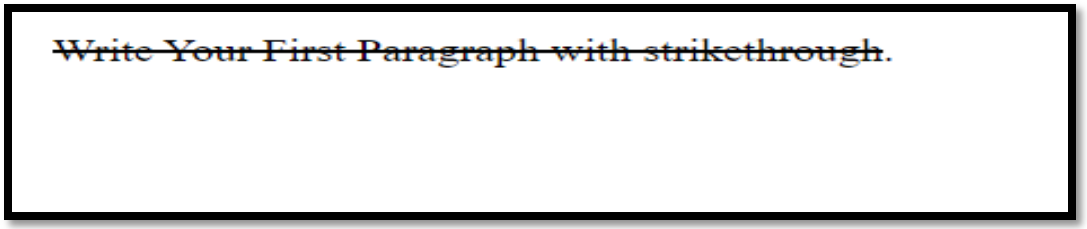
- Anything written within <strike>.....</strike> element is displayed with strikethrough. It is a thin line which cross the statement.

- See this example:

** <strike>**Write Your First Paragraph with strikethrough**</strike>**.** **

Example

```
<!DOCTYPE>
<html>
<body>
<p> <strike>Write Your First Paragraph with strikethrough</strike>.</p>
</body>
</html>
```



6) Monospaced Font

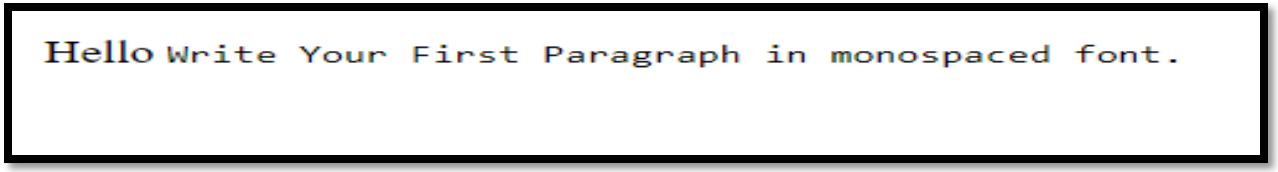
- If you want that each letter has the same width then you should write the content within <tt>.....</tt> element.
- Note: We know that most of the fonts are known as variable-width fonts because different letters have different width. (for example: 'w' is wider than 'i'). Monospaced Font provides similar space among every letter.

- See this example:

** **Hello **<tt>**Write Your First Paragraph in monospaced font.**</tt> **

Example

```
<!DOCTYPE>
<html>
<body>
<p>Hello <tt>Write Your First Paragraph in monospaced font.</tt></p>
</body>
</html>
```



7) Superscript Text

- If you put the content within ^{.....} element, is shown in superscript; means it is displayed half a character's height above the other characters.

See this example:

** **Hello **^{**Write Your First Paragraph in superscript.**} **

Example

```
<!DOCTYPE>
<html>
<body>
<p>Hello <sup>Write Your First Paragraph in superscript.</sup></p>
</body>
</html>
```

Hello Write Your First Paragraph in superscript.

8) Subscript Text

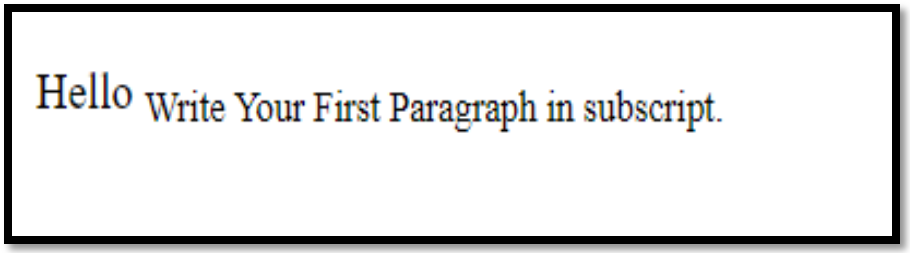
- If you put the content within _{.....} element, is shown in subscript ; means it is displayed half a character's height below the other characters.

See this example:

** **Hello **_{**Write Your First Paragraph in subscript.**} **

Example

```
<!DOCTYPE>
<html>
<body>
<p>Hello <sub>Write Your First Paragraph in subscript.</sub></p>
</body>
</html>
```



9) Deleted Text

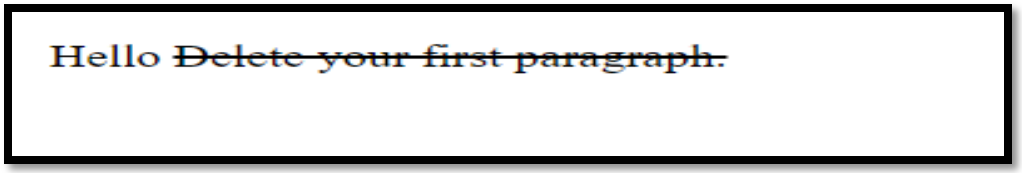
- Anything that puts within ~~.....~~ is displayed as deleted text.

- See this example:

** **Hello **~~**Delete your first paragraph.**~~ **

Example

```
<!DOCTYPE>
<html>
<body>
<p>Hello <del>Delete your first paragraph.</del></p>
</body>
</html>
```



10) Inserted Text

- Anything that puts within <ins>.....</ins> is displayed as inserted text.

See this example:

** ~~**Delete your first paragraph.**~~<ins>**Write an other paragraph.**</ins> **

Example

- <!DOCTYPE>
- <html>
- <body>
- ~~Delete your first paragraph.~~<ins>Write another paragraph.</ins>
- </body>
- </html>

~~Delete your first paragraph.~~ Write another paragraph.

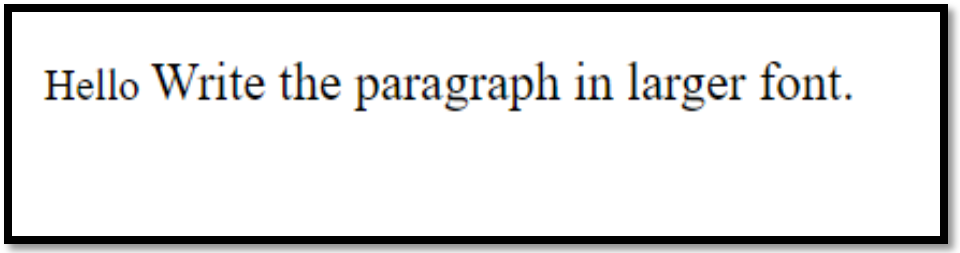
- 11) Larger Text
- If you want to put your font size larger than the rest of the text then put the content within <big>.....</big>. It increase one font size larger than the previous one.

See this example:

** **Hello **<big>**Write the paragraph in larger font.**</big> **

Example

```
<!DOCTYPE>
<html>
<body>
<p>Hello <big>Write the paragraph in larger font.</big></p>
</body>
</html>
```



- 12) Smaller Text
- If you want to put your font size smaller than the rest of the text then put the content within <small>.....</small>tag. It reduces one font size than the previous one.

- See this example:

** **Hello **<small>**Write the paragraph in smaller font.**</small> **

```
<!DOCTYPE>
<html>
<body>
<p>Hello <small>Write the paragraph in smaller font.</small></p>
</body>
</html>
```

Hello Write the paragraph in smaller font.

HTML Heading

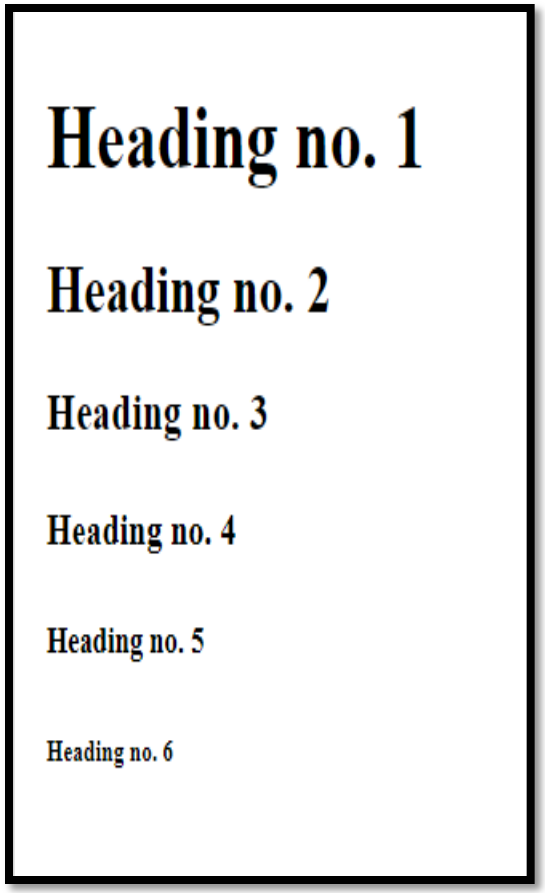
- A HTML heading or HTML h tag can be defined as a title or a subtitle which you want to display on the webpage. When you place the text within the heading tags <h1>.....</h1>, it is displayed on the browser in the bold format and size of the text depends on the number of heading.
- There are six different 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.

- **Headings in HTML helps the search engine to understand and index the structure of web page.**

- Note: The main keyword of the whole content of a webpage should be display by h1 heading tag.

Example

```
<!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>
```

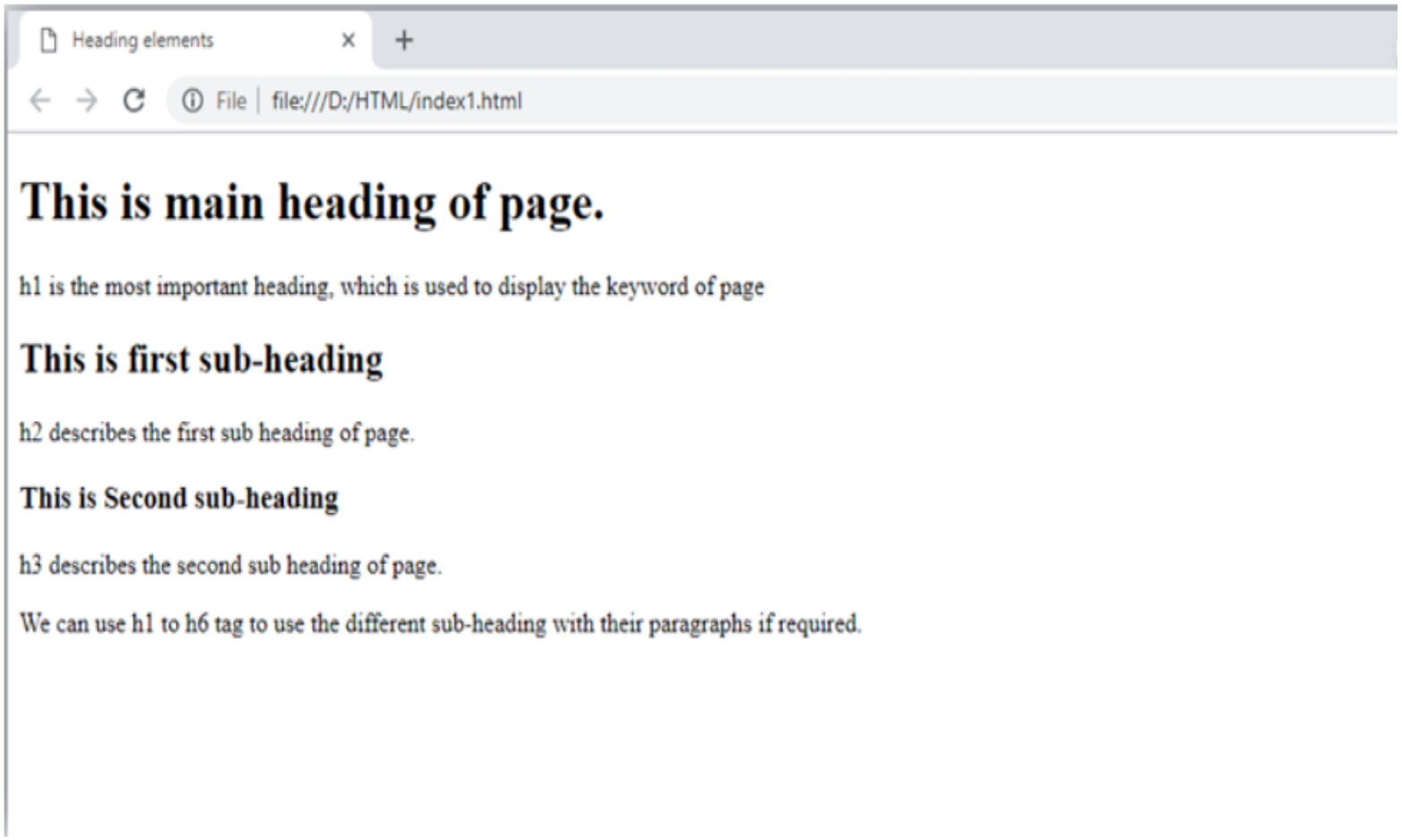


Note: Heading elements (h1....h6) should be used for headings only. They should not be used just to make text bold or big.

HTML headings can also be used with nested elements. Following are different codes to display the way to use heading elements.

Example

```
<!DOCTYPE html>
<html>
 <head>
   <title>Heading elements</title>
 </head>
 <body>
    <h1>This is main heading of page. </h1>
     <p>h1 is the most important heading, which is used to display the keyword of p
age </p>
    <h2>This is first sub-heading</h2>
     <p>h2 describes the first sub heading of page. </p>
    <h3>This is Second sub-heading</h3>
     <p>h3 describes the second sub heading of page.</p>
     <p>We can use h1 to h6 tag to use the different sub-
heading with their paragraphs if
                required.
            </p>
  </body>
</html>
```


Heading elements
File | file:///D:/HTML/index1.html
This is main heading of page.
h1 is the most important heading, which is used to display the keyword of page
This is first sub-heading
h2 describes the first sub heading of page.
This is Second sub-heading
h3 describes the second sub heading of page.
We can use h1 to h6 tag to use the different sub-heading with their paragraphs if required.

