HTML

How a website work?

- A user enters a url like www.facebook.com then a website appears in browser whether it is in chrome or firefox.
- Whenever we enter a url it goes to server 1st before showing the website and website then comes and displays directly, we see the website only but in backend server sends the website.
- Server: It is like another computer where website code is stored. They just send us the website.
    1. They send HTML, CSS, Java script as a code & also sends lot of data like response, status code, headers, cookies etc.

- Database: Stores our information. Code is always stored in server
    1. www.facebook.com we have profile picture, email, friends etc all are stored in database.

- We request a website it goes to server, server goes to database, database access the data whatever needed and send back HTML, CSS & JS.
- Every time we enter url browser knows to which server it has to go. Brower has something called ip address.
    1. Every website has ip address www.facebook.com, www.google.com.
    2. It is like home address, so that someone can contact them.
    3. IPv4 - 192.0.2.146, Ipv6 - 2001:0db8:85a3:0000:0000:8a2e:0370:7334.
    4. IPv6 - used in mobile data, IPv4 - used in broad bands.
    5. Every domain name has ip.
    6. Whenever we hit www.google.com it goes to DNS (Domain Name System). DNS has domain names like www.google.com what is the ip address of this domain name. If ip address is like 192.... it checks the domain name and checks for ip address. After that it returns the ip address, whenever the ip address is returned it extends to that website.
    7. Domain name is required because we can't remember ip addressess 192.0.....,2001.odb8.....

- HTML- Normal layout, structure - Car- Basic structure.
- CSS – Styling.
- JS - Car is moving, door is opening. It is a programming language used for dynamic effects.

==========

HTTP, HTTPS:

- Whenever we go to website, we see http://www.google.com, https://www.google.com

1. HTTP: Hyper Text Transfer Protocol
2. HTTPS: Hyper Text Transfer Protocol Secure

- Whenever we send data in http from browser to server your data can be hacked in b/w. Your browser is sending data like HTML, CSS, JS this data can be hacked, it will reach but data will miss.
- HTTPS: It encrypt the data. Suppose, the name is John it will change into Somp changes the format.
- Browser encrypt that if hacker hacks also, they don't know the data only server knows the decryption about information.
- Decryption only known to browser and server only when in contact.

==========

- Go to google
- Inspect-HTML, CSS
- Network reload - data browser sending like header, response, payload, preview, cookies etc.

==========

HTML Vs CSS Vs Java script?

- HTML (Markup language)- Contents - images tag, video, audio songs, any articles, whatever we see.
- CSS (Designed styled language)- Styling, Design - Suppose your text is in corner you want to move it to centre. Moving upward, downward, here and there.
- JS (Programming language has classes, functions)- For adding dynamic effects suppose on button click you want to submit the form. May be, you have done signup there must be 6 characters.
- HTML Table - only html messy as soon we add CSS it is some better. JS - click me button text appears browser settings.

==========

w3.org - World Wide Web Consortium (W3C)- Takes care of HTML, new tags, released HTML5.

- org - organisation.
- Click Inspect - lot of data like Html, CSS in styles, JS in head tag- contains CSS, JS.

    1. Click head tag select delete element, it will be messy CSS is removed reload CSS will be present again.
    2. If we click delete element in head tag it is deleted in browser not in server so that it becomes normal again.

==========

- Download VS Code
- Path: C:\User\Dell>code .
- Folder: HTML

- HTML doesn't throw any error unless u install 3rd party app to know errors. Browser doesn't throw any error. VS Code may show u haven't closed the tag.
- After saving reload on browser.
- <TagName> Content </TagName>

==========

Doctype HTML Boilerplate:

- **DOCTYPE** - <!DOCTYPE html> -Type of document it is a type of html version5.Browser will know html because server will send only text. Browser will optimise rules.
- **<!DOCTYPE html>** - HTML version5.
- <!DOCTYPE HTML PUBLIC " //W#3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd"> -HTML version4.

<!DOCTYPE html>

<html>

</html>

<html> - Case sensitive - U can use small letters for better purpose

<head> - JS, CSS part

<body> - Html tags - paragraph tag, image tag, heading tag

<title> - Webpage title name

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        I can write whatever we feel like
    </body>
</html>
```

Whatever visible - body

==========

Spaces & Line Breaks:

- HTML removes extra spaces by itself apart from one single space and also removes next line and changes into space.

- To deal with we have break tag
,   used to overcome this.

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        Hello
        Hello how are you?
    </body>
</html>
```

o/p:

====

Hello Hello how are you?

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        Hello
        Hello how       are      you
    </body>
</html>
```

o/p:

====

Hello Hello how are you

==========

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
```

```
        Hello
        Hello how are you?
        I'm Good
    </body>
</html>
```

o/p:

====

Hello Hello how are you? I'm Good

==========

Paragraph and Pre tag:

- Paragraph tag is used for writing paragraphs, content.
- There are around 115+ tags, mainly we use 15-20 tags.

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <p> This is a paragraph tag      Hello</p>
    </body>
</html>
```

o/p:

====

This is a paragraph tag Hello

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <p> This is a paragraph tag      Hello</p>Something Else
    </body>
</html>
```

o/p:

====

This is a paragraph tag Hello

Something Else

- Suppose we want whatever we write then we use pre tag same as paragraph tag.

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <pre> This is a pre tag.      But not a paragraph tag
            Hello
      </pre>
</html>
```

o/p:

====

```
This is a pre tag.      But not a paragraph tag
            Hello
```

- But pre tag is not much used.

==========

Elements, tags, Attributes:

- ** ** - tag

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <p>This is an Element</p>
</html>
```

o/p:

====

This is an Element

==========

- We can use Align but it is not much supported in HTML5, it is used in HTML4.

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <p align="right">This is an Element</p>
</html>
```

o/p:

====

This is an Element

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <h1 align="right">This is an Element</h1>
</html>
```

o/p:

====

This is an Element

==========

- We shouldn't use align like these because it is done by CSS.
- Putting text, height, color, changing text, shifting text from 1 window to another is done by CSS. These are degraded in HTML5.

==========

Comments:

- If you don't want something to be read by browser.
- Ctrl + /

<!-- -->

```
<!DOCTYPE html>
<html>
    <head>
```

```
        <title>My Page</title>
    </head>
    <body>
        <!-- <p>This is an Element<p> -->
</html>
```

o/p:

====

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <!-- This is the gallery portion -->
        Hello
</body>
</html>
```

o/p:

====

Hello

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <!-- This is the gallery portion -->
        Hello
        <!-- This is the gallery portion End-->
    </body>
</html>
```

o/p:

====

Hello

Multi-line Comment:

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <!-- This is the gallery portion -->
        Hello
        <!-- This is the gallery portion End
        hello
        hii
        -->
</html>
```

o/p:

====

Hello

Useful tags:

- **<h1> to <h6>** - Heading tag.
- **<p>** - Paragraph tag.
- **<hr>** - Horizontal tag - Self closing tag, doesn't need ending tag.
- **< br>** - break line tag.
- ** ** - If we want put some space it is not a tag.

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <h1>Chapters</h1>
        <hr/>
        <p>Chapter No. 1</p>
        <p>Chapter No. 2</p>
    </body>
</html>
```

o/p:

====

Chapters

Chapter No. 1

Chapter No. 2

==========

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <h1>Chapters</h1>
        <hr/>
        <p>Chapter No. 1
        Chapter No. 2 Chapter No. 3</p>
    </body>
</html>
```

o/p:

====

Chapters

Chapter No. 1 Chapter No. 2 Chapter No. 3

==========

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <h1>Chapters</h1>
```

```
        <hr/>
        <p>Chapter No. 1 <br/>
        Chapter No. 2 <br/> Chapter No. 3</p>
    </body>
</html>
```

o/p:

====

Chapters

Chapter No. 1
Chapter No. 2
Chapter No. 3

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <h1>Chapters</h1>
        <hr/>
        <p>Chapter No.           1 <br/><hr/>
        Chapter No.            2  <br/><hr/>
        Chapter No.             3</p><hr/>
    </body>
</html>
```

o/p:

===

Chapters

Chapter No. 1

Chapter No. 2

Chapter No. 3

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        Hello <br/> I'm Fine
    </body>
</html>
```

o/p:

===

Hello
I'm Fine

==========

- Center tag we shouldn't use it doesn't show error now but with frameworks it shows error.

- It is not supported in HTML5 and shows in red it is degraded. It should be done with CSS.

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <center>Hello</center>
    </body>
</html>
```

o/p:

====

Hello

==========

Nesting of tags:

- Whenever we put a tag inside any other tag so the superior tag will be dominance one. It could put it' s property to the inside tag.

- Here <p> tag will do nothing both will be in heading only.

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <h1>    <p>This is a paragaraph tag</p>     </h1>
        <p>     <h1>This is a H1 tag</h1>    </p>
    </body>
</html>
```

o/p:

====

This is a paragaraph tag

This is a H1 tag

- We can't put anything above <h1> we can put on <p> tag.

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
    <p>    <h1>    <p>This is a paragaraph tag</p>     </h1>
                <p>     <h1>This is a H1 tag</h1>    </p>
    </p>
    </body>
</html>
```

o/p:

====

This is a paragaraph tag

This is a H1 tag

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
    <!-- <h1>    <p> Hello </h1> </p>  // Wrong way -->
    <h1>    <p> Hello </p> </h1>
    </body>
</html>
```

o/p:

====

Hello

==========

Extensions in HTML:

Extensions applies properties to the code which helps to write the code faster.

We will install some extensions

Extensions-> Auto Rename Tag ->Install

Auto Rename Tag: automatically closes the tag if we do any change in heading tag in closing tag also changes will be done by itself.

Extensions-> Bracket Pair Colorizer 2->Install

Extensions-> HTML Snippets ->Install

Extensions-> Prettier - Code formatter ->Install

- Prettier will automatically adjust the space so that we can easily read our code.

==========

Live Server in VSCode:

- Suppose we are writing hello it is not showing in browser every time we have to reload it.

- In Live Server it will automatically appears without reloading the browser

Extensions-> Live Server ->Install

You will get go live-> Click run Live Server

- It automatically gets open in port 5500 it is running on localhost.

  http://127.0.0.1:5500/index.html

  http://localhost:5500/index.html

- It is like a domain name which changes to ip address.

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
    <h2>Hello How are you</h2>
    <p>I'm Fine</p>
    </body>
</html>
```

o/p:

====

Hello How are you

I'm Fine

==========

Formatting Tags:

- Does some styling to the text. Actually, CSS is used for styling. But we can use some tags for formatting and styling text in HTML.

- **<b>** - Bold

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
        This is a Text
    <b>This is a Bold Text</b>
    </body>
</html>
```

o/p:

====

This is a Text **This is a Bold Text**

- It is on the same line- Inline tags or Inline elements.

- There are 2 types of tags
  1. Block tags or Block elements - <p>, <h1>, <address>
  2. Inline tags or Inline elements - <b>

- In Block elements whatever we write before or after the tag it shifts to new line but Inline tags or Inline elements it always in the same line

---

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
        This is a Text
    <h1>This is a H1 Tag</h1>
    </body>
</html>
```

o/p:

====

This is a Text

This is a H1 Tag

- <h1> tag automatically came in new line because <h1> is Block level element. It always takes block of area.

  1. Block elements - It always takes block of area
  2. Inline elements - Always in same line

- Adding styles to know block level element. It takes whole line as block.

- Inline elements takes the space whatever written in text only.

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
        This is a Text
    <h1 style ="border: 1px solid" >This is a H1 Tag</h1>
    <b>This is a Bold Text</b>
    </body>
</html>
```

o/p:

====

This is a Text

This is a H1 Tag

This is a Bold Text

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
        This is a Text
    <h1 style ="border: 1px solid" >This is a H1 Tag</h1>
    <b style ="border: 1px solid" >This is a Bold Text</b>
    </body>
</html>
```

o/p:

====

This is a Text

This is a H1 Tag

This is a Bold Text

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
        This is a Text
    <h1 style ="border: 1px solid" >This is a H1 Tag</h1>
    <p style ="border: 1px solid" >This is a Paragraph Tag</p>
    <b style ="border: 1px solid" >This is a Bold Text</b>
    </body>
</html>
```

o/p:

====

This is a Text

This is a H1 Tag

This is a Paragraph Tag

This is a Bold Text

Formatting:

- **<b>** - Bold text
- **<i>** - italics text
- **** - Emphasis text
- The difference b/w <i> and they look same but is more important
- **<mark>** - Highlight, mark text
- **<small>** - Small text - It is smaller than the normal text
- **<ins>** - Inserted text - Underlines the text in the articles

- **<u>** - Unarticulated text - Same as <ins> but <u> is for unarticulated like suppose the text is misspelt, spelling mistake, don't know the spelling