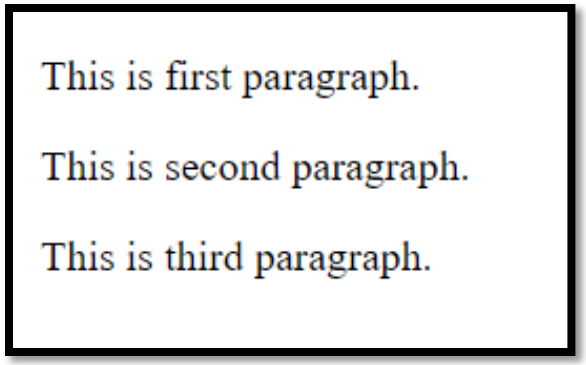
HTML Paragraph

- HTML paragraph or HTML p tag is used to define a paragraph in a webpage. Let's take a simple example to see how it work. It is a notable point that a browser itself add an empty line before and after a paragraph. An HTML <p> tag indicates starting of new paragraph.

- Note: If we are using various <p> tags in one HTML file then browser automatically adds a single blank line between the two paragraphs.

Example

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

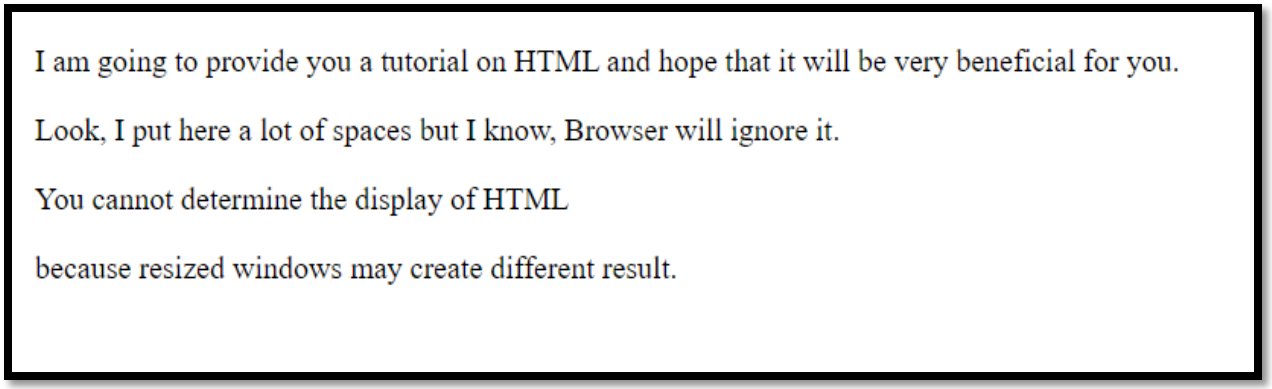


Space inside HTML Paragraph

- If you put a lot of spaces inside the HTML p tag, browser removes extra spaces and extra line while displaying the page. The browser counts number of spaces and lines as a single one.

Example

```
<!DOCTYPE html>
<html>
<body>
<p>
I am
going to provide
you a tutorial on HTML
and hope that it will
be very beneficial for you.
</p>
<p>
Look, I put here a lot
of spaces                but          I know, Browser will ignore it.
</p>
<p>
You cannot determine the display of HTML</p>
<p>because resized windows may create different result.
</p>
</body>
</html>
```



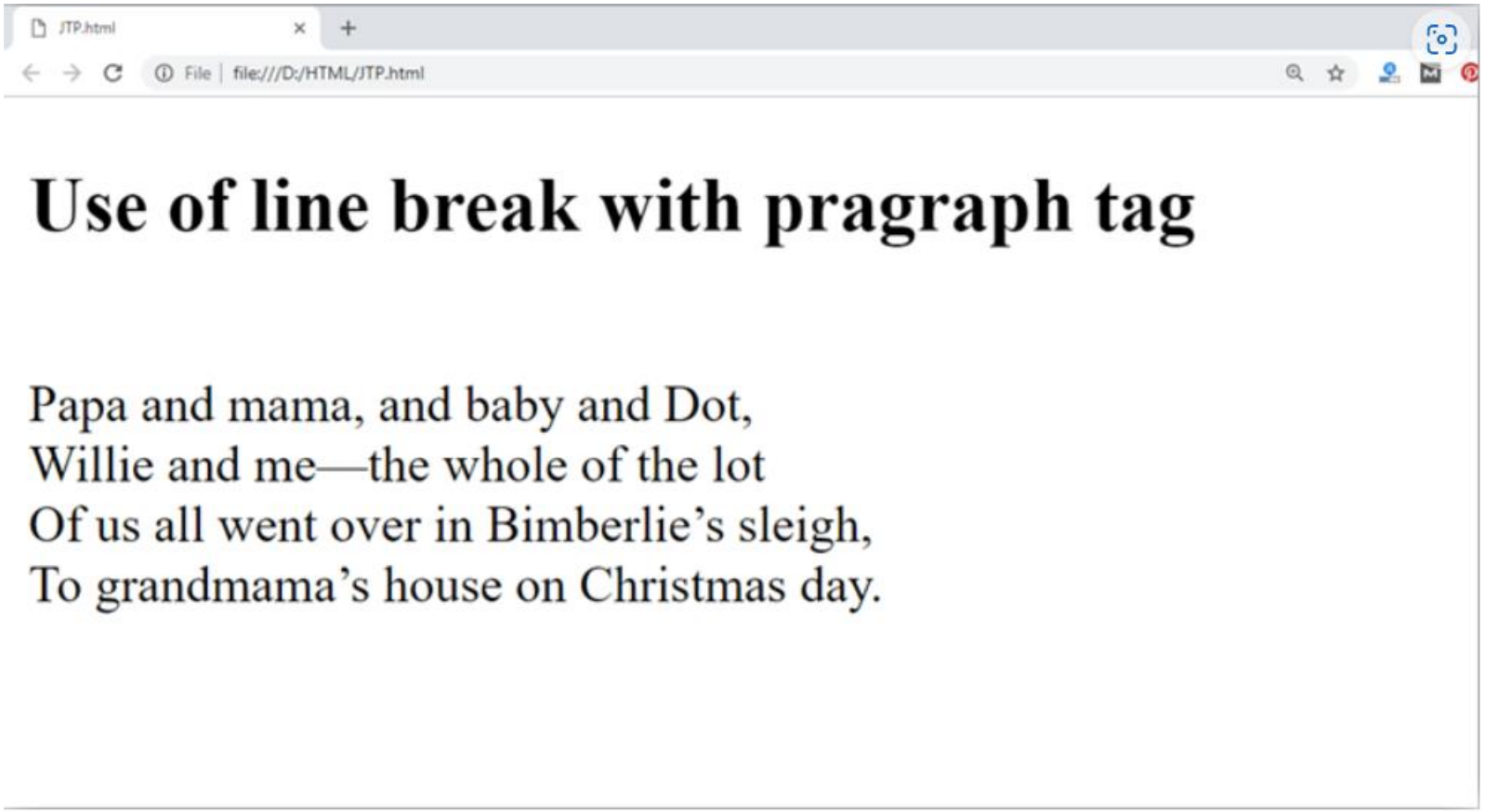
As you can see, all the extra lines and unnecessary spaces are removed by the browser.

How to Use <br> and <hr> tag with paragraph?

- An HTML <br> tag is used for line break and it can be used with paragraph elements. Following is the example to show how to use <br> with <p> element.

Example

```
<!DOCTYPE html>
<html>
    <head>
          </head>
  <body>
     <h2> Use of line break with pragraph tag</h2>
        <p><br>Papa and mama, and baby and Dot,
          <br>Willie and me-the whole of the lot
            <br>Of us all went over in Bimberlie's sleigh,
              <br>To grandmama's house on Christmas day.
        </p>
   </body>
</html>
```

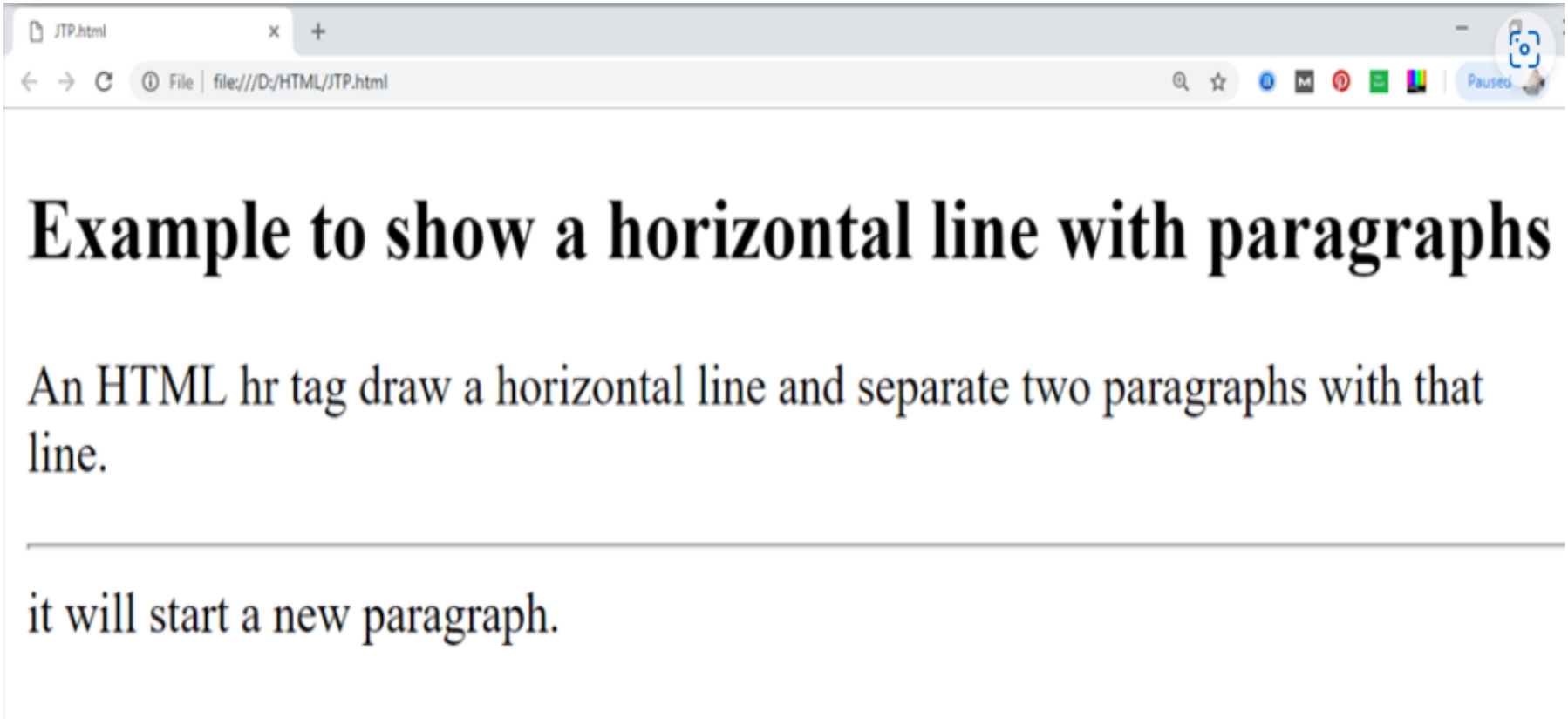

JTP.html
File | file:///D:/HTML/JTP.html
Use of line break with pragraph tag
Papa and mama, and baby and Dot,
Willie and me—the whole of the lot
Of us all went over in Bimberlie's sleigh,
To grandmama's house on Christmas day.

- 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.

Example

```
<!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>
```

Output


JTP.html
File | file:///D:/HTML/JTP.html
Example to show a horizontal line with paragraphs
An HTML hr tag draw a horizontal line and separate two paragraphs with that line.
it will start a new paragraph.

HTML Phrase tag

The HTML phrase tags are special purpose tags, which defines the structural meaning of a block of text or semantics of text. Following is the list of phrase tags, some of which we have already discussed in HTML formatting.

Abbreviation tag : <abbr>

Acronym tag: <acronym> (not supported in HTML5)

Marked tag: <mark>

Strong tag:

Emphasized tag :

Definition tag: <dfn>

Quoting tag: <blockquote>

Short quote tag : <q>

Code tag: <code>

Keyboard tag: <kbd>

Address tag: <address>

1. Text Abbreviation tag

- This tag is used to abbreviate a text. To abbreviate a text, write text between <abbr> and </abbr> tag.

** **An **<abbr** title = "Hypertext Markup language"**>**HTML **</abbr>**langu
age is used to create web pages. ** **

Example

```
<!DOCTYPE html>
<html>
 <head>
          </head>
  <body>
     <h2> Hypertext Markup language </h2>
      <p>An <abbr title = "Hypertext Markup language">HTML </abbr>language is used to create web pages.
     </p>
  </body>
</html>
```

Output

JTP.html
File | file:///D:/HTML/JTP.html
Hypertext Markup language
An HTML language is used to create web pages.

2. Marked tag:

- The content written between <mark> and </mark> tag will show as yellow mark on browser. This tag is used to highlight a particular text.

** **This tag will **<mark>**highlight**</mark>** the text.** **

Example

```
<!DOCTYPE html>
<html>
 <head>
          </head>
  <body>
    <h2>Example of mark tag</h2>
     <p>This tag will <mark>highlight</mark> the text.</p>
  </body>
</html>
```

Output

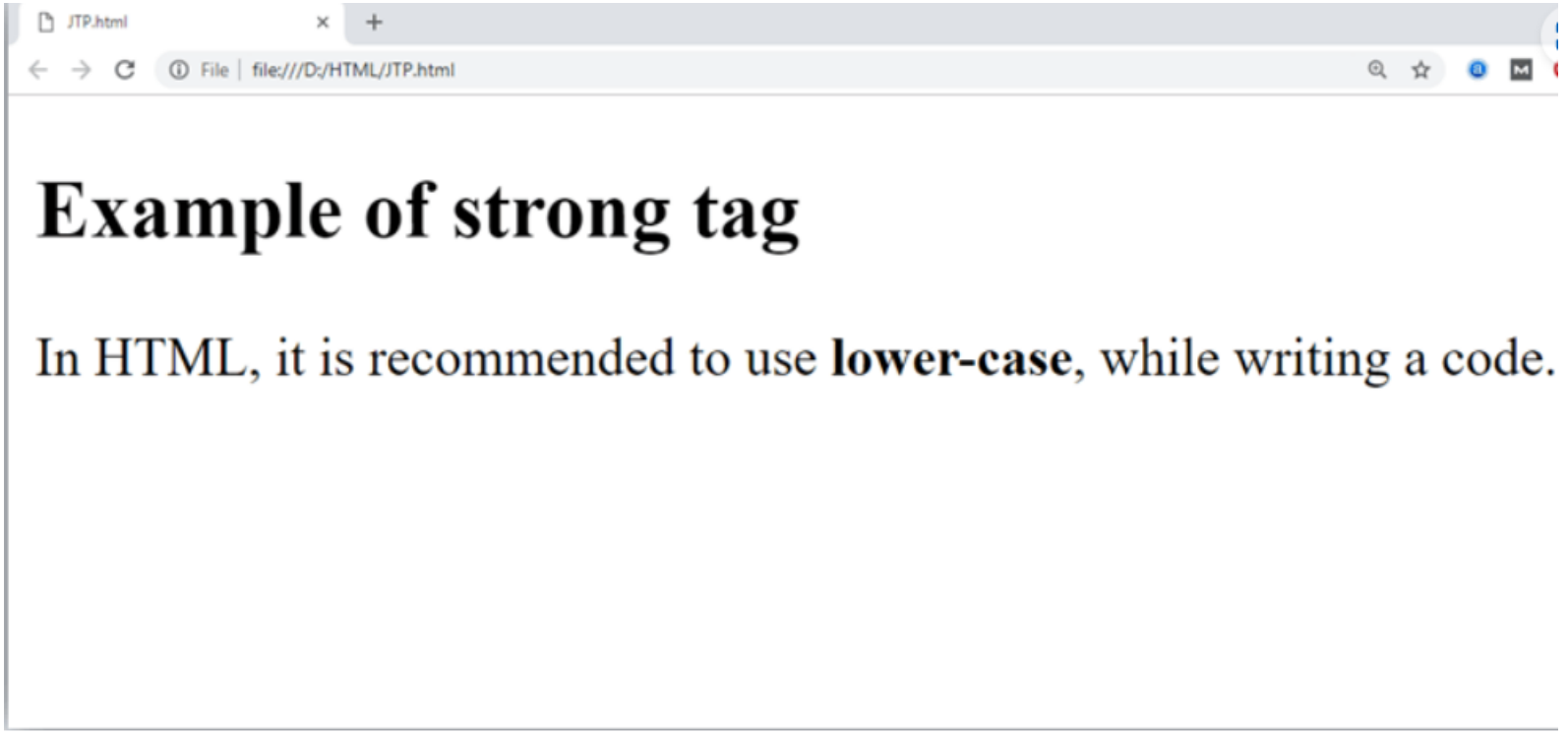
JTP.html
File | file:///D:/HTML/JTP.html
Example of mark tag
This tag will highlight the text.

- 3. Strong text:
- This tag is used to display the important text of the content. The text written between and will be displayed as important text.

Example

** **In HTML it is recommended to use ****lower-case****, while writing a code. ** **

output


JTP.html
File | file:///D:/HTML/JTP.html
Example of strong tag
In HTML, it is recommended to use lower-case, while writing a code.

4. Emphasized text

- This tag is used to emphasize the text, and displayed the text in italic form. The text written between and tag will italicized the text.

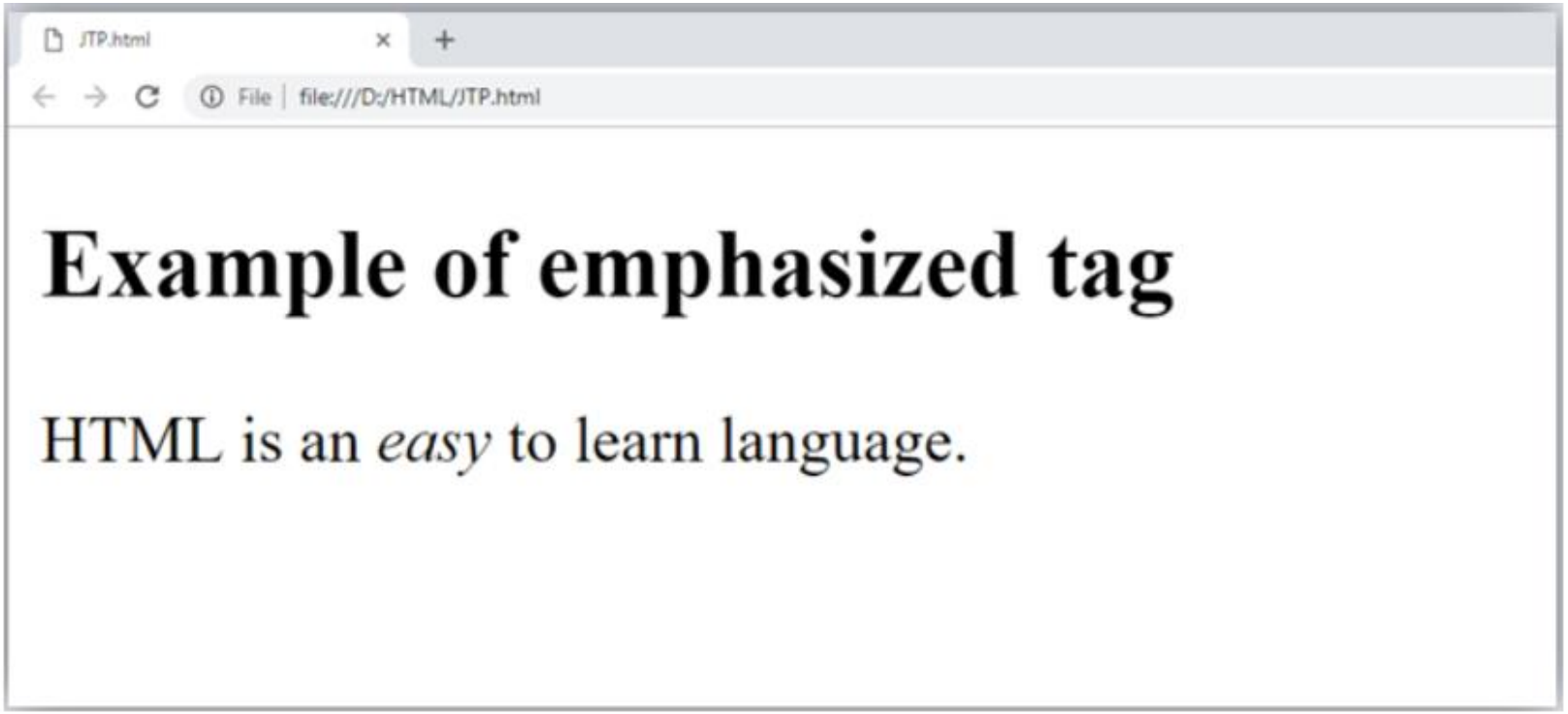
- Example

** **HTML is an ****easy ****to learn language.** **

Example

```
<!DOCTYPE html>
<html>
 <head>
          </head>
  <body>
     <h2>Example of emphasized tag</h2>
      <p>HTML is an <em>easy </em>to learn language.</p>
  </body>
</html>
```

Output


JTP.html
File | file:///D:/HTML/JTP.html
Example of emphasized tag
HTML is an easy to learn language.

- 5. Definition tag:
- When you use the <dfn> and </dfn> tags, it allow to specify the keyword of the content. Following is the example to show how to definition element.

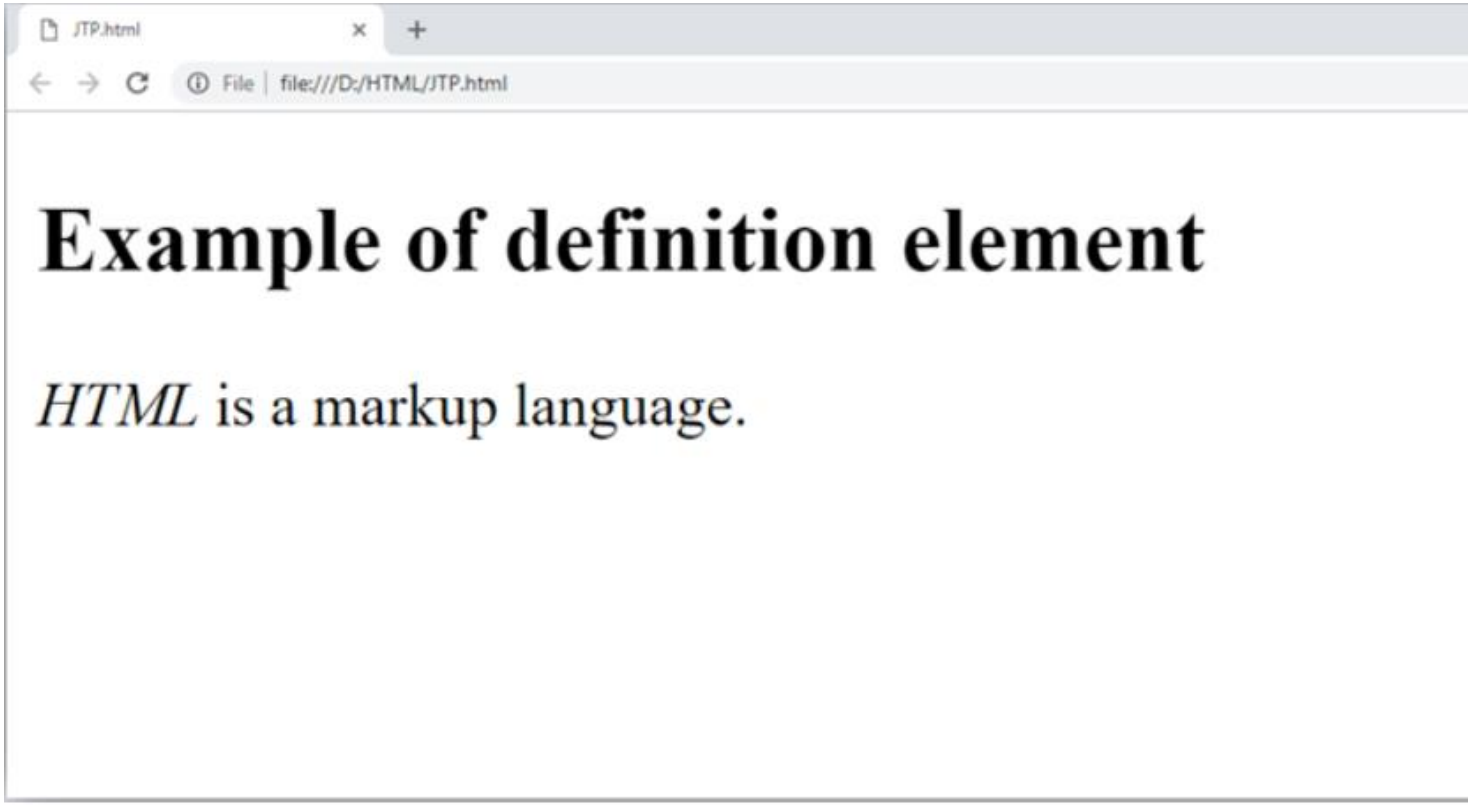
- Example

** <dfn>**HTML **</dfn>** is a markup language. ** **

Example

```
<!DOCTYPE html>
<html>
 <head>
          </head>
  <body>
    <h2>Example of definition element</h2>
     <p><dfn>HTML </dfn> is a markup language. </p>
  </body>
</html>
```

Output

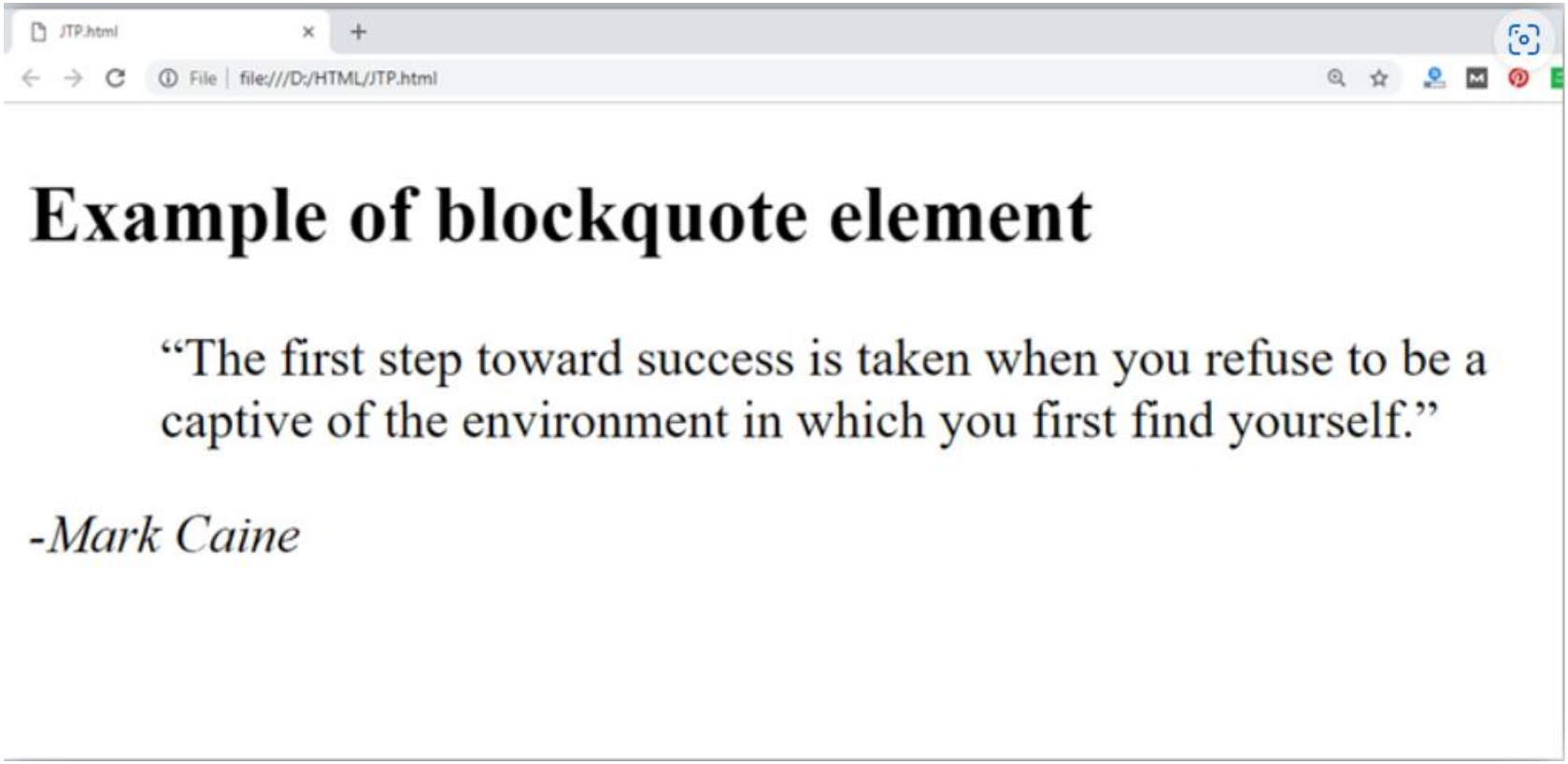

JTP.html
File | file:///D:/HTML/JTP.html
Example of definition element
HTML is a markup language.