- **<code>** - To write some code like var a=5

- **<var>** - Variable tag - Maths formulas

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
        This is a normal Text <br/>
    <b>This is a Bold Text</b> <br/>
    <i>This is a Italics Text</i> <br/>
    <em>This is a emphasis Text</em> <br/>
    <mark>This is a mark Text</mark> <br/>
    <small>This is a small Text</small> <br/>
    <ins>This is a inserted Text</ins> <br/>
    <u>This is a unarticulated Text</u> <br/>
    <code>Var a= "Some String"</code> <br/>
    <var>a2+b2=2ab</var> <br/>
    </body>
</html>
```

o/p:

====

is a normal Text

This is a Bold Text

This is a Italics Text

This is a emphasis Text

This is a mark Text

This is a small Text

This is a inserted Text

This is a unarticulated Text

`Var a= "Some String"`

a2+b2=2ab

==========

Article in HTML:

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <h1>Python</h1>
        <p> <i>Python</i> is a <b>high-level</b> programming langauage.<br/>
It is mostly used because of its <mark>scripting</mark> nature.
            Python supports modules & Packages. Declaring a variable in python
is like this <br/>
            <b><code>   str ="This is a string"</code></b>
        </p>
    </body>
</html>
```

o/p:

====

Python

Python is a **high-level** programming language.
It is mostly used because of its scripting nature. Python supports modules & Packages. Declaring a variable in python is like this

```
   str ="This is a string"
```

Time Address tag:

```
<!DOCTYPE html>

<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
        The party is at <time>10:00 AM</time> and place for the party is
<address style ="border: 1px solid">Manhattan, NY, U.S.A</address>
    </body>
</html>
```

o/p:

===

The party is at 10:00 AM and place for the party is
Manhattan, NY, U.S.A

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
        The party is at <time>10:00 AM</time>
        and place for the party is
        <address>PinCode - 22602</address>
        <address>Manhattan</address>
        <address>New York</address>
        <address>U.S.A</address>
    </body>
</html>
```

o/p:

===
The party is at 10:00 AM and place for the party is
PinCode - 22602
Manhattan
New York
U.S.A

User searches as at what time is party and what's the address in SEO

Quote & Cite:

- **<q>** - quote tag - double quotes
- **<q cite = "link">…….</q>**
- **<blockquote>** - leaves some pixels at starting and ending
- **<cite>** - title of the work, author
- **<dfn>** - definition tag – to write definition of a word
- **<abbr>** - abbreviation tag – full forms on pointing cursor

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
```

```
    </head>
    <body>
        <q>Here is some quote</q>
    </body>
</html>
```

o/p:

===

“Here is some quote”

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
        <q>Here is some quote</q> Here is some quote
    </body>
</html>
```

o/p:

===

“Here is some quote” Here is some quote

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
        <q cite="www.quote.com">Here is some quote</q>
        <blockquote>Some special quote</blockquote>
    </body>
</html>
```

o/p:

===

“Here is some quote”

Some special quote

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
        <q cite="www.quote.com">Here is some quote</q>
        <blockquote style="border: 1px solid">Some special quote</blockquote>
    </body>
</html>
```

o/p:

===

“Here is some quote”

> Some special quote

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
        <q cite="www.quote.com">Here is some quote</q>
        <blockquote style="border: 1px solid">
            Some special quote. It makes your quote much more meaningful
        </blockquote>
    </body>
</html>
```

o/p:

===

“Here is some quote”

> Some special quote. It makes your quote much more meaningful

---

```
<!DOCTYPE html>
<html>
```

```
    <head>
 <title>My Page</title>
    </head>
    <body>
        <q cite="www.quote.com">Here is some quote</q>
        <blockquote>
            Some special quote. It makes your quote much more meaningful
        </blockquote>
    </body>
</html>
```

o/p:

===

“Here is some quote”

Some special quote. It makes your quote much more meaningful

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
        <q cite="www.quote.com">Here is some quote</q>
        <blockquote>
            Some special quote. It makes your quote much more meaningful
        </blockquote>
        <cite>Albert Einstein</cite>
    </body>
</html>
```

o/p:

===

“Here is some quote”

Some special quote. It makes your quote much more meaningful

Albert Einstein

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
        <q cite="www.quote.com">Here is some quote</q>
```

```
        <blockquote>
            Some special quote. It makes your quote much more meaningful
        </blockquote>
        <cite>Albert Einstein</cite>
        <h2>Python</h2>
        <dfn>Python is a scripting and high-level programming language</dfn>
     </body>
</html>
```

o/p:

===

“Here is some quote”

Some special quote. It makes your quote much more meaningful

Albert Einstein

Python

Python is a scripting and high-level programming language

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
        <q cite="www.quote.com">Here is some quote</q>
        <blockquote>
            Some special quote. It makes your quote much more meaningful
        </blockquote>
        <cite>Albert Einstein</cite>
        <h2>Python</h2>
        <dfn>Python is a scripting and high-level programming language</dfn>
        <br/>
        <abbr title="World Health Organisation">WHO</abbr> was founded in 1948
    </body>
</html>
```

o/p:

===

Here is some quote

Some special quote. It makes your quote much more meaningful

Albert Einstein

Python

Python is a scripting and high-level programming language
WHO was founded in 1948

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
        <q cite="www.quote.com">Here is some quote</q>
        <blockquote>
            Some special quote. It makes your quote much more meaningful
        </blockquote>
        <cite>Albert Einstein</cite>
        <h2>Python</h2>
        <dfn>Python is a scripting and high-level programming language</dfn>
        <br/>
        <abbr title="World Health Organisation">WHO</abbr> was founded in 1948
        <br/>
        <abbr title="Hyper Text Markup Language">HTML</abbr> was founded in
1948
    </body>
</html>
```

o/p:

===

“Here is some quote”

Some special quote. It makes your quote much more meaningful

Albert Einstein

Python

Python is a scripting and high-level programming language
WHO was founded in 1948
HTML was founded in 1948

Strike:

- **<s>** - strike tag - to cut it text – no longer correct.
- **<strike>** - It will work but not supported in HTML5, but browser will show – red colour in text

<del> - deleted text

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
        <s>No longer correct</s>
    </body>
</html>
```

o/p:

===

~~No longer correct~~

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
        This text is not correct = <s>No longer correct</s> <br/>
        <strike>Normal Strike</strike>
    </body>
</html>
```

o/p:

===

This text is not correct = ~~No longer correct~~
~~Normal Strike~~

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
```

```
    <body>
        This text is not correct = <s>No longer correct</s> <br/>
        <strike>Normal Strike</strike><br/>
        This is a <del>Deleted Text</del>

    </body>
</html>
```

o/p:

===

This text is not correct = ~~No longer correct~~
~~Normal Strike~~
This is a ~~Deleted Text~~

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
        This text is not correct = <s>No longer correct</s> <br/>
        <strike>Normal Strike</strike><br/>
        This is a<del>Deleted Text</del><br/>
        Party at <s>10:00 AM</s>
    </body>
</html>
```

o/p:

===

This text is not correct = ~~No longer correct~~
~~Normal Strike~~
This is a ~~Deleted Text~~
Party at ~~10:00 AM~~

Progress Bar:

- It is mainly used in Java script, can't controlled with HTML like uploading an image, processing something

- Attributes - Properties in HTML - values

- **<progress>** - % - Blue colour bar – Most used

- **<meter>** - it is like value like - 2/10 - Green colour bar

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
        <progress></progress>
    </body>
</html>
```

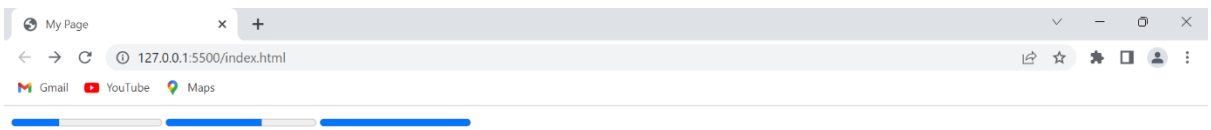
o/p:

===

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
        <progress value="32" max="100"></progress>
        <progress value="32" max="50">32%</progress>
        <progress value="50" max="50">100%</progress>
    </body>
</html>
```

o/p:

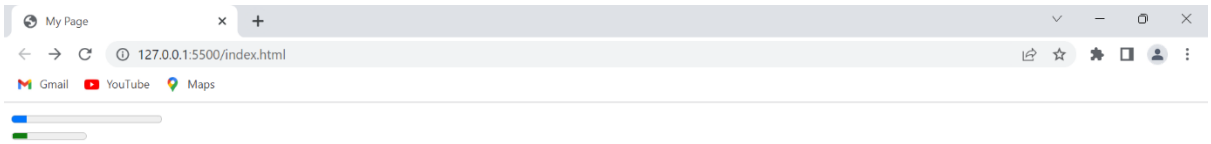
===



```html
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
        <progress value="50" max="500">10%</progress>
        <br/>
        <meter value="2" max="10" min="0"></meter>
    </body>
</html>
```

o/p

===

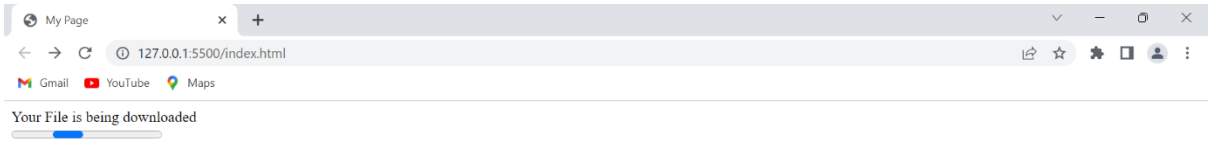


File is being downloaded

```html
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
        Your File is being downloaded<br/>
        <progress></progress>
    </body>
</html>
```

o/p:

===



Slowly by keep on downloading with the help of Java script we can keep the value

```html
<!DOCTYPE html>
```

```
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
        Your File is being downloaded<br/>
        <progress value="10" max="100"></progress>
    </body>
</html>
```

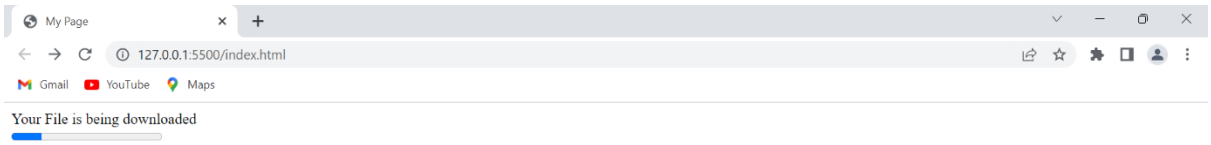
o/p:

===

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
        Your File is being downloaded<br/>
        <progress value="20" max="100"></progress>
    </body>
</html>
```

o/p:

===

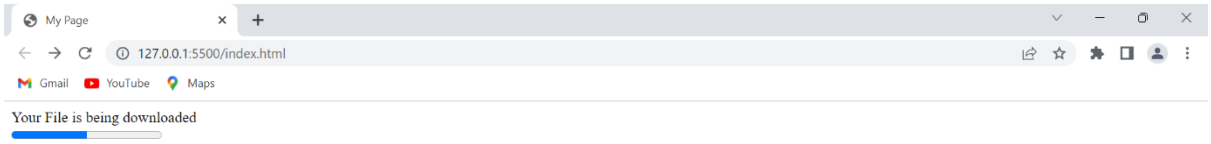


```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
```

```
        Your File is being downloaded<br/>
        <progress value="50" max="100"></progress>
    </body>
</html>
```

o/p:

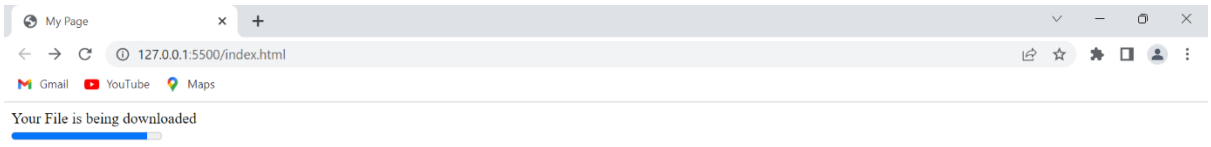
===



```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
        Your File is being downloaded<br/>
        <progress value="90" max="100"></progress>
    </body>
</html>
```

o/p:

===

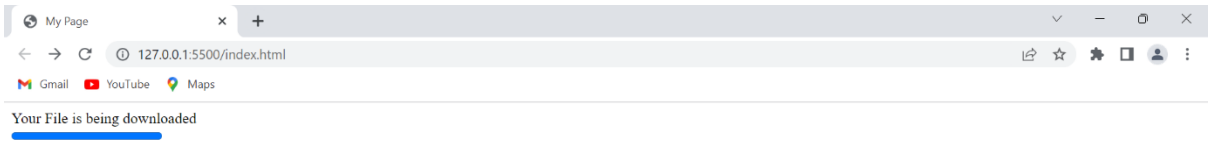


Fully downloaded

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
        Your File is being downloaded<br/>
        <progress value="100" max="100"></progress>
    </body>
</html>
```

o/p:

===



Anchor Tag:

- **<a href>** - Anchor tag Hyper reference.
- If we are frontend frameworks like REACT, we use REACT ROUTERS instead of anchor tag.
- Anchor tag is used for rough HTML and when you render from client-side.