- 6. Quoting text:
- The HTML <blockquote> element shows that the enclosed content is quoted from another source. The Source URL can be given using the cite attribute, and text representation of source can display using **<cite> ..... </cite>element**.

Example

```
<!DOCTYPE html>
<html>
 <head>
          </head>
  <body>
     <h2>Example of blockquote element</h2>
      <blockquote cite="https://www.keepinspiring.me/famous-quotes/"><p>"The first step toward success is taken when you refuse to be a captive of the environment in which you first find yourself."</p></blockquote>
      <cite>-Mark Caine</cite>
  </body>
</html>
```

Output


JTP.html
File | file:///D:/HTML/JTP.html
Example of blockquote element
"The first step toward success is taken when you refuse to be a captive of the environment in which you first find yourself."
-Mark Caine

- 7. Short Quotations:
- An HTML <q> ..... </q> element defines a short quotation. If you will put any content between <q> ..... </q>, then it will enclose the text in double quotes.

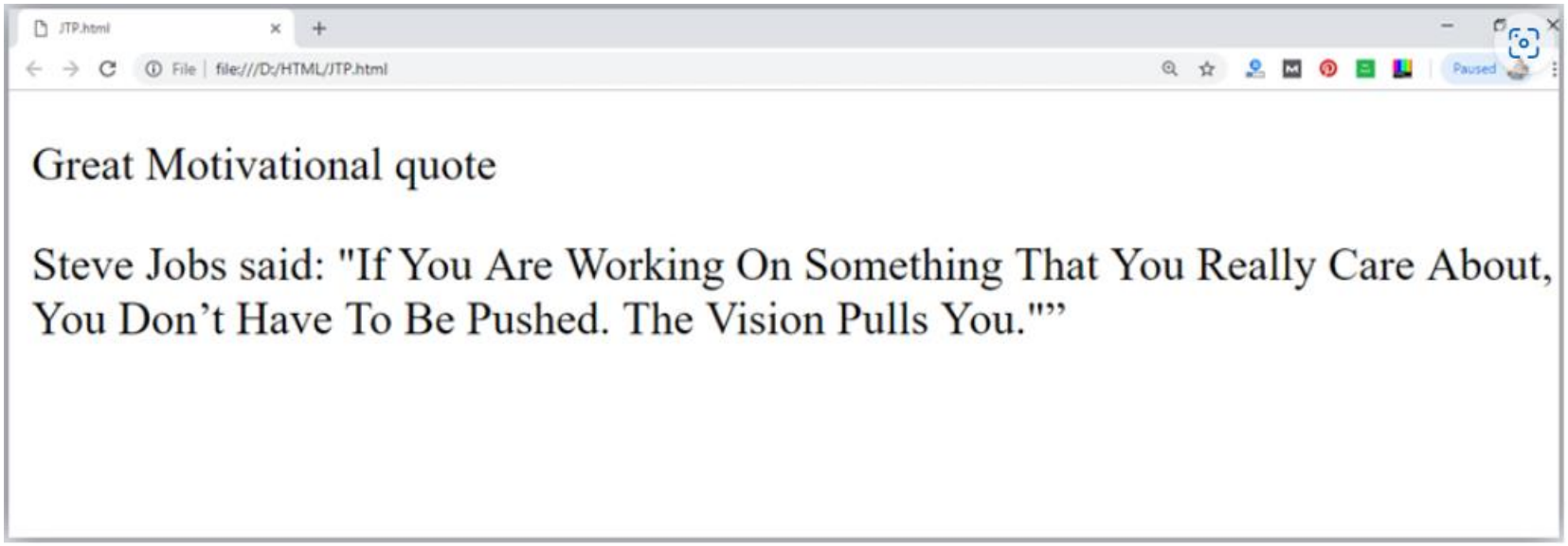
- Example:

** **Steve Jobs said: **<q>**If You Are Working On Something That You Really Care About, You Don?t Have To Be Pushe d. The Vision Pulls You.**</q>**?** **

Example

```
<!DOCTYPE html>
<html>
  <head>
          </head>
  <body>
     <p>Great Motivational quote</p>
      <p>Steve Jobs said: <q>If You Are Working On Something That You Really Care About, You Don?t Have To Be Pushed. The Vision Pulls You.</q>?</p>


  </body>
</html>
```

Output


JTP.html
File | file:///D:/HTML/JTP.html
Paused
Great Motivational quote
Steve Jobs said: "If You Are Working On Something That You Really Care About, You Don't Have To Be Pushed. The Vision Pulls You.""

8. Code tags

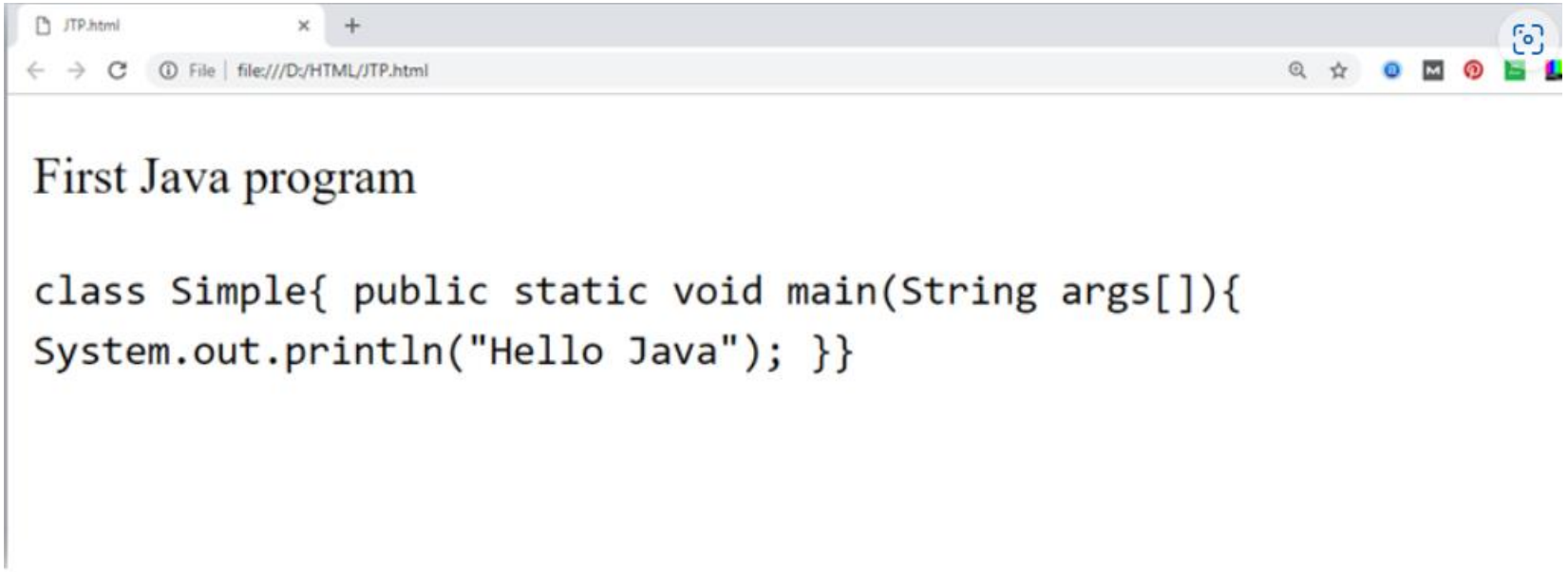
- The HTML <code> </code> element is used to display the part of computer code. It will display the content in monospaced font.

```
<p>First Java program</p>
    <p><code>class Simple{ public static void main(String args[]){
     System.out.println("Hello world"); }} </code>
   </p>
```

Example

```
<!DOCTYPE html>
<html>
  <head>
          </head>
  <body>
     <p>First Java program</p>
      <p><code>class Simple{ public static void main(String
args[]){
       System.out.println("Hello Java"); }} </code>
     </p>

  </body>
</html>
```

Output


JTP.html
File | file:///D:/HTML/JTP.html
First Java program
class Simple{ public static void main(String args[]){
System.out.println("Hello Java"); }}

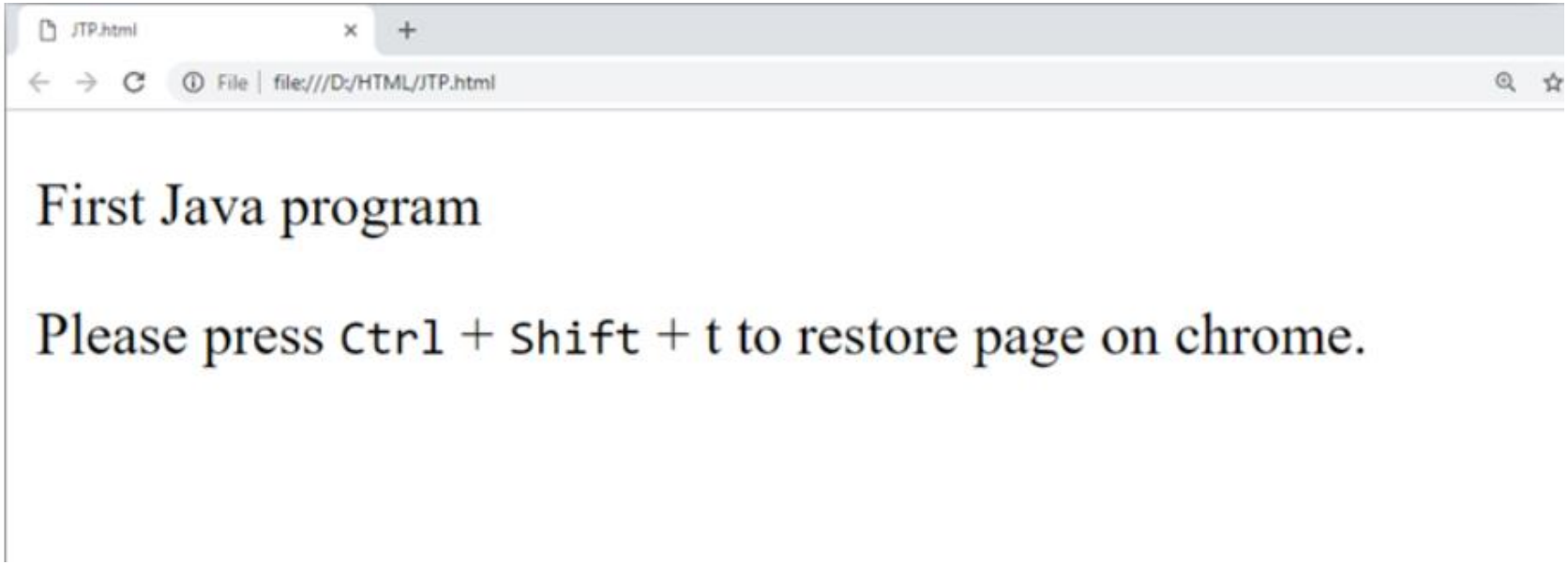
- 9. Keyboard Tag
- In HTML the keyboard tag, <kbd>, indicates that a section of content is a user input from keyboard.

** **Please press **<kbd>**Ctrl**</kbd>** + **<kbd>**Shift**</kbd>** + t **<kbd></kbd>** to restore page on chrome.** **

Example

```
<!DOCTYPE html>
<html>
  <head>
          </head>
  <body>
     <p>Keyboard input. </p>
    <p>Please press <kbd>Ctrl</kbd> + <kbd>Shift</kbd> +
t<kbd></kbd> to restore page on chrome.</p>


  </body>
</html>
```

Output


JTP.html
File | file:///D:/HTML/JTP.html
First Java program
Please press Ctrl + Shift + t to restore page on chrome.

10. Address tag

- An HTML <address> tag defines the contact information about the author of the content. The content written between <address> and </address> tag, then it will be displayed in italic font.

<address> You can ask your queries by contact us on **<a** h ref=""**>**example123@newdomain.com****

**
** You can also visit at: **
**58 S. Garfield Street. Villa Rica, GA 30187.

</address>

Example

```
<!DOCTYPE html>
<html>
  <head>
          </head>
  <body>
     <p>Address Tag</p>
    <address> You can ask your queries by contact us on <a href=" ">example123@newdomain.com</a>
    <br> You can also visit at: <br>58 S. Garfield Street. Villa Rica, GA 30187.
   </address>
  </body>
</html>
```

Output

JTP.html
File | file:///D:/HTML/JTP.html
Address Tag
You can ask your queries by contact us on example123@newdomain.com
You can also visit at:
58 S. Garfield Street. Villa Rica, GA 30187.

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.
- The href attribute is used to define the address of the file to be linked. In other words, it points out the destination page.
- The syntax of HTML anchor tag is given below.