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
    <a href="http://google.com">Go to Google</a>
    </body>
</html>
```

o/p:

===

Go to Google

- Firstly, it will open blank tab then it will go to the website. Stuck only for a second in blank page.

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
    <a href="https://google.com">Google</a><br/>
    <a href="https://google.com" target="_blank">New Tab</a>
```

```
    </body>
</html>
```

o/p:

===

Google
New Tab

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
    <a href="https://google.com">Google</a><br/>
    <a href="https://google.com" target="_blank">New Tab</a><br/>
    <a href="aboutus.html">About Page</a>
    </body>
</html>
```

aboutus.html

```
<html>
    <head>
        <title>About Page</title>
    </head>
    <body>
        It is a about page
    </body>
</html>
```

We have another file in same directory **aboutus.html**

o/p:

===

Google
New Tab
About Page

It is a about page

```
<!DOCTYPE html>
```

```
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
    <a href="https://google.com">Google</a><br/>
    <a href="https://google.com" target="_blank">New Tab</a><br/>
    <a href="aboutus.html">About Page</a>
    </body>
</html>
```

```
<html>
    <head>
        <title>About Page</title>
    </head>
    <body>
        It is a about page
        <a href="index.html">Home Page</a>
    </body>
</html>
```

o/p:

===

Google
New Tab
About Page

It is a about page Home Page

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
    <a href="https://google.com">Google</a><br/>
    <a href="https://google.com" target="_blank">New Tab</a><br/>
    <a href="aboutus.html">About Page</a><br/>
    <a href="mailto:himabindu.2002k@gmail.com">Mail Me!</a>
    </body>
</html>
```

o/p:

===

Google
New Tab
About Page
Mail Me!

- **mailto** - to send mail.
- **tel** - call.
- **download** - image will be downloaded.
- **ping** - track the websites opened, like someone coming to our website going to google. A person is coming to our website, where he / she is going on to which website. It's about getting the info, checking the user stats
- Whenever a person clicks Google, a request will also be sent to the link so the backend server will know.

```
<!DOCTYPE html>
<html>
    <head>
 <title>My Page</title>
    </head>
    <body>
    <a href="https://google.com">Google</a><br/>
    <a href="https://google.com" target="_blank">New Tab</a><br/>
    <a href="aboutus.html">About Page</a><br/>
    <a href="mailto:himabindu.2002k@gmail.com">Mail Me!</a><br/>
    <a href="tel:8686784664">Call Me!</a><br/>
    <a href="bird.png" download>Download Image</a><br/>
    <a href="https://google.com" ping="https://myapi.com">Google</a><br/>
    </body>
</html>
```

o/p:

===

Google
New Tab
About Page
Mail Me!

Call Me!
Download Image
Google

By clicking on Read more... it will be redirected to google website

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
    There was a man and he fell down because
    <a href="https://google.com">Read more...</a><br/>
    </body>
</html>
```

o/p:

===

There was a man and he fell down because Read more...

Image Tag:

- Embed image into brower
- **<img/>** - Self closing tag
- **** - Source where the image is present - It shows null there wasn’t any image which can be shown.
- There was an image bird.png. The bird appears but it will be very big. But adjusting height and width in pixels it will be visible much better.
- Height and width are actually done in CSS but some are pre- defined in HTML.

alt is alternative of image. Suppose image is not found or misspelt the name or image got deleted from the computer. Instead of showing nothing it will the text present in alt. So, that user will know there was an image which can’t be shown due to technicality error but there was an image. The image was bird sitting on a branch and it also helps in SEO.

- SEO will search for bird image, if I search for bird sitting on branch. So, my image will show it on top.

- If we remove “alt” nothing appears only blank box with height and width.
- Suppose image is somewhere on internet we want use the image directly in my HTML without downloading it.
- Go to image on internet ➡ Copy image address ➡Paste on browser tab ➡Click enter image appears.
- Every image which is shown we can access but we should have url.
- If we keep url in image . We get image.
- If we insert some symbol in url we don’t get images only “alt” text is visible.
- Suppose we want to give description about Car we give longdesc=”description text in detail”. But it not used.
- loading - we will know in node js. How network works and all. Suppose we have 100 images on our browser if we keep on browsing it keep us calling so it will load the image only if you keep on loading up to that index.

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <img src="xyz"/>
    </body>
</html>
```

o/p:

===

```
<!DOCTYPE html>
<html>
    <head>
```

```
        <title>My Page</title>
    </head>
    <body>
        <img src="bird.png" height="400" width="500"/>
    </body>
</html>
```

o/p:

===

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <img src="bird.png" height="400" width="500" alt="Bird sitting on
branch"/>
    </body>
</html>
```

o/p:

===

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <img src="bird1.png" height="400" width="500" alt="Bird sitting on
branch"/>
    </body>
</html>
```

o/p:

===

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <img src="https://static.autox.com/uploads/2020/12/maruti-suzuki-
swift.jpg"
        height="300"
        width="500"
        alt="A Car"/>
    </body>
</html>
```

o/p:

===

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <img src="https://static.autox.com/uploads/2020/12/maruti-suzuki-
swift.jpg"
        height="300"
        width="500"
        alt="A Car"
        longdesc="There is a car of Swift. Available for sale"
        />
    </body>
</html>
```

o/p:

===

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
```

```
        <img src="https://static.autox.com=/uploads/2020/12/maruti-suzuki-
swift.jpg"
        height="300"
        width="500"
        alt="A Car"/>
    </body>
</html>
```

o/p:

===

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <img src="https://static.autox.com/uploads/2020/12/maruti-suzuki-
swift.jpg"
        height="300"
        width="500"
        alt="A Car"
        longdesc="There is a car of Swift. Available for sale"
        />
    </body>
</html>
```

o/p:

===

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <img src="https://static.autox.com/uploads/2020/12/maruti-suzuki-
swift.jpg"
        height="300"
        width="500"
        alt="A Car"
        longdesc="There is a car of Swift. Available for sale"
        loading="lazy"
        />
    </body>
</html>
```

o/p:

===

Table Tag:

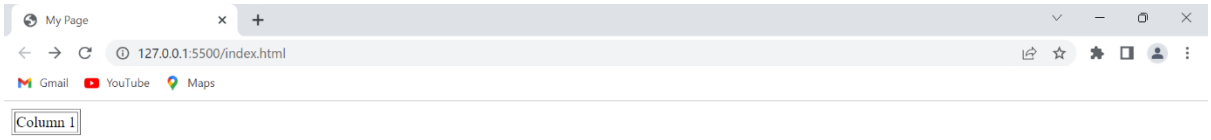
- **<table>……</table>** - Table tag is used to create Tables.
- Table has Rows and columns.
- Horizontal lines - Rows, Vertical lines - Columns
- **<tr>** - Table row
- **<td>** - Table data, cell

- **<th>** - Table heading
- **<caption>** - To tell something about the table we use caption, similar to <p> tag.
- **<thead>** - All the heading part is written, but it will not show in the browser.
- **<tbody>** - All the body part is written, but it will not show in the browser.
- **<table border=”1”>…….</table>** - Border should not be used inn HTML5.

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <table border="1">
            <tr>
                <td>Column 1</td>
            </tr>
        </table>
    </body>
</html>
```

o/p:

====



```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <table border="1">
            <tr>
                <td>Column 1</td>
                <td>Column 2</td>
            </tr>
        </table>
    </body>
</html>
```

o/p:

====

Column 1	Column 2

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <table border="1">
            <tr>
                <td>Column 1</td>
                <td>Column 2</td>
            </tr><tr>
                <td>Column 1</td>
                <td>Column 2</td>
            </tr>
            <tr>
                <td>Column 1</td>
                <td>Column 2</td>
            </tr>
            <tr>
                <td>Column 1</td>
                <td>Column 2</td>
            </tr>
        </table>
    </body>
</html>
```

o/p:

===

Column 1	Column 2
Column 1	Column 2
Column 1	Column 2
Column 1	Column 2

```
<!DOCTYPE html>
<html>
```

```
    <head>
        <title>My Page</title>
    </head>
    <body>
        <table border="1">
            <tr>
                <th>Country</th>
                <th>Capital</th>
            </tr>
            <tr>
                <td>USA</td>
                <td>Washington</td>
            </tr>
            <tr>
                <td>India</td>
                <td>New Delhi</td>
            </tr>
            <tr>
                <td>Russia</td>
                <td>Moscow</td>
            </tr>
            <tr>
                <td>China</td>
                <td>Beijing</td>
            </tr>
        </table>
    </body>
</html>
```

o/p:

===

Country	Capital
USA	Washington
India	New Delhi
Russia	Moscow
China	Beijing

```
<!DOCTYPE html>
<html>
    <head>
```

```
        <title>My Page</title>
    </head>
    <body>
        <table border="1">
            <tr>
                <th>Country</th>
                <th>Capital</th>
                <th>Language</th>
            </tr>
            <tr>
                <td>USA</td>
                <td>Washington</td>
                <td>English</td>
            </tr>
            <tr>
                <td>India</td>
                <td>New Delhi</td>
                <td>Hindi</td>
            </tr>
            <tr>
                <td>Russia</td>
                <td>Moscow</td>
                <td>Russian</td>
            </tr>
            <tr>
                <td>China</td>
                <td>Beijing</td>
                <td>Chinese</td>
            </tr>
        </table>
    </body>
</html>
```

o/p:

===

Country	Capital	Language
USA	Washington	English
India	New Delhi	Hindi
Russia	Moscow	Russian
China	Beijing	Chinese

```
<!DOCTYPE html>
```

```
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <table border="1">
            <caption>Countries and Capital and Language</caption>
            <tr>
                <th>Country</th>
                <th>Capital</th>
                <th>Language</th>
            </tr>
            <tr>
                <td>USA</td>
                <td>Washington</td>
                <td>English</td>
            </tr>
            <tr>
                <td>India</td>
                <td>New Delhi</td>
                <td>Hindi</td>
            </tr>
            <tr>
                <td>Russia</td>
                <td>Moscow</td>
                <td>Russian</td>
            </tr>
            <tr>
                <td>China</td>
                <td>Beijing</td>
                <td>Chinese</td>
            </tr>
        </table>
    </body>
</html>
```

o/p:

===

Countries and Capital and Language

Country	Capital	Language
USA	Washington	English
India	New Delhi	Hindi
Russia	Moscow	Russian

China	Beijing	Chinese

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <table border="1">
            <caption>Countries and Capital and Language</caption>
            <thead>
                <tr>
                    <th>Country</th>
                    <th>Capital</th>
                    <th>Language</th>
                </tr>
            </thead>
            <tbody>
                <tr>
                    <td>USA</td>
                    <td>Washington</td>
                    <td>English</td>
                </tr>
                <tr>
                    <td>India</td>
                    <td>New Delhi</td>
                    <td>Hindi</td>
                </tr>
                <tr>
                    <td>Russia</td>
                    <td>Moscow</td>
                    <td>Russian</td>
                </tr>
                <tr>
                    <td>China</td>
                    <td>Beijing</td>
                    <td>Chinese</td>
                </tr>
            </tbody>
        </table>
    </body>
</html>
```

o/p:

===

Countries and Capital and Language

Country	Capital	Language
USA	Washington	English
India	New Delhi	Hindi
Russia	Moscow	Russian
China	Beijing	Chinese

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <table border="1">
            <caption>Countries and Capital and Language</caption>
            <thead>
                <tr>
                    <th>Country</th>
                    <th>Capital</th>
                </tr>
            </thead>
            <tbody>
                <tr>
                    <td colspan="2">USA</td>
                    <td rowspan="2">Washington</td>
                </tr>
                <tr>
                    <td>India</td>
                    <td>New Delhi</td>
                </tr>
            </tbody>
        </table>
    </body>
</html>
```

o/p:

===

Countries and Capital and Language		
Country	**Capital**	
USA		Washington
India	New Delhi	

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <table border="1">
        <thead>
            <tr>
                <th>Item</th>
                <th>Price</th>
            </tr>
        </thead>
        <tbody>
            <tr>
                <td>Biscuits</td>
                <td>10</td>
            </tr>
            <tr>
                <td>Chocolate</td>
                <td>100</td>
            </tr>
        </tbody>
        </table>
    </body>
</html>
```

o/p:

===

Item	Price
Biscuits	10
Chocolate	100

```
<table border="5">
```

Item	Price
Biscuits	10
Chocolate	100

List:

- There are 3 types of list

    1. Ordered list - It is in order -
    2. Unordered list - It is not in order -
    3. Description list - It is more about briefing - <dl>

- <ol type=”A”>
    list of items

  Then the list will be in Capital alphabets

- <ol type=”a”>
    list of items

  Then the list will be in small alphabets

- <ol type=”I”>
    list of items

  Then the list will be in Roman numbers

- <ol type=”i”>
    list of items

  Then the list will be in Small Roman numbers

- <ol type=”1”>
    list of items

  Then the list will be in Numbers

- <ol start=”20”>

list of items

Then the list will start from 20

- <ol reversed>
  list of items

  Then the list will be in Reverse order like ….,5,4,3,2,1.