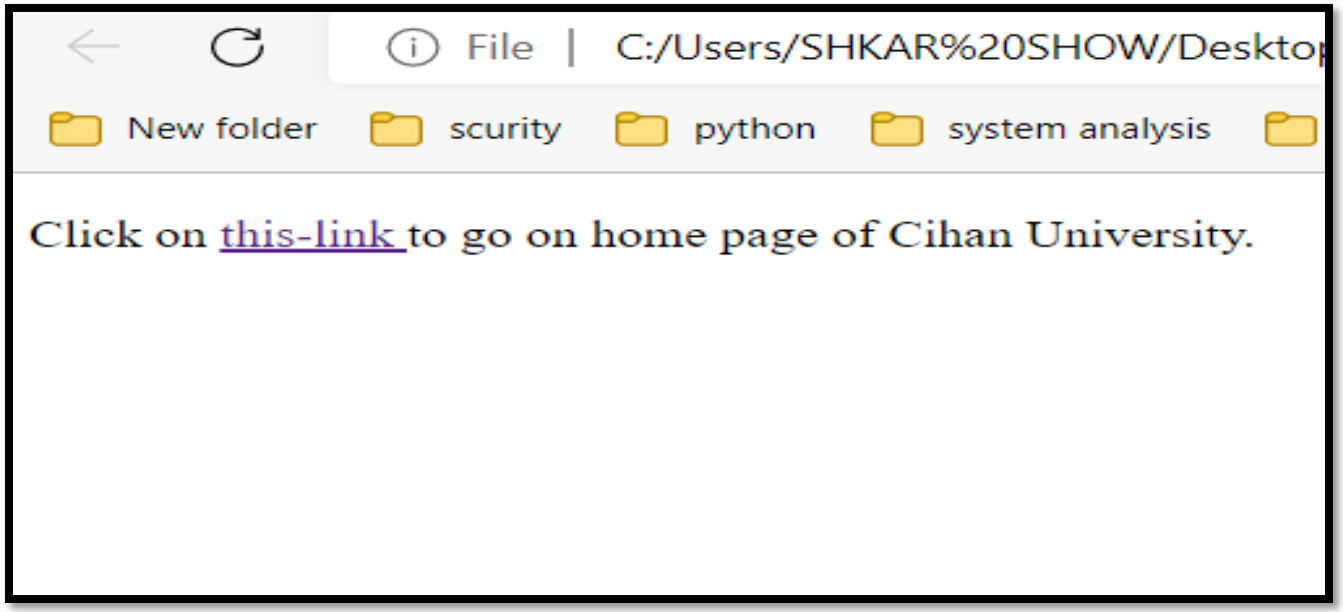
 Link Text

Specify a location for Link using target attribute

- If we want to open that link to another page then we can use target attribute of <a> tag. With the help of this link will be open in next page.

```
<!DOCTYPE html>
<html>
<head>
<title></title>
</head>
<body>
<p>Click on <a href="https://www.sulicihan.edu.krd/" target="_blank"> this-link </a>to go on home page of Cihan University.</p>
</body>
</html>
```

Output



Note:
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.

HTML Table

- **HTML table tag** is used to display data in tabular form (row * column). There can be many columns in a row.
- We can create a table to display data in tabular form, using <table> element, with the help of <tr> , <td>, and <th> elements.
- In Each table, table row is defined by <tr> tag, table header is defined by <th>, and table data is defined by <td> tags.
- HTML tables are used to manage the layout of the page e.g. header section, navigation bar, body content, footer section etc. But it is recommended to use div tag over table to manage the layout of the page .

HTML Table Tags

Tag	Description
<table>	It defines a table.
<tr>	It defines a row in a table.
<th>	It defines a header cell in a table.
<td>	It defines a cell in a table.
<caption>	It defines the table caption.
<colgroup>	It specifies a group of one or more columns in a table for formatting.

<col>	It is used with <colgroup> element to specify column properties for each column.
<tbody>	It is used to group the body content in a table.
<thead>	It is used to group the header content in a table.
<tfooter>	It is used to group the footer content in a table.

HTML Table Example

```
<!DOCTYPE>
<html>
<body>
<table>
<tr><th>First_Name</th><th>Last_Name</th><th>Marks</th></
tr>
<tr><td>Ahmed </td><td>ALi</td><td>60</td></tr>
<tr><td> sara</td><td>Kareem</td><td>80</td></tr>
<tr><td>Sarmad</td><td>Sabir</td><td>82</td></tr>
<tr><td>zanap</td><td>Ferhad</td><td>72</td></tr>
</table>
</body>
</html>
```

Output

First_Name	Last_Name	Marks
Ahmed	ALi	60
sara	Kareem	80
Sarmad	Sabir	82
zanap	Ferhad	72

HTML Table with Border

- If you do not specify a border attribute, the table will be displayed without borders. Sometimes this can be useful, but most of the time, we want the borders to show.

- There are two ways to specify border for HTML tables.

1. By border attribute of table in HTML
2. By border property in CSS

1. HTML Border attribute

You can use border attribute of table tag in HTML to specify border. But it is not recommended now.

```
<!DOCTYPE>
<html>
<body>
<table border="1">
<tr><th>First_Name</th><th>Last_Name</th><th>Marks</th></tr>
<tr><td>Sonoo</td><td>Jaiswal</td><td>60</td></tr>
<tr><td>James</td><td>William</td><td>80</td></tr>
<tr><td>Swati</td><td>Sironi</td><td>82</td></tr>
<tr><td>Chetna</td><td>Singh</td><td>72</td></tr>
</table>
</body>
</html>
```

Output

First_Name	Last_Name	Marks
Sonoo	Jaiswal	60
James	William	80
Swati	Sironi	82
Chetna	Singh	72

2) CSS Border property

- It is now recommended to use border property of CSS to specify border in table.

```
<style>
table, th, td {
  border: 1px solid black;
}
</style>
```

Example

```
<!DOCTYPE>
<html>
<head>
<style>
table, th, td {
    border: 1px solid black;
    border-collapse: collapse;
}
</style>
</head>
<body>
<table>
<tr><th>First_Name</th><th>Last_Name</th><th>Marks</th></tr>
<tr><td>Sonoo</td><td>Jaiswal</td><td>60</td></tr>
<tr><td>James</td><td>William</td><td>80</td></tr>
<tr><td>Swati</td><td>Sironi</td><td>82</td></tr>
<tr><td>Chetna</td><td>Singh</td><td>72</td></tr>
</table>
</body>
</html>
```

Output

First_Name	Last_Name	Marks
Sonoo	Jaiswal	60
James	William	80
Swati	Sironi	82
Chetna	Singh	72

HTML Form

- An **HTML form** is *a section of a document* which contains controls such as text fields, password fields, checkboxes, radio buttons, submit button, menus etc.

- An HTML form facilitates the user to enter data that is to be sent to the server for processing such as name, email address, password, phone number, etc. .

Why use HTML Form

- HTML forms are required if you want to collect some data from of the site visitor.
- For example: If a user want to purchase some items on internet, he/she must fill the form such as shipping address and credit/debit card details so that item can be sent to the given address.

HTML Form Syntax

- **<form** action="server url" method="get|post"**>**
- //input controls e.g. textfield, textarea, radiobutton, button

- **</form>**

HTML Form Tags

Tag	Description
<form>	It defines an HTML form to enter inputs by the used side.
<input>	It defines an input control.
<textarea>	It defines a multi-line input control.
<label>	It defines a label for an input element.
<fieldset>	It groups the related element in a form.
<legend>	It defines a caption for a <fieldset> element.

<select>	It defines a drop-down list.
<optgroup>	It defines a group of related options in a drop-down list.
<option>	It defines an option in a drop-down list.
<button>	It defines a clickable button.

HTML <form> element

- The HTML <form> element provide a document section to take input from user. It provides various interactive controls for submitting information to web server such as text field, text area, password field, etc.

Note: The <form> element does not itself create a form but it is container to contain all required form elements, such as <input>, <label>, etc.

Syntax:

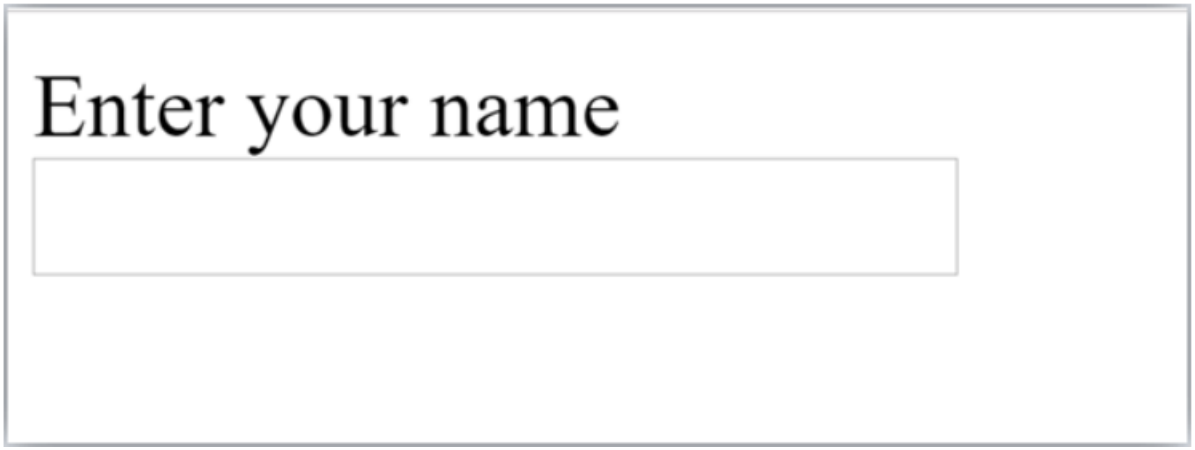
```
<form>
//Form elements
</form>
```

HTML <input> element

The HTML <input> element is fundamental form element. It is used to create form fields, to take input from user. We can apply different input filed to gather different information form user. Following is the example to show the simple text input.

```
<body>
  <form>
     Enter your name  <br>
    <input type="text" name="username">
  </form>
</body>
```

Output



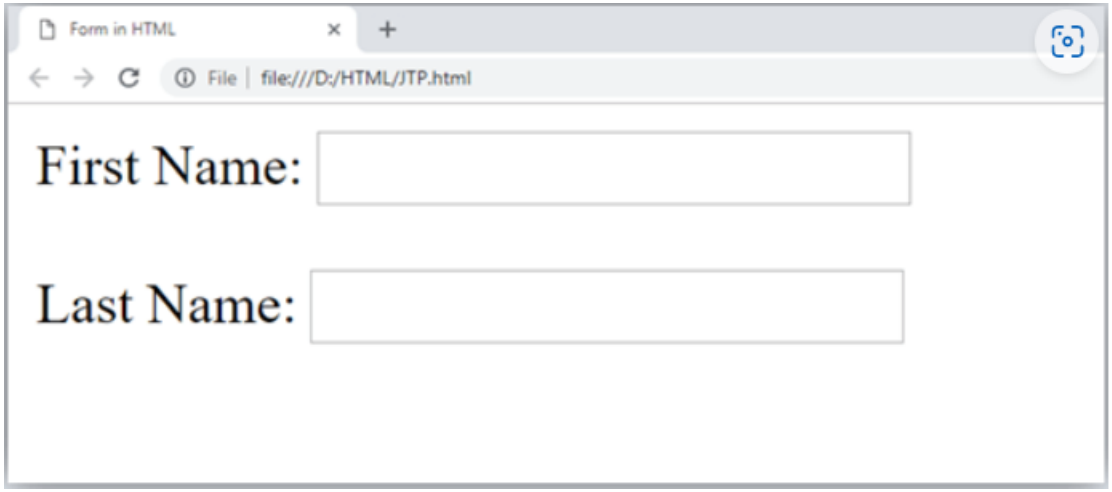
HTML TextField Control

- The type="text" attribute of input tag creates textfield control also known as single line textfield control. The name attribute is optional, but it is required for the server side component such as JSP, ASP, PHP etc.

```
<form>
   First Name: <input type="text" name="firstname"/> <br/>
   Last Name:  <input type="text" name="lastname"/> <br/>
 </form>
```

Note: If you will omit 'name' attribute then the text filed input will not be submitted to server.

Output



HTML <textarea> tag in form

- The <textarea> tag in HTML is used to insert multiple-line text in a form. The size of <textarea> can be specify either using "rows" or "cols" attribute or by CSS.

Example:

```
<!DOCTYPE html>
<html>
<head>
   <title>Form in HTML</title>
</head>
<body>
  <form>
       Enter your address:<br>
     <textarea rows="2" cols="20"></textarea>
  </form>
</body>
</html>
```

Output

Form in HTML
File | file:///D:/HTML/JTP.html?name=&name=
Enter your address:

Label Tag in Form

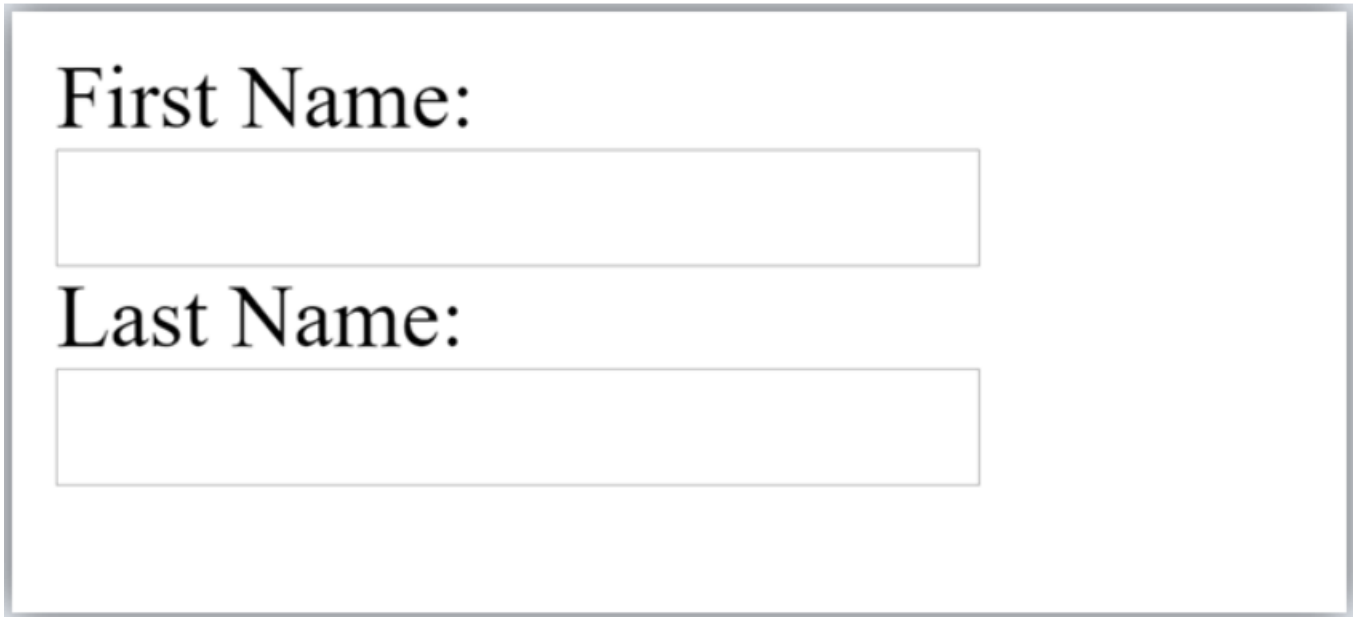
- It is considered better to have label in form. As it makes the code parser/browser/user friendly.
- If you click on the label tag, it will focus on the text control. To do so, you need to have for attribute in label tag that must be same as id attribute of input tag.

NOTE: It is good to use <label> tag with form, although it is optional but if you will use it, then it will provide a focus when you tap or click on label tag. It is more worthy with touchscreens.

example

```
<!DOCTYPE html>
<html>
<body>
<h2> label </h2>
<p>We can add label for each input</p>
<form>
    <label for="firstname">First Name: </label>
            <input type="text" id="firstname" name="firstname"/> <br/><br/>
   <label for="lastname">Last Name: </label>
            <input type="text" id="lastname" name="lastname"/> <br/>
 </form>


 </body>
</html>
```

Output

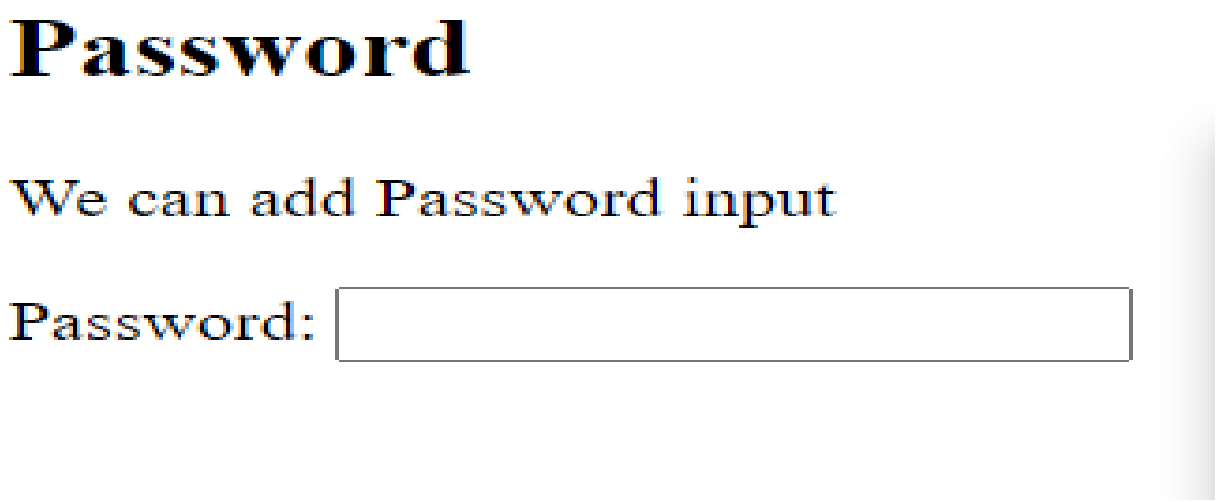


HTML Password Field Control

- The password is not visible to the user in password field control.

```
<!DOCTYPE html>
<html>
<body>
<h2> Password </h2>
<p>We can add Password input</p>
<form>
   <label for="password">Password: </label>
          <input type="password" id="password" name="password"/>
<br/>
</form>

 </body>
</html>
```

Output



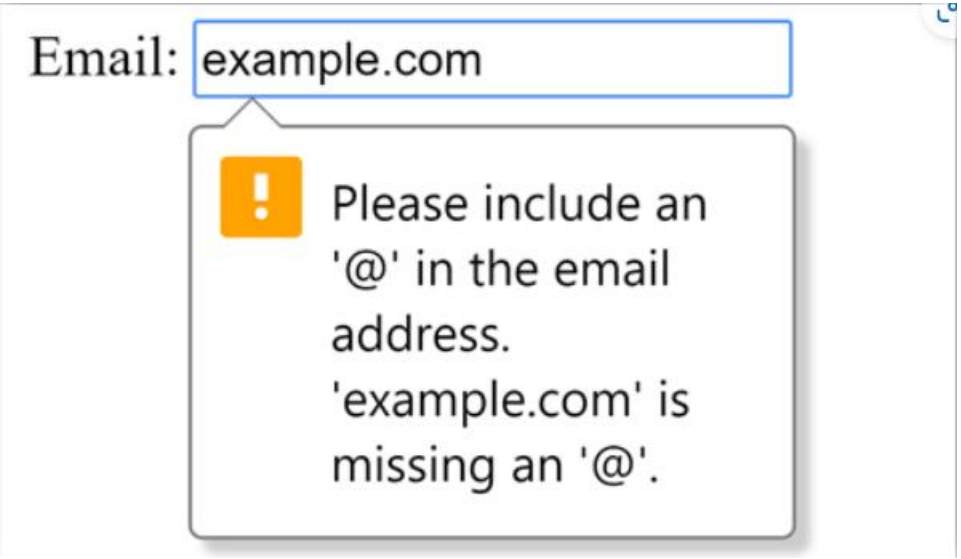
HTML 5 Email Field Control

- The email field in new in HTML 5. It validates the text for correct email address. You must use @ and . in this field.

```
<form>
   <label for="email">Email: </label>
         <input type="email" id="email" name="email"/> <br/>
</form>
```

- It will display in browser like below:

- Note: If we will not enter the correct email, it will display error like:



Example2

```
<!DOCTYPE html>
<html>

<body>
            <h3>Input "email" type</h3>
 <form>
                        <label><b>Enter your Email-address</b></label>
       <input type="email" name="email" required>
       <input type="submit">
        <p><strong>Note:</strong>User can also enter multiple email addresses separating by comma or whitespace as following: </p>
        <label><b>Enter multiple Email-addresses</b></label>
        <input type="email" name="email"  multiple>
       <input type="submit">
</form>

</body>
</html>
```

Output

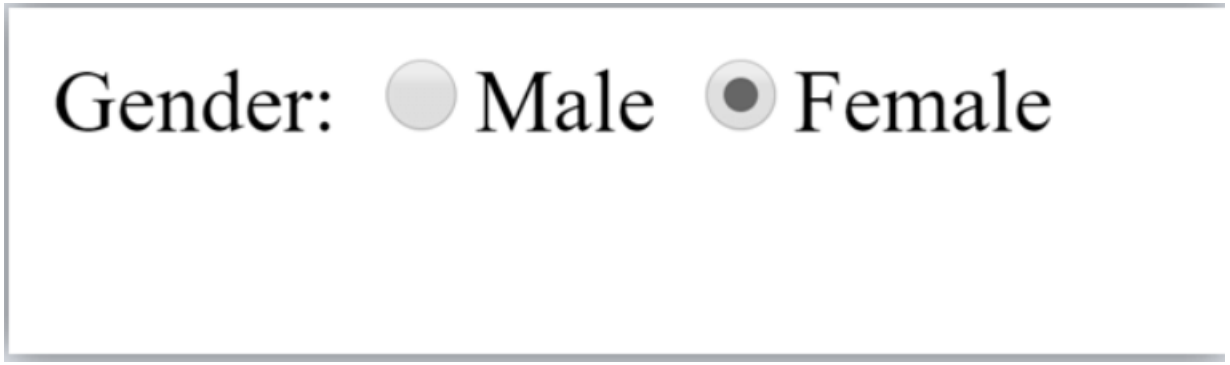
Input "email" type
Enter your Email-address
Submit
Note:User can also enter multiple email addresses separating by comma or whitespace as following:
Enter multiple Email-addresses
Submit

Radio Button Control

- The radio button is used to select one option from multiple options. It is used for selection of gender, quiz questions etc.
- If you use one name for all the radio buttons, only one radio button can be selected at a time.
- Using radio buttons for multiple options, you can only choose a single option at a time.

Example

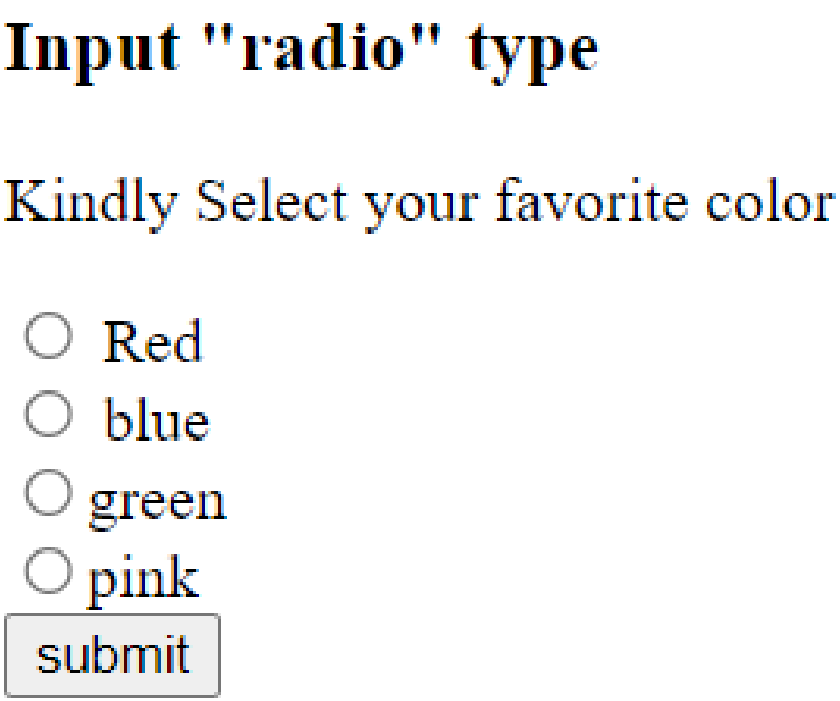
```
<form>
    <label for="gender">Gender: </label>
            <input type="radio" id="gender" name="gender" value="male"/>Male
            <input type="radio" id="gender" name="gender" value="female"/>Fem
ale <br/>
</form>
```



Example

```
<!DOCTYPE html>
<html>
<body>
<h3>Input "radio" type</h3>
 <form>
  <p>Kindly Select your favorite color</p>
  <input type="radio" name="color" value="red"> Red <br>
  <input type="radio" name="color" value="blue"> blue <br>
  <input type="radio" name="color" value="green">green <br>
  <input type="radio" name="color" value="pink">pink <br>
  <input type="submit" value="submit">
</form>
</body>
</html>
```

Output

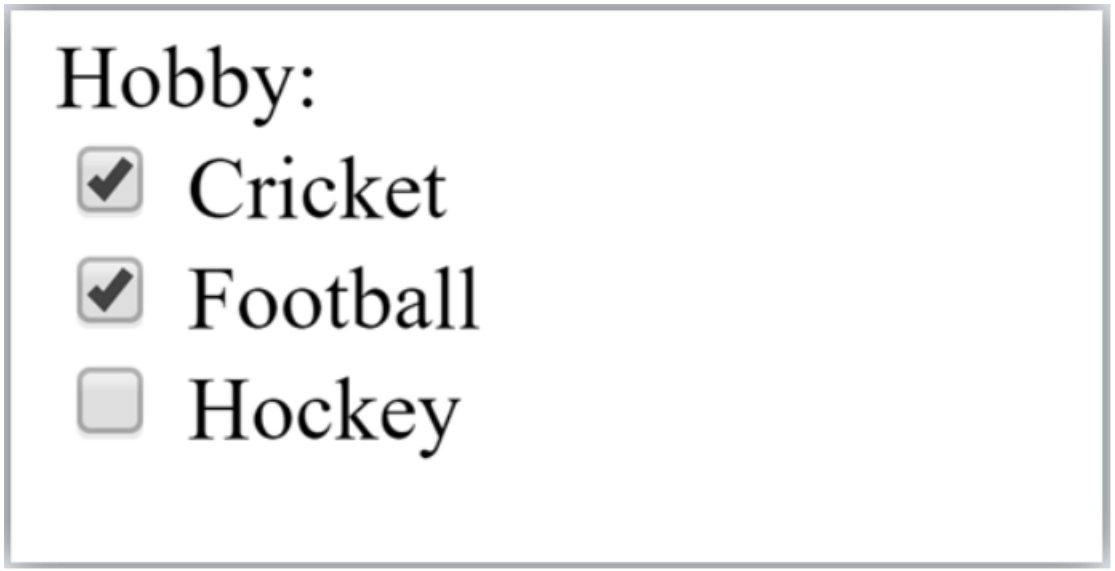

Input "radio" type
Kindly Select your favorite color
Red
blue
green
pink
submit

Checkbox Control

The checkbox control is used to check multiple options from given checkboxes.

```
<form>
Hobby:<br>
        <input type="checkbox" id="cricket" name="cricket" val
ue="cricket"/>
          <label for="cricket">Cricket</label> <br>
        <input type="checkbox" id="football" name="football" v
alue="football"/>
          <label for="football">Football</label> <br>
        <input type="checkbox" id="hockey" name="hockey" va
lue="hockey"/>
          <label for="hockey">Hockey</label>
</form>
```