-
  list of items

- <dl>

  <dt>Word</dt>
  <dd>Word description or explantion</dd>

  </dl>

1. **Ordered list:**
   ==========

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <p>Breakfast Menu</p>
        <ol type="1">
            <li>Milk</li>
            <li>Bread</li>
            <li>Cheese</li>
            <li>Juice</li>
            <li>Eggs</li>
        </ol>
    </body>
</html>
```

o/p:

===

Breakfast Menu

1. Milk
2. Bread
3. Cheese
4. Juice
5. Eggs

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <p>Breakfast Menu</p>
        <ol type="i">
            <li>Milk</li>
            <li>Bread</li>
            <li>Cheese</li>
            <li>Juice</li>
            <li>Eggs</li>
        </ol>
    </body>
</html>
```

o/p:

===

Breakfast Menu

i. Milk
ii. Bread
iii. Cheese
iv. Juice
v. Eggs

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
```

```
    </head>
    <body>
        <p>Breakfast Menu</p>
        <ol type="I">
            <li>Milk</li>
            <li>Bread</li>
            <li>Cheese</li>
            <li>Juice</li>
            <li>Eggs</li>
        </ol>
    </body>
</html>
```

o/p:

===

Breakfast Menu

I. Milk
II. Bread
III. Cheese
IV. Juice
V. Eggs

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <p>Breakfast Menu</p>
        <ol type="A">
            <li>Milk</li>
            <li>Bread</li>
            <li>Cheese</li>
            <li>Juice</li>
            <li>Eggs</li>
        </ol>
    </body>
</html>
```

o/p:

===

Breakfast Menu

A. Milk
B. Bread
C. Cheese
D. Juice
E. Eggs

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <p>Breakfast Menu</p>
        <ol type="a">
            <li>Milk</li>
            <li>Bread</li>
            <li>Cheese</li>
            <li>Juice</li>
            <li>Eggs</li>
        </ol>
    </body>
</html>
```

o/p:

===

Breakfast Menu

a. Milk
b. Bread
c. Cheese
d. Juice
e. Eggs

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
```

```
        <p>Breakfast Menu</p>
        <ol start="50">
            <li>Milk</li>
            <li>Bread</li>
            <li>Cheese</li>
            <li>Juice</li>
            <li>Eggs</li>
        </ol>
    </body>
</html>
```

o/p:

===

Breakfast Menu

50. Milk
51. Bread
52. Cheese
53. Juice
54. Eggs

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <p>Breakfast Menu</p>
        <ol reversed>
            <li>Milk</li>
            <li>Bread</li>
            <li>Cheese</li>
            <li>Juice</li>
            <li>Eggs</li>
        </ol>
    </body>
</html>
```

o/p:

===

Breakfast Menu

1. Milk
2. Bread
3. Cheese
4. Juice
5. Eggs

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <p>Breakfast Menu</p>
        <ol>
            <li>Milk</li>
            <li>Bread</li>
            <li>Cheese</li>
            <li>Juice</li>
            <li>Eggs
                <ol type="I">
                    <li>Half Boiled</li>
                    <li>Full Boiled</li>
                </ol>
            </li>
        </ol>
    </body>
</html>
```

o/p:

===

Breakfast Menu

1. Milk
2. Bread
3. Cheese
4. Juice
5. Eggs
    I. Half Boiled
    II. Full Boiled

---

2. **Unordered list:**
   ==========

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <p>Breakfast Menu</p>
        <ul>
            <li>Milk</li>
            <li>Bread</li>
            <li>Cheese</li>
            <li>Juice</li>
            <li>Eggs
                <ul>
                    <li>Half Boiled</li>
                    <li>Full Boiled</li>
                </ul>
            </li>
        </ul>
    </body>
</html>
```

o/p:

===

Breakfast Menu

- Milk
- Bread
- Cheese
- Juice
- Eggs
    - Half Boiled
    - Full Boiled

---

3. **Description list:**

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <p>Breakfast Menu</p>
```

```
        <dl>
            <ol>
                <li>
                    <dt>Milk</dt>
                    <dd>Milk is from Cow</dd>
                </li>
                <li>
                    <dt>Bread</dt>
                    <dd>We only offer brown bread</dd>
                </li>
                <li>
                    <dt>Cheese</dt>
                    <dd>Cheese is from Farm</dd>
                </li>
                <li>
                    <dt>Eggs</dt>
                    <dd>Eggs are from Hen</dd>
                </li>
            </ol>
        </dl>
    </body>
</html>
```

o/p:

===

Breakfast Menu

1. Milk
   Milk is from Cow
2. Bread
   We only offer brown bread
3. Cheese
   Cheese is from Farm
4. Eggs
   Eggs are from Hen

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <p>Breakfast Menu</p>
```

```
        <dl>
            <ol type="A">
                <li>
                    <dt>Milk</dt>
                    <dd>Milk is from Cow</dd>
                </li>
                <li>
                    <dt>Bread</dt>
                    <dd>We only offer brown bread</dd>
                </li>
                <li>
                    <dt>Cheese</dt>
                    <dd>Cheese is from Farm</dd>
                </li>
                <li>
                    <dt>Eggs</dt>
                    <dd>Eggs are from Hen</dd>
                </li>
            </ol>
        </dl>
    </body>
</html>
```

o/p:

===

Breakfast Menu

A. Milk
   Milk is from Cow
B. Bread
   We only offer brown bread
C. Cheese
   Cheese is from Farm
D. Eggs
   Eggs are from Hen

Tags:

====

- **<input/>** - Self closing tag.
- **input type="text"** - To write in text like alphabets.
- **autofocus** - We can automatically keep on writing.

- **placeholder** - What you want from the user, it automatically disappears, it is light weight text, print text which is in page not in real.

- **value** - Some by default. Whenever you open the page, it will already be written.

- **readonly** - We can't edit it.

- **required** - Suppose you are submitting a form you haven't filled the name required. If we put required then the input should be filled anyhow.

- **input type="button" value="submit"** - We can click button.

- **input type="checkbox"** - Choose multiple options.

- **input type="color"** - choosing colors.

- **input type ="date"** - It takes date.

- **input type="date"** hidden - date will be there but hided, not visible and clickable but present in code.

  <input type="date" hidden/>

- **input type ="datetime"** - more like text.

- **input type ="datetime-local"** - It takes date and time both.

- **input type ="week"** - It shows the number of the week in the year.

- **input type="email"** - It is used for entering email should include @

- **input type="file"** - To choose the file-only one.

- **input type="file multiple"** - To choose the more than one file.

- **input type="image" alt=Image src="bird.png"** - For image but not used.

- **input type="month"** - To choose month.

- **input type="number"** - We can write only numbers if we type any letter we can press the letter but it don't take.

- **input type="password"** - We can write password, login, sign out. The text we enter will be shown in dots, and we can name the tag like phone number, password.

- **input type="radio"** - To select any one of the two.

- **input type=”range”** - To select the range.
- **input type=”reset”** - When we are inside a form whatever the text we filled it will automatically get deleted.
- **input type=”search”** - To search but we use more in Java script.
- **input type=”submit”** - To submit the form.
- **input type=”tel”** - To enter the telephone number like +91 984……
- **input type=”tel” diabled** - We can’t write but box will be present in the form.
- **input type=”url”** - To add, put url into form.
- **list=”browsers”** - To choose any one among the browsers.

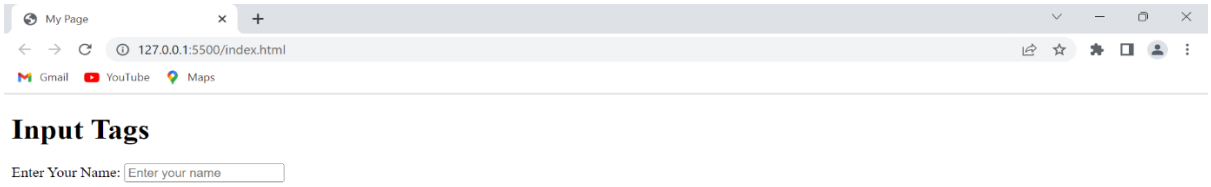
```
        <input list="browsers"/>
        <datalist id="browsers">
            <option value="Firefox"></option>
            <option value="Chrome"></option>
            <option value="Edge"></option>
        </datalist>
```

- **type=”number” min=”1” max=”20”** - When we write 22 it throw error numbers, it should be in between 1 to 20.

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <h1>Input Tags</h1>
        Enter Your Name:
        <input type="text"
        autofocus
        placeholder="Enter your name"
        />
    </body>
</html>
```

o/p:

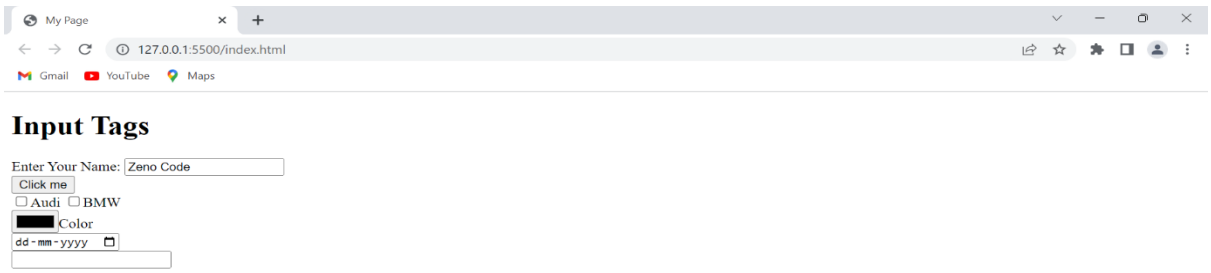
===



```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <h1>Input Tags</h1>
        Enter Your Name:
        <input type="text"
        autofocus
        placeholder="Enter your name"
        value="Zeno Code"
        readonly
        required
        />
        <br/>
        <input type="button" value="Click me"/>
        <br/>
        <input type="checkbox" value="Audi"/>Audi
        <input type="checkbox" value="BMW"/>BMW
        <br/>
        <input type="color"/>Color
        <br/>
        <input type="date"/>
        <br/>
        <input type="datetime"/>
    </body>
</html>
```

o/p:

===

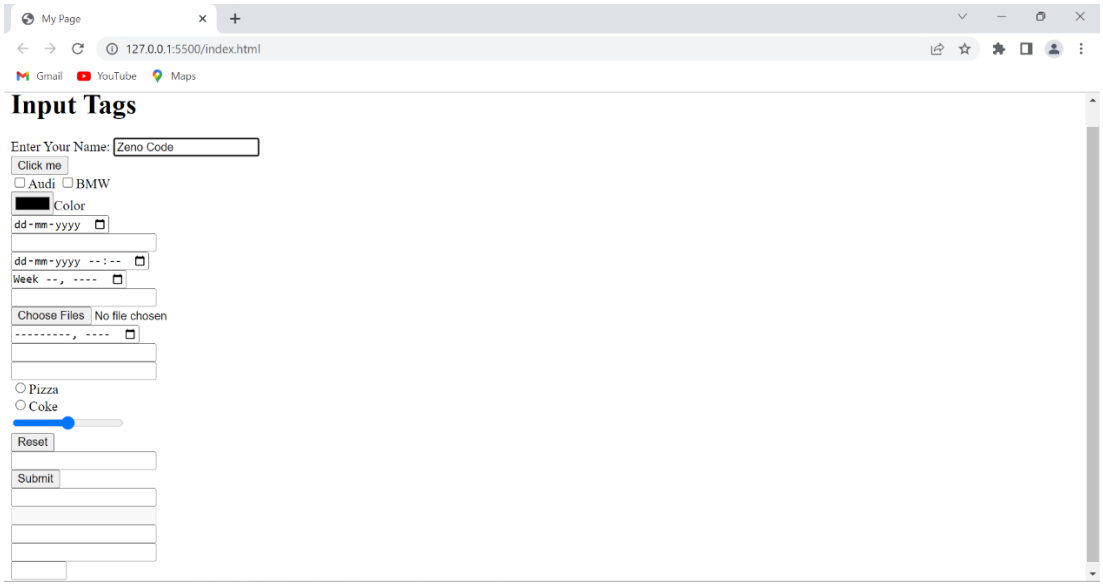


```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <h1>Input Tags</h1>
        Enter Your Name:
        <input type="text"
        autofocus
        placeholder="Enter your name"
        value="Zeno Code"
        readonly
        required
        />
        <br/>
        <input type="button" value="Click me"/>
        <br/>
        <input type="checkbox" value="Audi"/>Audi
        <input type="checkbox" value="BMW"/>BMW
        <br/>
        <input type="color"/>Color
        <br/>
        <input type="date"/>
        <br/>
        <input type="datetime"/>
        <br/>
        <input type="datetime-local"/>
        <br>
        <input type="week"/>
        <br/>
        <input type="email"/>
        <br/>
        <input type="file" multiple />
        <br/>
        <input type="month"/>
        <br/>
        <input type="number" name="phone_number"/>
        <br/>
        <input type="password" name="password"/>
        <br/>
        <input type="radio"/>Pizza
        <br/>
        <input type="radio"/>Coke
        <br/>
        <input type="range"/>
```

```
        <br/>
        <input type="reset"/>
        <br/>
        <input type="search"/>
        <br/>
        <input type="submit"/>
        <br/>
        <input type="tel"/>
        <br/>
        <input type="tel" disabled/>
        <br/>
        <input type="url"/>
        <br/>
        <input list="browsers"/>
        <datalist id="browsers">
            <option value="Firefox"></option>
            <option value="Chrome"></option>
            <option value="Edge"></option>
        </datalist>
        <br/>
        <input type="number" min="1" max="20" />
        <br/>
    </body>
</html>
```

o/p:

===



Forms:

- **action** - The form which we submitted the data will go here. It is much used when we use backend like Java, Java script. Nowadays, we use Java Script to send and receive data from the forms.
- **label** - To tell what these tag means like name. It is unique for every tag what the tag means like value it holds.
- Generally, we make it much meaningful.
- **input type="submit"** - Submit button will appear.
- There are different methods like GET, PUT, POST, PATCH, DELETE. We use these methods in api's.
- **GET** - Sending and getting the data.
- If there is any form like google sign up then it a POST, because we are posting the data.
- POST method encrypts the data, we can't see the data easily.
- **input type="reset"** - The data will become empty, which we have entered.
- **required** - It is mandatory to fill that field, if now filled it shows please fill out the field.
- **enctype="multipart/form-data"** - If we multipart/form-data then only we can send the file.
- To select from drop - down

```
<select>
    <option>……</option>
</select>
```

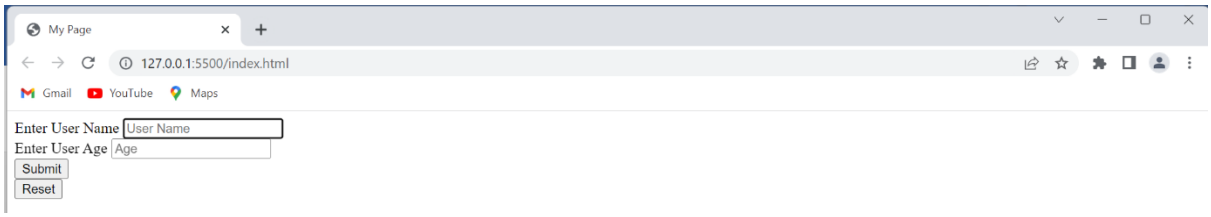
- **fieldset** - It is used for group of input tags like name, age, gender comes. It like a rounding box.
- **legend** - It is used for group of input tags like name, age, gender comes then to name all those under Personal Details.
- **textarea** - To put some address. You can increase or decrease size of the box.

```
<!DOCTYPE html>
<html>
```

```
    <head>
        <title>My Page</title>
    </head>
    <body>
        <form action="data.php">
            <label for="name"> Enter User Name</label>
            <input type="text" placeholder="User Name" name="name"/><br/>
            <label for="name"> Enter User Age</label>
            <input type="number" placeholder="Age" name="age"/><br/>
            <input type="submit"/>
        </form>
    </body>
</html>
```

o/p:

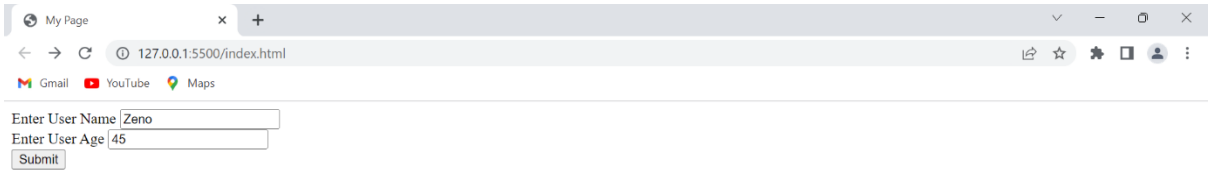
===



```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <form action="data.php" method="GET">
            <label for="name"> Enter User Name</label>
            <input type="text" placeholder="User Name" name="name"/><br/>
            <label for="name"> Enter User Age</label>
            <input type="number" placeholder="Age" name="age"/><br/>
            <input type="submit"/><br/>
        </form>
    </body>
</html>
```

o/p:

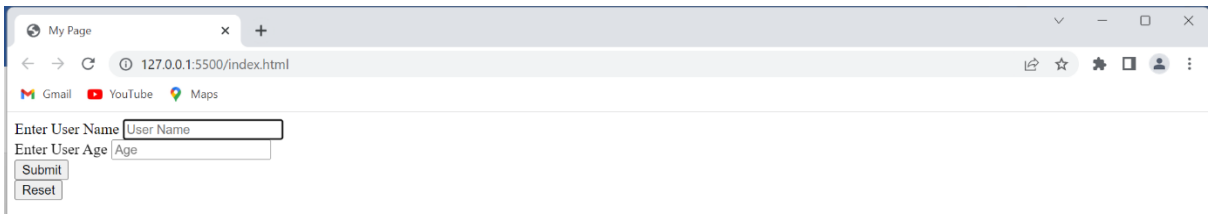
===

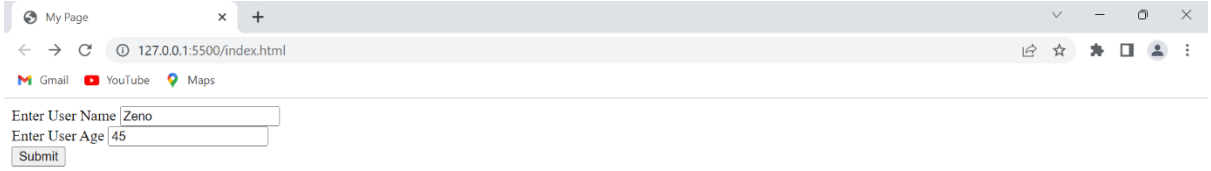


```html
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <form action="data.php" method="POST">
            <label for="name"> Enter User Name</label>
            <input type="text" placeholder="User Name" name="name"/><br/>
            <label for="name"> Enter User Age</label>
            <input type="number" placeholder="Age" name="age"/><br/>
            <input type="submit"/>
        </form>
    </body>
</html>
```

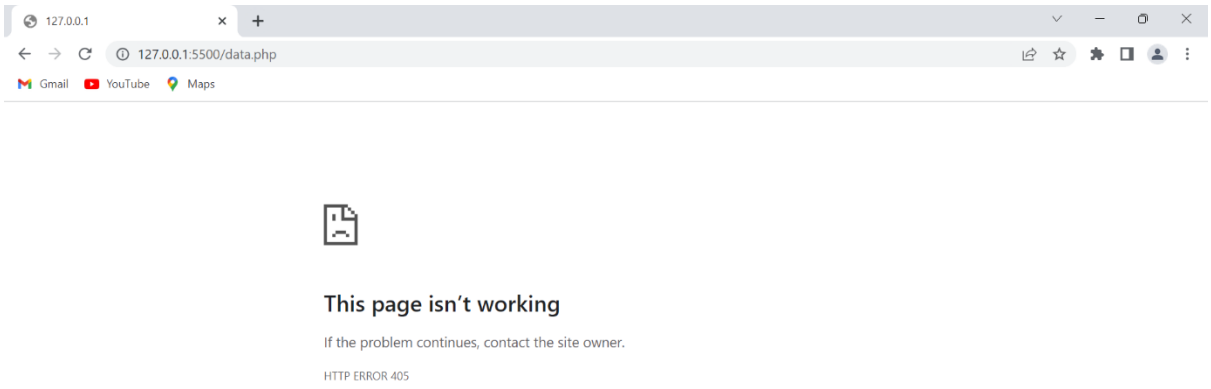
o/p:

===





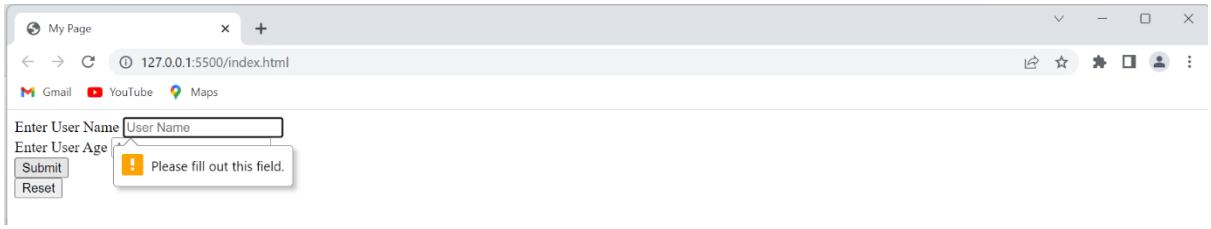
Given data will not be shown in POST it will be encrypted.



```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <form method="POST">
            <label for="name"> Enter User Name</label>
            <input type="text" placeholder="User Name" name="name"
required/><br/>
            <label for="name"> Enter User Age</label>
            <input type="number" placeholder="Age" name="age"/><br/>
            <input type="submit"/><br/>
            <input type="reset"/><br/>
        </form>
    </body>
</html>
```

o/p:

===

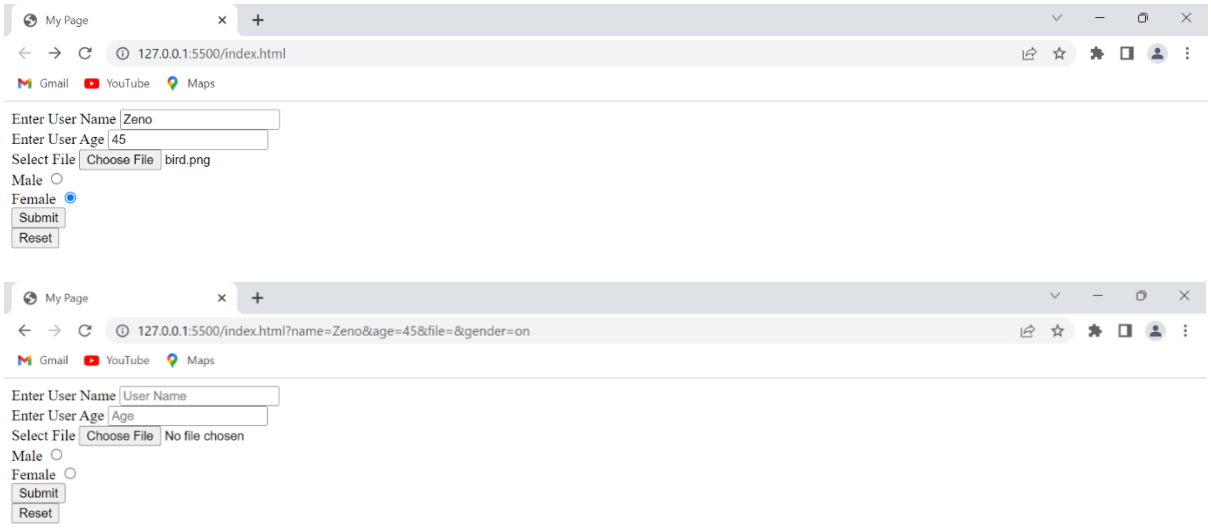


- Here the selected file will not be sent because it is not in multipart.
- If we have input tag same name then we can choose either one of them name=”gender” for male and female.