Output

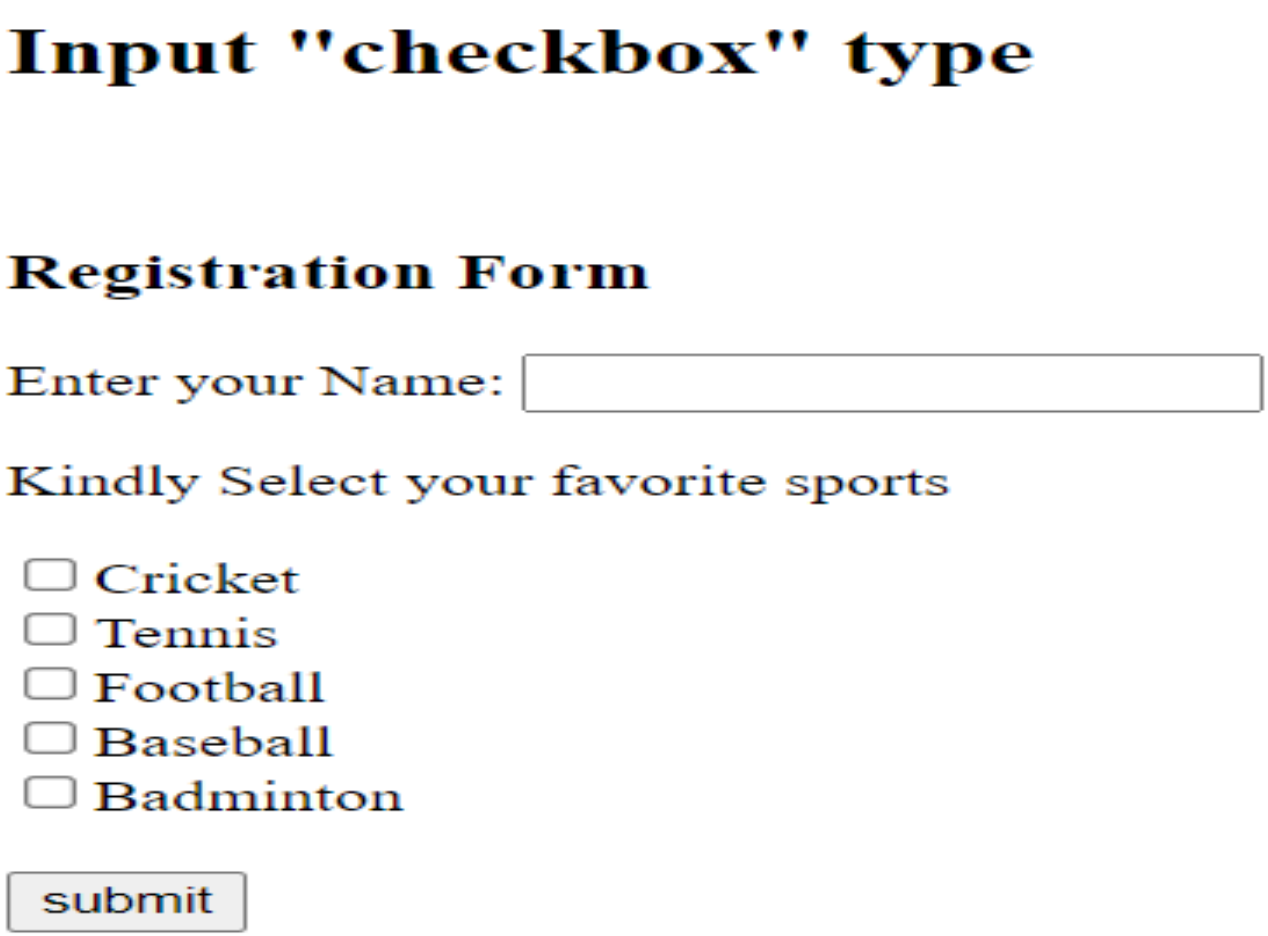


- Note: These are similar to radio button except it can choose multiple options at a time and radio button can select one button at a time, and its display.

Example

```
<!DOCTYPE html>
<html>
<body>
<h2>Input "checkbox" type</h2><br>
 <h3>Registration Form</h3>
 <form>
                <label>Enter your Name:</label>
                <input type="text" name="name">
     <p>Kindly Select your favorite sports</p>
     <input type="checkbox" name="sport1" value="cricket">Cricket<br>
                <input type="checkbox" name="sport2" value="tennis">Tennis<br>
                <input type="checkbox" name="sport3" value="football">Football<br>
                <input type="checkbox" name="sport4" value="baseball">Baseball<br>
                <input type="checkbox" name="sport5" value="badminton">Badminton<br><br>
                <input type="submit" value="submit">
  </form>
</body>
</html>
```

Output


Input "checkbox" type
Registration Form
Enter your Name:
Kindly Select your favorite sports
Cricket
Tennis
Football
Baseball
Badminton
submit

<input type="button">

- The <input> type "button" defines a simple push button, which can be programmed to control a functionally on any event such as, click event.

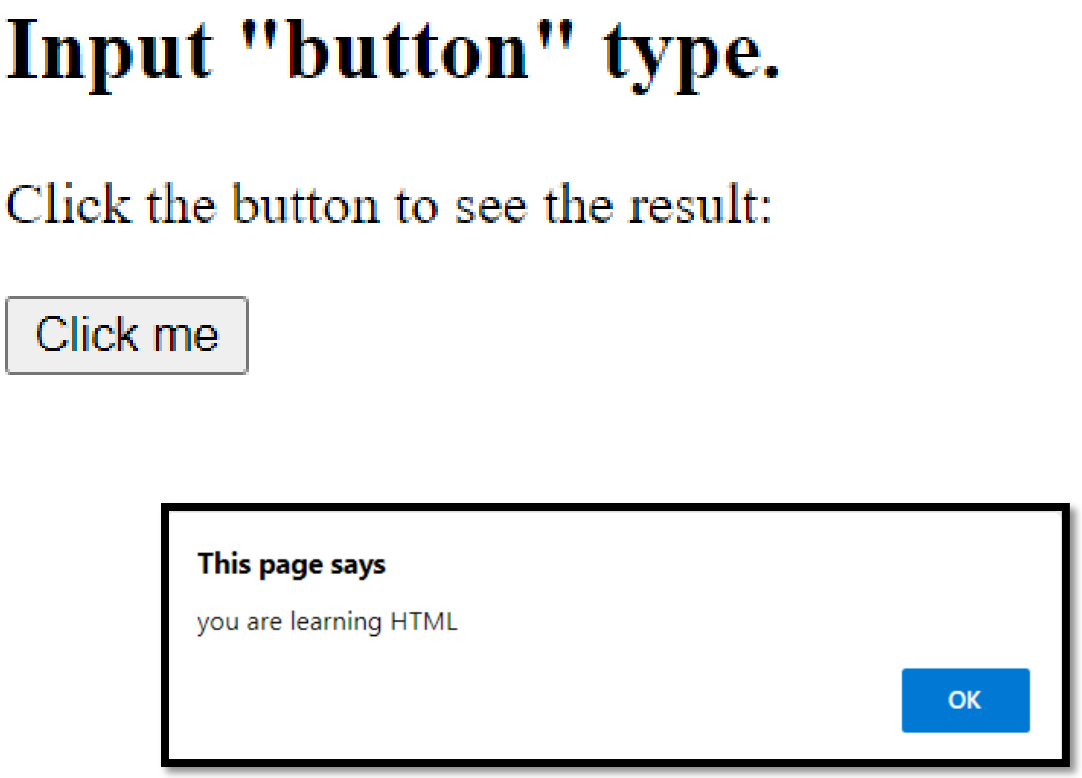
```
<form>
    <input type="button" value="Clcik me " onclick="alert('you are learni
ng HTML')">
</form>
```

Note: It mainly works with JavaScript.

Example

```
<!DOCTYPE html>
<html>
<body>
        <h2>Input "button" type.</h2>
        <p>Click the button to see the result: </p>
    <form>
     <input type="button" value="Click me" onclick="alert('you are learning HTML')">
  </form>
 </body>
</html>
```

Output


Input "button" type.
Click the button to see the result:
Click me
This page says
you are learning HTML
OK

Submit button control

- HTML **<input type="submit">** are used to add a submit button on web page. When user clicks on submit button, then form get submit to the server.
- Syntax:

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

- The type = submit , specifying that it is a submit button
- The value attribute can be anything which we write on button on web page.
- The name attribute can be omit here.

Example:

```
<form>
    <label for="name">Enter name</label><br>
    <input type="text" id="name" name="name"><br>
    <label for="pass">Enter Password</label><br>
    <input type="Password" id="pass" name="pass"><br>
    <input type="submit" value="submit">
</form>
```

Output

Form in HTML
File | file:///D:/HTML/JTP.html?name=&name=
Enter name
Enter Password
submit

<input type="reset">:

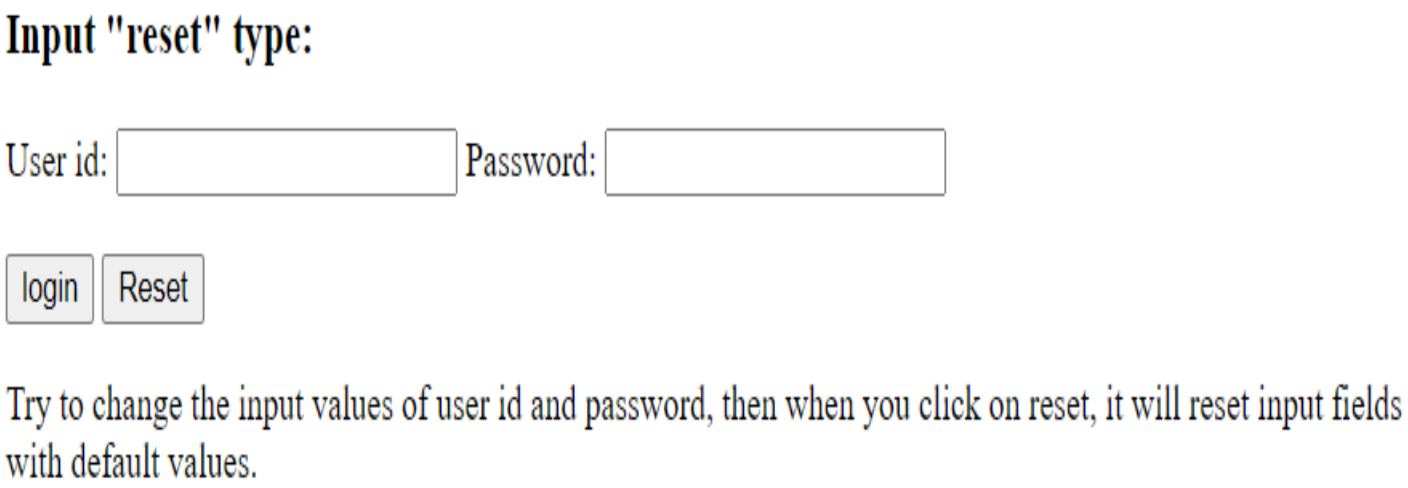
- The <input> type "reset" is also defined as a button but when the user performs a click event, it by default reset the all inputted values.

```
<form>
   <label>User id: </label>
    <input type="text" name="user-id" value="user">
          <label>Password: </label>
    <input type="password" name="pass" value="pass"><br><br>
    <input type="submit" value="login">
     <input type="reset" value="Reset">
</form>
```

Example

```
<!DOCTYPE html>
<html>
<body>
            <h3>Input "reset" type:</h3>
<form>
            <label>User id: </label>
             <input type="text" name="user-id" value=" ">
    <label>Password: </label>
             <input type="password" name="pass" value=""><br><br>
             <input type="submit" value="login">
              <input type="reset" value="Reset">
</form>
  <p>Try to change the input values of user id and password, then when you click on reset, it will reset input fields with default values. </p>
</body>
</html>
```

Output


Input "reset" type:
User id:
Password:
login
Reset
Try to change the input values of user id and password, then when you click on reset, it will reset input fields with default values.

<input type="file">

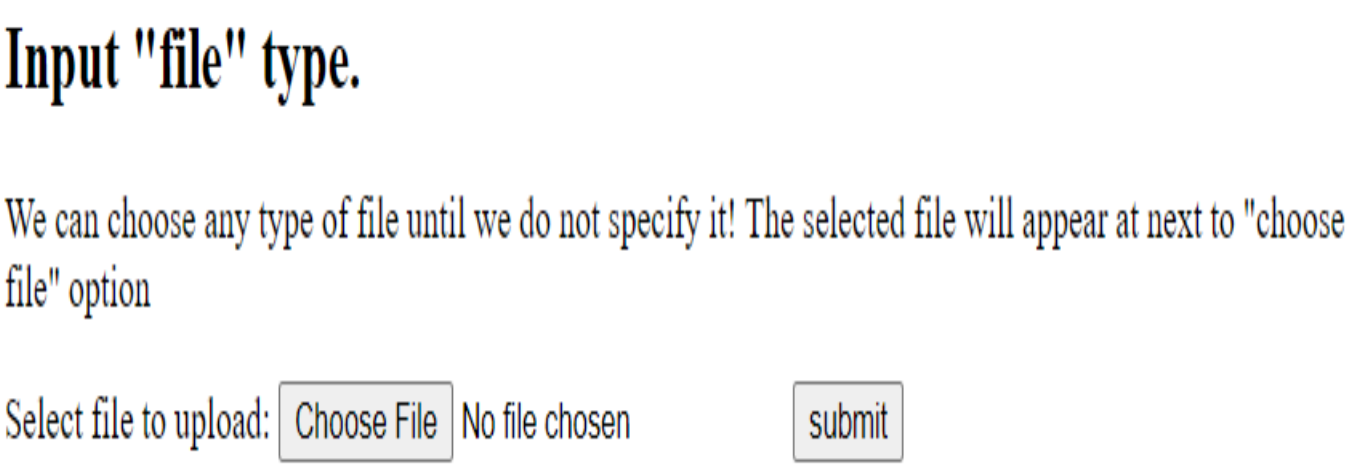
- The <input> element with type "file" is used to select one or more files from user device storage. Once you select the file, and after submission, this file can be uploaded to the server with the help of JS code and file API.

```
<form>
    <label>Select file to upload:</label>
    <input type="file" name="newfile">
    <input type="submit" value="submit">
</form>
```

Example

```
<!DOCTYPE html>
<html>
<body>
        <h2>Input "file" type.</h2>
        <p>We can choose any type of file until we do not specify it!
The selected file will appear at next to "choose file" option</p>
    <form>
     <label>Select file to upload:</label>
     <input type="file" name="newfile">
     <input type="submit" value="submit">
  </form>
 </body>
</html>
```

Output


Input "file" type.
We can choose any type of file until we do not specify it! The selected file will appear at next to "choose file" option
Select file to upload:
Choose File
No file chosen
submit

<input type="image">

- The <input> type "image" is used to represent a submit button in the form of image.

```
<!DOCTYPE html>
<html>
<body>
<h2>Input "image" type.</h2>
<p>We can create an image as submit button</p>
  <form>
    <label>User id:</label><br>
     <input type="text" name="name"><br><br>
     <input type="image" alt="Submit" src="login.png"  width="100px">
  </form>

 </body>
</html>
```

<input type="color">

- The <input> type "color" is used to define an input field which contains a colour. It allows a user to specify the colour by the visual colour interface on a browser.

Note: The "color" type only supports color value in hexadecimal format, and the default value is #000000 (black).

Example

```
<!DOCTYPE html>
<html>
<body>
        <h3>Input "color" types:</h3>
 <form>
        Pick your Favorite color: <br><br>
        <input type="color" name="upclick" value="#a52a2a"> Up-click<br><br>
        <input type="color" name="downclick" value="#f5f5dc"> Down-click
  </form>
  <p><strong>Note:</strong>The default value of "color" type is #000000 (black). It only supports color value in hexadecimal format.</p>
 </body>
</html>
```

Output

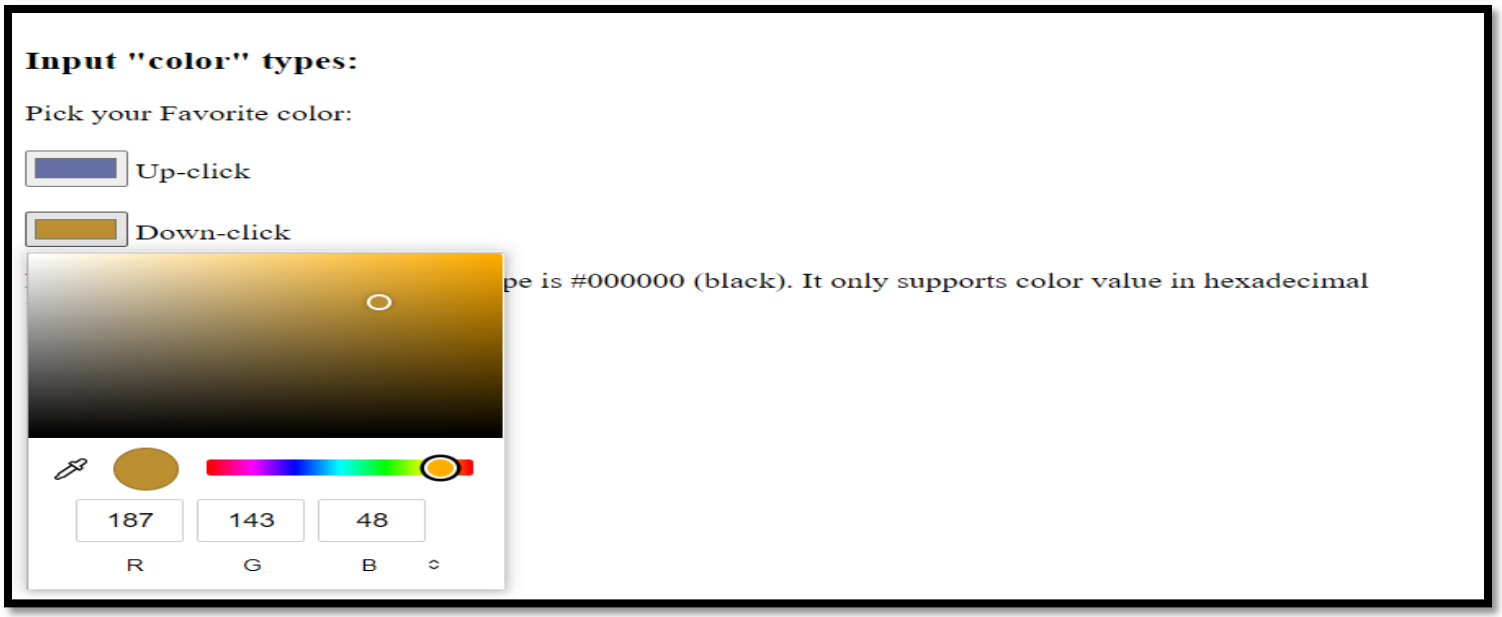
Input "color" types:

Pick your Favorite color:

Up-click

Down-click

Note: The default value of "color" type is #000000 (black). It only supports color value in hexadecimal format.



<input type="date">

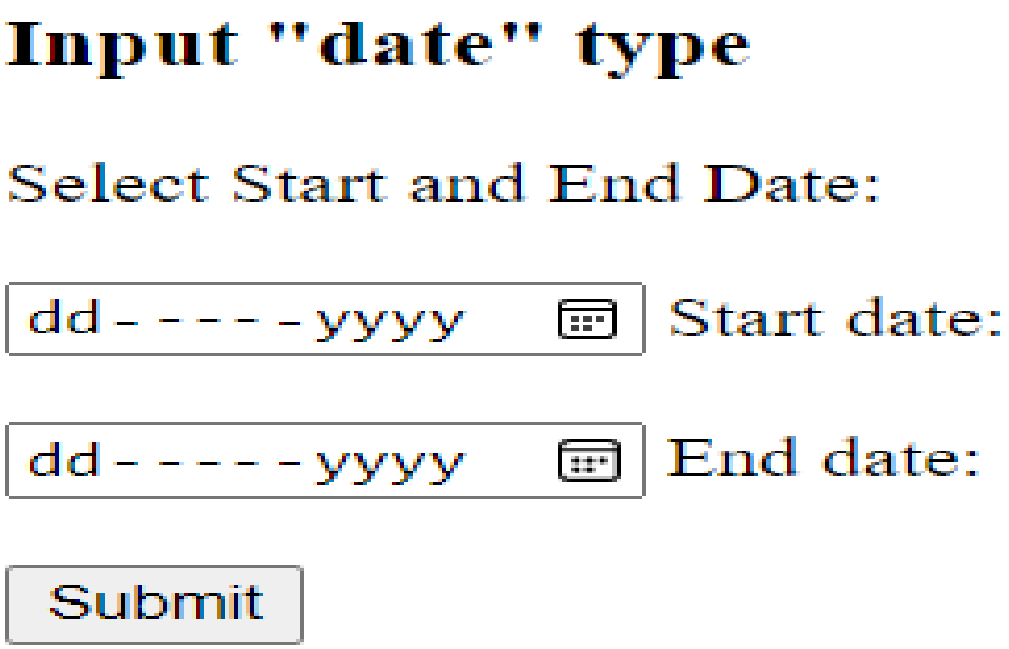
- The <input> element of type "date" generates an input field, which allows a user to input the date in a given format. A user can enter the date by text field or by date picker interface.

```
<form>
   Select Start and End Date: <br><br>
     <input type="date" name="Startdate"> Start date:<br><br>
     <input type="date" name="Enddate"> End date:<br><br>
    <input type="submit">
</form>
```

Example

```
<!DOCTYPE html>
<html>
<body>
        <h3>Input "date" type</h3>
 <form>
        Select Start and End Date: <br><br>
          <input type="date" name="Startdate"> Start date:<br><br>
          <input type="date" name="Enddate"> End date:<br><br>
         <input type="submit">
  </form>
 </body>
</html>
```

Output


Input "date" type
Select Start and End Date:
dd - - - - - yyyy
Start date:
dd - - - - - yyyy
End date:
Submit

<input type="month">

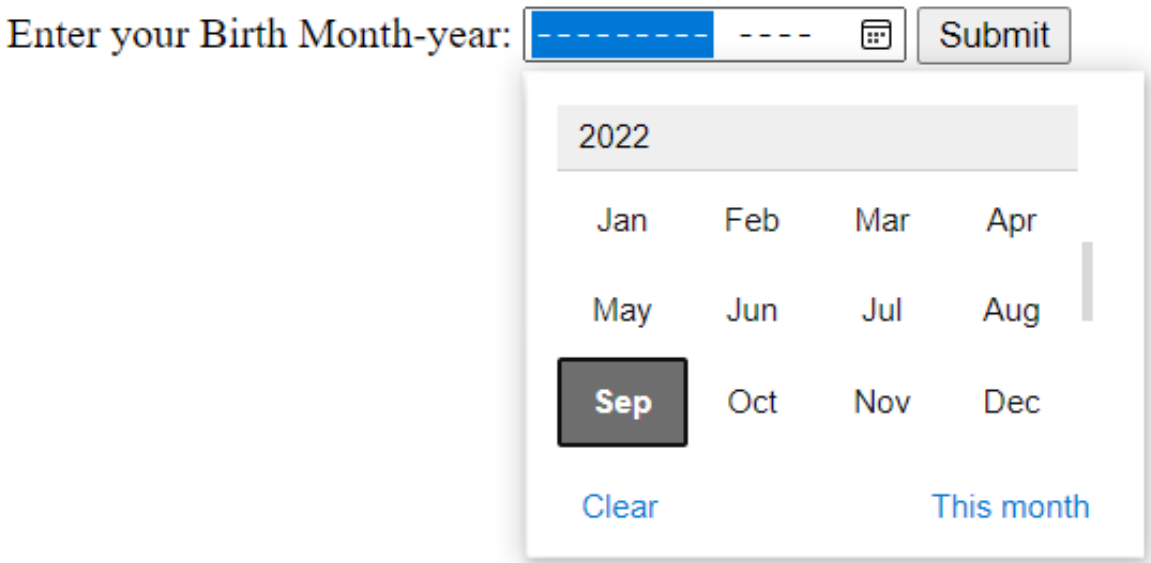
- The <input> type "month" creates an input field which allows a user to easily enter month and year in the format of "MM, YYYY" where MM defines month value, and YYYY defines the year value.

```
<form>
   <label>Enter your Birth Month-year: </label>
   <input type="month" name="newMonth">
   <input type="submit">
</form>
```

Example

```
<!DOCTYPE html>
<html>

<body>
        <h3>Input "month" type:</h3>
<form>
        <label>Enter your Birth Month-year: </label>
        <input type="month" name="newMonth">
        <input type="submit">
</form>
</body>
</html>
```

Output


Input "month" type:
Enter your Birth Month-year:
---------- ----
Submit
2022
Jan Feb Mar Apr
May Jun Jul Aug
Sep Oct Nov Dec
Clear
This month

<input type="number">:

- The <input> element type number creates input filed which allows a user to enter the numeric value. You can also restrict to enter a minimum and maximum value using min and max attribute.

```
<form>
   <label>Enter your age: </label>
   <input type="number" name="num" min="50" max="80">
    <input type="submit">
</form>
```

Example

```
<!DOCTYPE html>
<html>
<body>
        <h3>Input "number" type</h3>
 <form>
        <label>Enter your age: </label>
        <input type="number" name="num" min="50" max="80">
    <input type="submit">
</form>
<p><strong>Note:</strong>It will allow to enter number in range of 50-80. If you want to enter number other than range, it will show an error.</p>
</body>
</html>
```

Output

Input "number" type

Enter your age: [ ] Submit

Note: It will allow to enter number in range of 50-80. If you want to enter number other than range, it will show an error.

<input type="search">

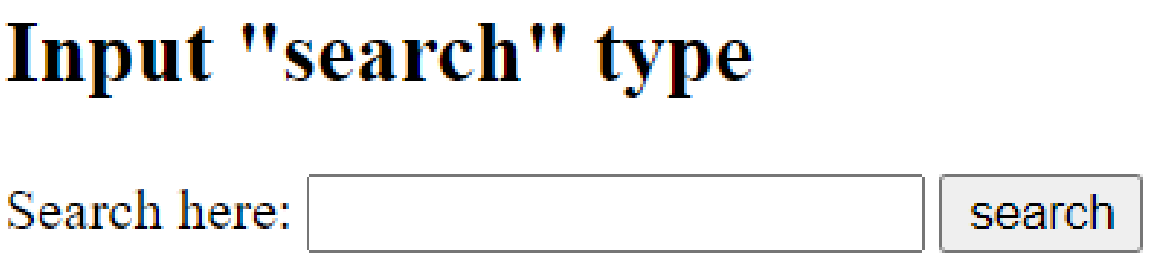
- The <input> type "search" creates an input filed which allows a user to enter a search string. These are functionally symmetrical to the text input type, but may be styled differently.

```
<form>
    <label>Search here:</label>
    <input type="search" name="q">
    <input type="submit" value="search">
</form>
```

Example

```
<!DOCTYPE html>
<html>

<body>
        <h2>Input "search" type</h2>
<form>
        <label>Search here:</label>
        <input type="search" name="q">
        <input type="submit" value="search">
</form>
</body>
</html>
```

Output



HTML <fieldset> element:

- The <fieldset> element in HTML is used to group the related information of a form. This element is used with <legend> element which provide caption for the grouped elements.

<fieldset>

<legend>User Information:</legend>

.

.

.

.

.

</fieldset>

Example

```
<HTML>
<HEAD>
<TITLE>A Complete HTML Frameset Exmaple | TutorialsClass.com</TITLE>
</HEAD>
<body >
<form>
     <fieldset>
      <legend>User Information:</legend>
    <label for="name">Enter name</label><br>
<input type="text" id="name" name="name"><br>
<label for="pass">Enter Password</label><br>
<input type="Password" id="pass" name="pass"><br>
<input type="submit" value="submit">
</fieldset>
</form>
</body>
</HTML>
```

Output