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
    <form>
        <label for="name"> Enter User Name</label>
        <input type="text" placeholder="User Name" name="name" required/><br/>
        <label for="name"> Enter User Age</label>
        <input type="number" placeholder="Age" name="age"/><br/>
        <label for="file"> Select File</label>
        <input type="file" placeholder="file" name="file"/><br/>
        <label for="male">Male</label>
        <input type="radio" placeholder="Male" name="gender"/><br/>
        <label for="female">Female</label>
        <input type="radio" placeholder="Female" name="gender"/><br/>
        <input type="submit"/><br/>
        <input type="reset"/><br/>
    </form>
    </body>
</html>
```

o/p:

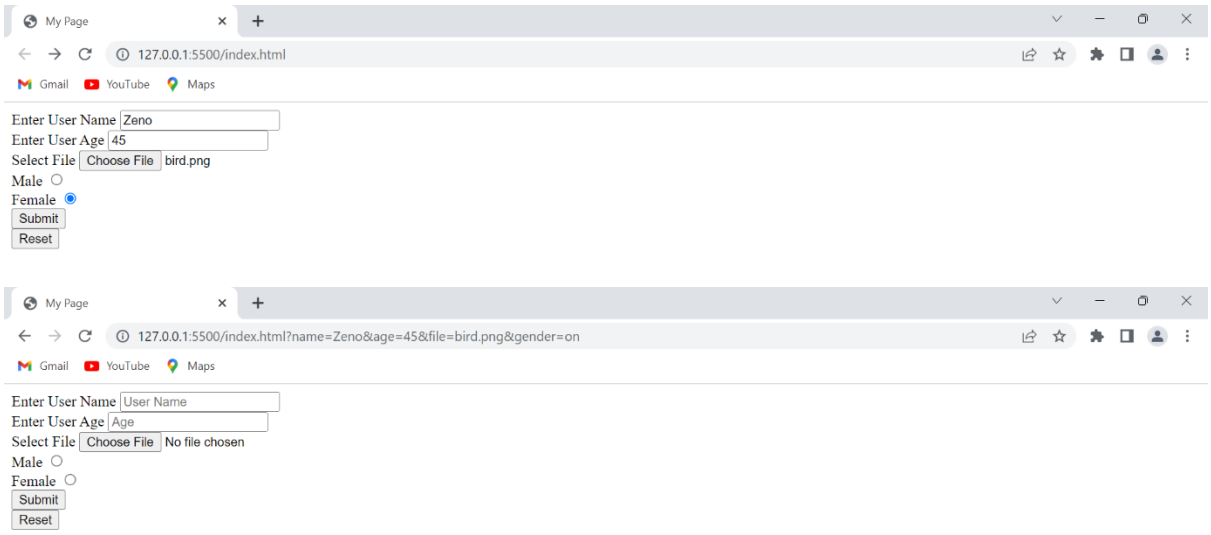
===



```html
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
    <form enctype="multipart/form-data">
        <label for="name"> Enter User Name</label>
        <input type="text" placeholder="User Name" name="name" required/><br/>
        <label for="name"> Enter User Age</label>
        <input type="number" placeholder="Age" name="age"/><br/>
        <label for="file"> Select File</label>
        <input type="file" placeholder="file" name="file"/><br/>
        <input type="submit"/><br/>
        <input type="reset"/><br/>
    </form>
    </body>
</html>
```

o/p:

===

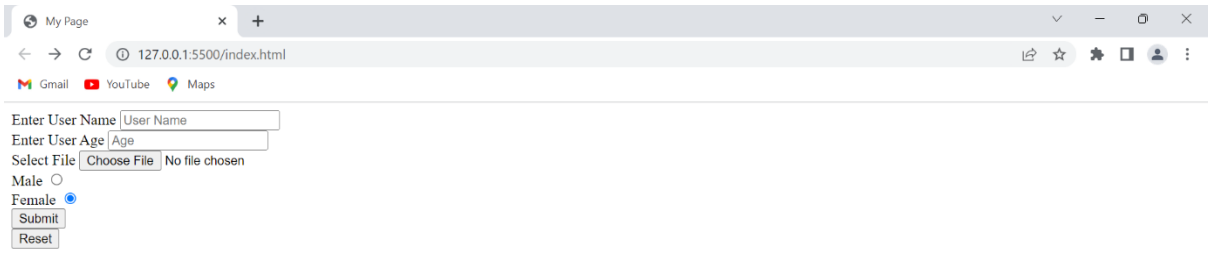


```html
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
    <form enctype="multipart/form-data">
```

```
        <label for="name"> Enter User Name</label>
        <input type="text" placeholder="User Name" name="name" required/><br/>
        <label for="name"> Enter User Age</label>
        <input type="number" placeholder="Age" name="age"/><br/>
        <label for="file"> Select File</label>
        <input type="file" placeholder="file" name="file"/><br/>
        <label for="male">Male</label>
        <input type="radio" placeholder="Male" name="gender"/><br/>
        <label for="female">Female</label>
        <input type="radio" placeholder="Female" name="gender"/><br/>
        <input type="submit"/><br/>
        <input type="reset"/><br/>
    </form>
    </body>
</html>
```

o/p:

===



```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <form enctype="multipart/form-data">
            <fieldset>
                <legend>Personal Details</legend>
                <label for="name">Enter User Name</label>
                <input type="text" placeholder="User Name" name="name"
required/><br/>
                <label for="name">Enter User Age</label>
                <input type="number" placeholder="Age" name="age"/><br/>
                <label for="male">Male</label>
                <input type="radio" placeholder="Male" name="gender"/><br/>
                <label for="female">Female</label>
                <input type="radio" placeholder="Female" name="gender"/><br/>
```

```
            </fieldset>
            <br/>
            <label for="name">Select File</label>
            <input type="file" placeholder="File" name="file"/><br/>
            <br/>
            Select Cars
            <select name="cars">
                <option value="audi">Audi</option>
                <option value="bmw">BMW</option>
            </select>
            <br/>
            Address
            <textarea></textarea>
            <br/>
            <input type="submit"/><br/>
            <input type="reset"/><br/>
        </form>
    </body>
</html>
```

o/p:

===

==========

Video, Audio Tag:

- In the same folder we have video pikachu.
- Source is self-closing tag.
- **controls** - Given time duration, play- pause, download the video, increase or decrease the volume, maximize or the minimize the video size.
- **autoplay** - As soon as the browser page opens the video will start playing.

- **muted** - It will mute the volume. If we play it no volume we can increase or decrease later but by default no volume.

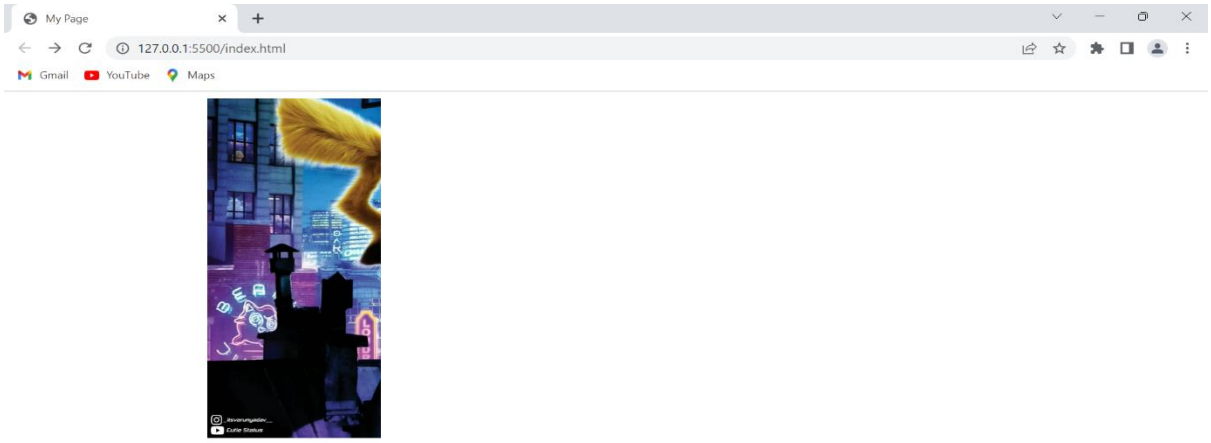
- Suppose we have spelling mistake in the name of the 1st video then 2nd video will play.

- For audio, just change video tag to audio tag, it is similar as video. It can have controls, muted.

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <video height="400" width="600">
            <source src="pikachu.mp4"/>
        </video>
    </body>
</html>
```

o/p:

===

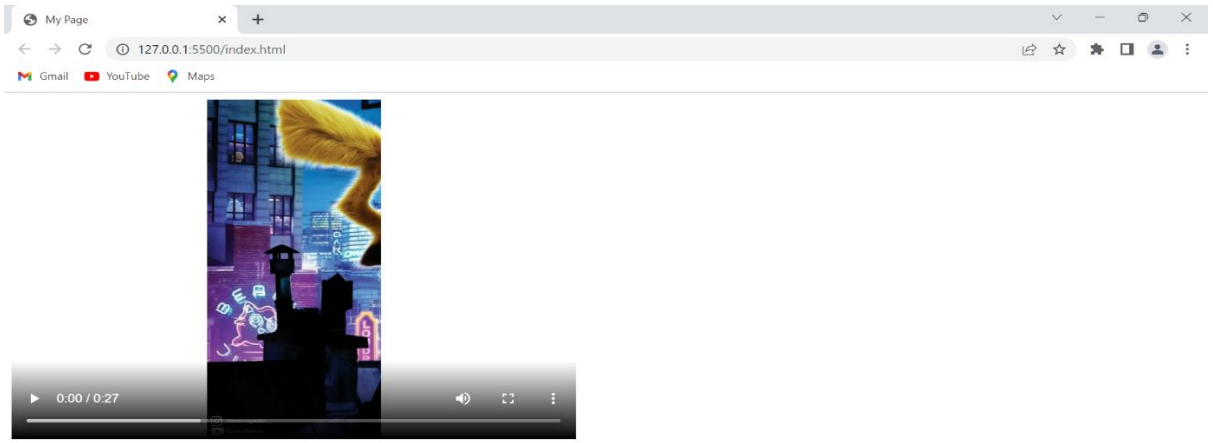


```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <video height="400" width="600" autoplay controls>
            <source src="pikachu.mp4"/>
```

```
        </video>
    </body>
</html>
```

o/p:

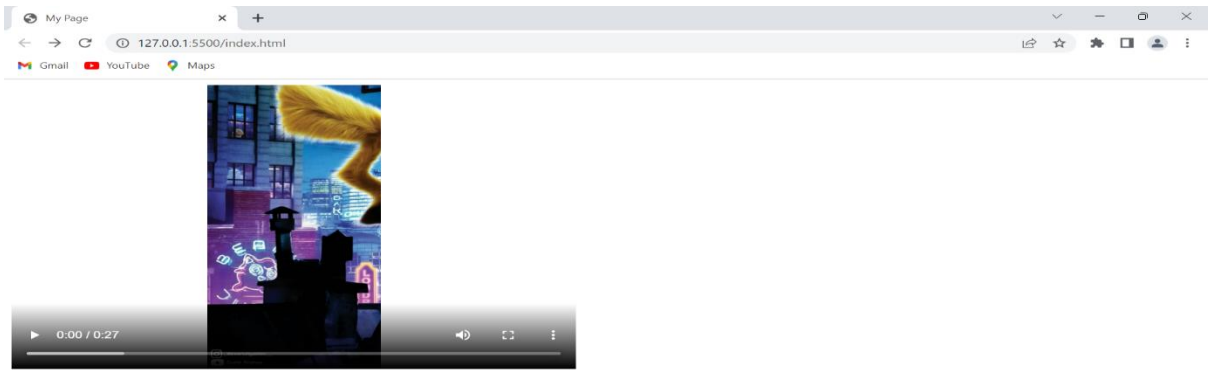
===



```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <video height="400" width="600" controls>
            <source src="pikachu.mp4"/>
        </video>
    </body>
</html>
```

o/p:

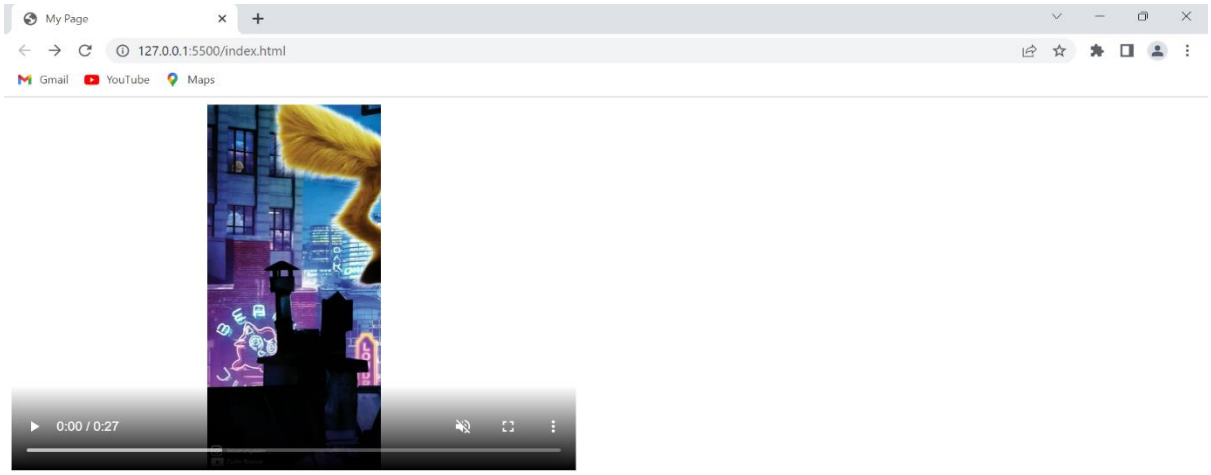
===



```html
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <video height="400" width="600" controls muted>
            <source src="pikachu.mp4"/>
        </video>
    </body>
</html>
```

o/p:

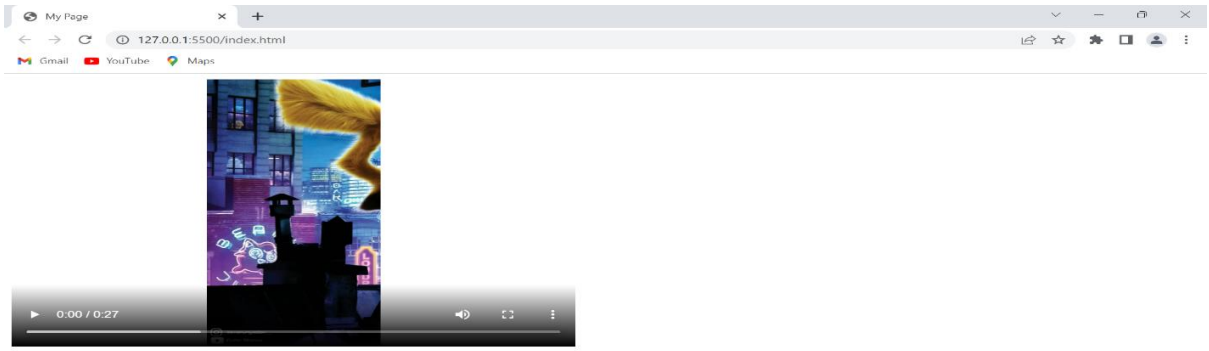
===



```html
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <video height="400" width="600" controls muted>
        <source src="pikachu.mp4"/>
        <source src="video1.mp4"/>
        </video>
    </body>
</html>
```

o/p:

===

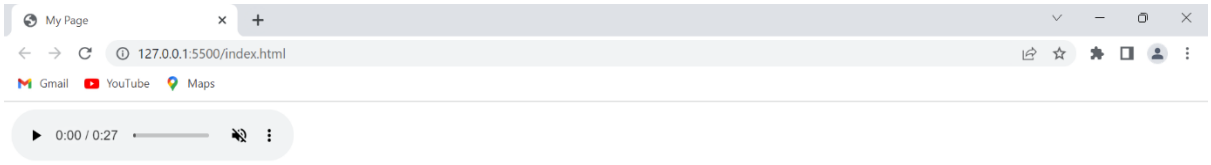


`

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <audio height="400" width="600" controls muted>
            <source src="pikachu.mp4"/>
        </audio>
    </body>
</html>
```

o/p:

===

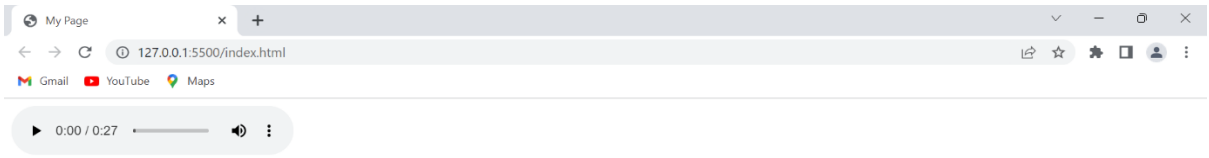


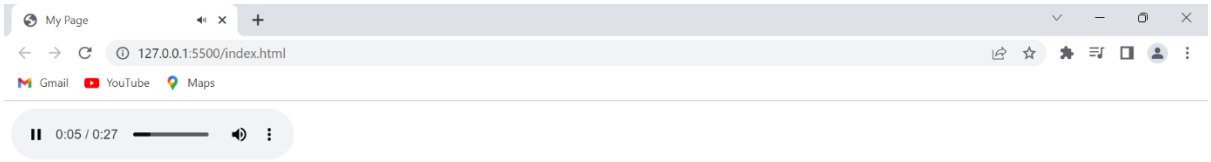
```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
```

```
        <audio height="400" width="600" controls>
            <source src="pikachu.mp4" type="pikachu/mp4"/>
        </audio>
    </body>
</html>
```

o/p:

===





==========

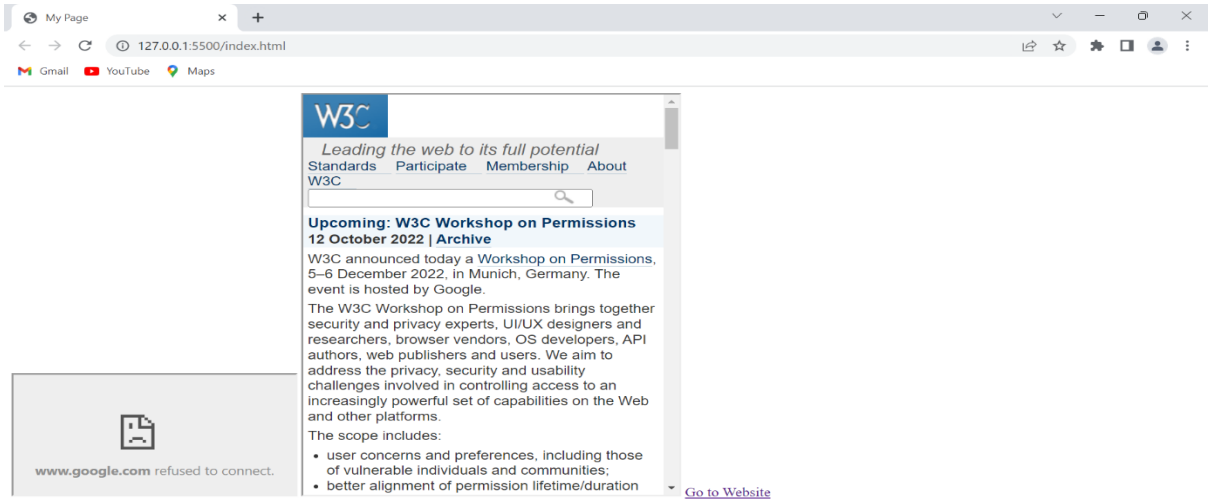
IFrame:

- It is used to show some other website in our website.
- By default, some websites don't support IFrame.
- facebook.com, google.com are not used by iframe

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <iframe src="https://www.google.com/"></iframe>
        <iframe height="500" width="400" title="W3 Website"
name="w3"></iframe>
        <a href="https://www.w3.org/" target="w3">Go to Website</a>
    </body>
</html>
```

o/p:

===



==========

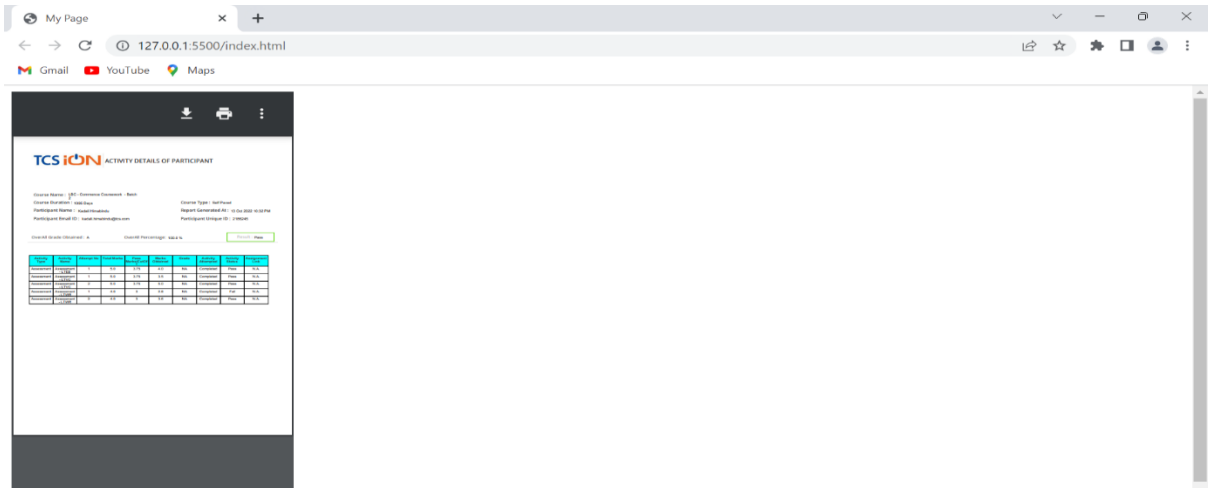
Pdf in HTML:

- **embed** - For embedding the pdf. It is a self- closing tag.
- **object** - In object we use data instead of src

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <embed src="report.pdf" type="application/pdf" height="600"/>
    </body>
</html>
```

o/p:

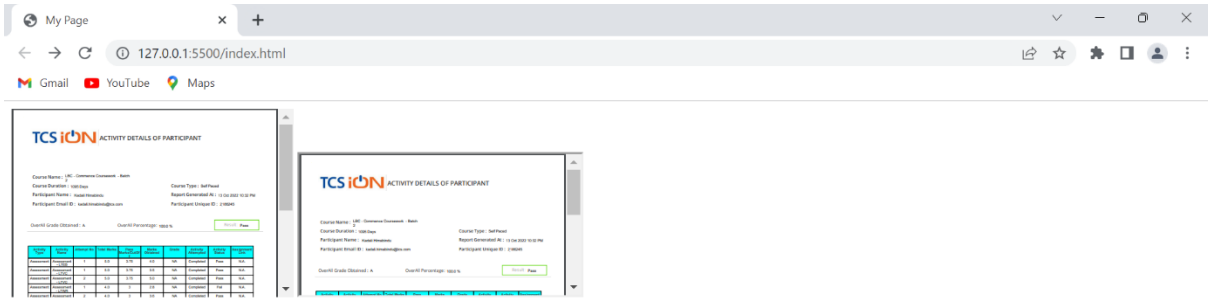
===



```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <embed src="report.pdf" type="application/pdf" height="200"/>
        <iframe src="report.pdf"></iframe>
    </body>
</html>
```

o/p:

===

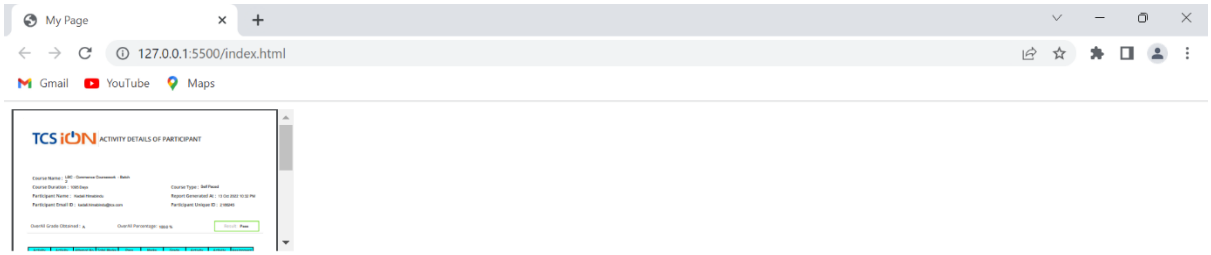


==========

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <!-- <embed type="application/pdf" height="200" />
        <iframe src="report.pdf"></iframe>    -->
        <object data="report.pdf" type="application/pdf"></object>
    </body>
</html>
```

o/p:

===



==========

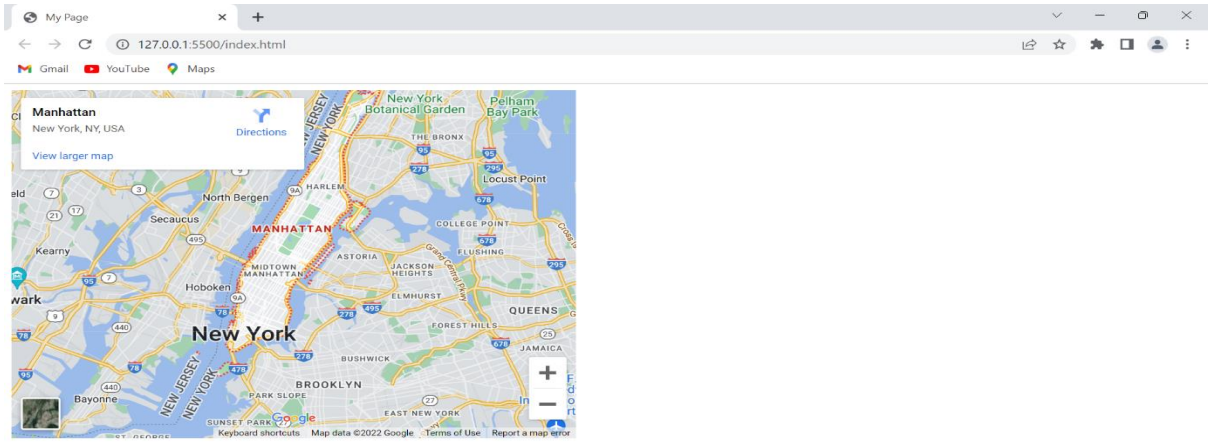
Maps:

- Go to google => Search Google maps => Select Manhattan New York, NY, USA (City, place) => Click on share option => Embed a map => Select size small or medium or large.

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <iframe
src="https://www.google.com/maps/embed?pb=!1m18!1m12!1m3!1d96708.1527667195!2d-
74.0392718456026!3d40.759170361170334!2m3!1f0!2f0!3f0!3m2!1i1024!2i768!4f13.1!3m3!1m2!1s0x89c2588f046ee661%3A0xa0b3281fcecc08c!2sManhattan%2C%20New%20York%2C%20NY%2C%20USA!5e0!3m2!1sen!2sin!4v1665851513023!5m2!1sen!2sin"
        width="600"
        height="450"
        style="border:0;"
        allowfullscreen=""
        loading="lazy"
        ></iframe>
    </body>
</html>
```

o/p:

===



==========

Symbols in HTML:

- We have number symbols and entity symbols both show the same symbol but they have different way of writing.
- It has 2 ways of writing it.

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        &#169; == Number Symbol <br/>
        &copy; == Entity Symbol &reg; &#174; &euro; &trade; &lAarr; &rAarr;
&uArr; &spades;<br/>
    </body>
</html>
```

o/p:

===

© == Number Symbol

© == Entity Symbol ® ® € ™ ⇐ ⇛ ⇑ ♠

==========

Meta Tag:

- Meta tag is basically the documentation of HTML5. It goes inside the <head> tag.
- **charset -** It is the encoding of characters, we follow UTF- 8.

- **description -** Suppose we search who is the richest actor in India. If we search something the line which automatically appears is always in the description part. Whenever we search something, it pops on the top.

- **content** - What the documentation is about.

- **author** - Who is the author

- **viewport** - To make HTML5 website responsive, it is not standalone, uses CSS also. Responsive means when we open, it should be visible clearly whether it may be large or small screen.

- If we go to inspect view as the mobile how it will be viewed in the mobile based on the mobile

- **http-equiv=”refresh” content=”1”** - It automatically refreshes for every 1 second

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
        <meta charset="UTF-8"/>
        <meta name="description" content="HTML Tutorials"/>
        <meta name="keywords" content="HTML, CSS tutorial"/>
    </head>
    <body>

    </body>
</html>
```

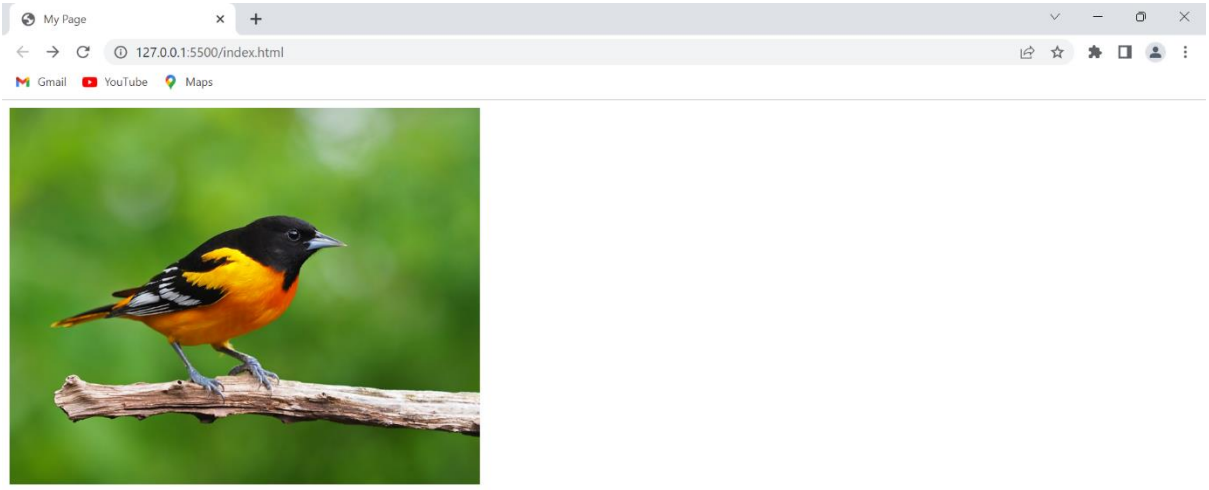
```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
        <meta charset="UTF-8"/>
        <meta name="description" content="HTML Tutorials"/>
        <meta name="keywords" content="HTML, CSS tutorial"/>
        <meta name="keywords" content="HTML"/>
        <meta name="author" content="John Doe"/>
        <meta name="viewport" content="width=device-width, initial-
scale=1.0"/>
    </head>
    <body>
        <img src="bird.png" height="400" width="500"/>
```

```
    </body>
</html>
```

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </body>
</html>
```

o/p:

===



```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
        <meta charset="UTF-8"/>
        <meta name="description" content="HTML Tutorials"/>
        <meta name="keywords" content="HTML, CSS tutorial"/>
        <meta name="keywords" content="HTML"/>
        <meta name="author" content="John Doe"/>
        <meta name="viewport" content="width=device-width, initial-
scale=1.0"/>
        <meta http-equiv="refresh" content="1"/>
    </head>
    <body>
    </body>
```

```
</html>
```

==========

SVG:

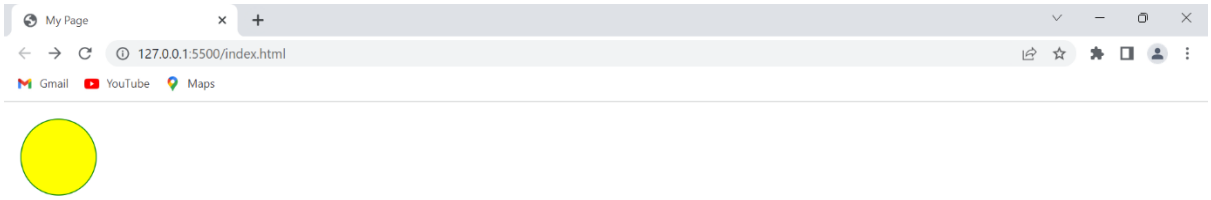
- We can do graphics in HTML.
- We have 2 ways to do Graphics
  1. Canvas - Totally controlled with Java Script
  2. SVG (Scalable Vector Graphic) - It much more faster than a image.
- Suppose if we want to draw something, without writing so much.

  Go to google => Search svg in HTML=>Draw svg (free online tool)
- Here you can go and draw, you will get the points.

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <svg width="100" height="100">
            <circle
            cx="50"
            cy="50"
            r="40"
            fill="yellow"
            stroke="green"
            stoke-width="5"></circle>
        </svg>
    </body>
</html>
```

o/p:

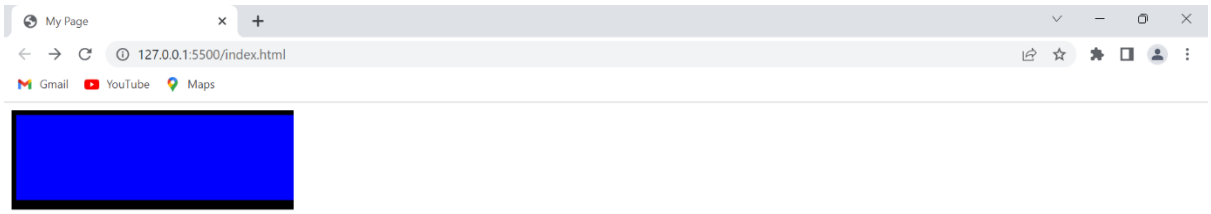
===



```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <svg>
            <rect
            width="400"
            height="100"
            style="fill:rgb(0,0,255);
            stroke-width: 10;
            stroke: rgb(0, 0, 0)">
            />
        </svg>
    </body>
</html>
```

o/p:

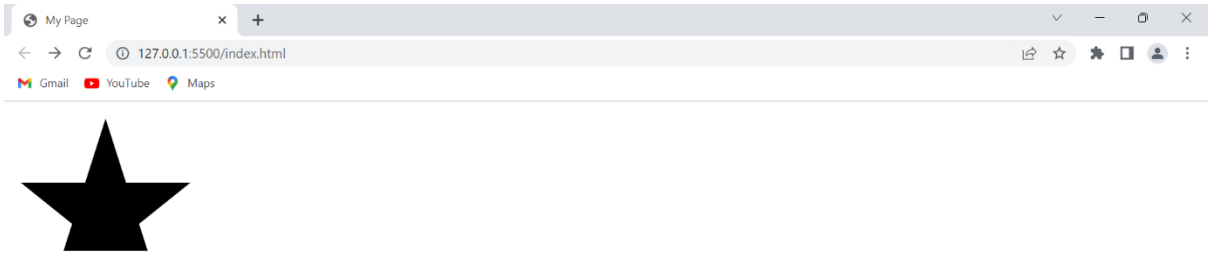
===



```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <svg>
            <polygon points="100,10 40,198,190,78 10,78 160,198"/>
        </svg>
    </body>
</html>
```

o/p:

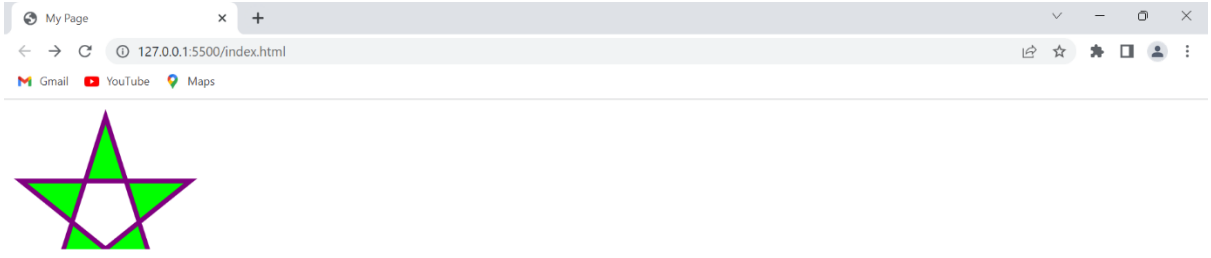
===



```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        <svg>
            <polygon points="100,10 40,198,190,78 10,78 160,198"
            style="fill:lime;stroke:purple;stroke-width:5;fill-rule:evenodd;"
/>
        </svg>
    </body>
</html>
```

o/p:

===



==========

Emoji:

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
```

```
    &#128512; &#128516; &#128517; &#128520;
    </body>
</html>
```

o/p:

===

😀 😄 😅 😈

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        How are you? <br/>
        I'm good &#128512;
    </body>
</html>
```

o/p:

===

How are you?
I'm good 😀

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
        How are you? <br/>
        I'm good &#128540;
    </body>
</html>
```

o/p:

===

How are you?
I'm good 😜

==========

Validate HTML:

- As we know, HTML don't show any error. We can validate our code online.
- Go to Google => Validate HTML => w3.org => Validate direct input => Paste the code => Check. It shows errors and warnings.
- If we don't add closing tag for h1 then it displays error.
- **dir="rtl"** - To write from right to left.

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Page</title>
    </head>
    <body>
     <h1>Validating Your HTML</h1>
    </body>
</html>
```

o/p:

===

1. **Warning: Consider adding a `lang` attribute to the `html` start tag to declare the language of this document.**

From line 1, column 16; to line 2, column 6
TYPE html>↩<html>↩ <
For further guidance, consult Declaring the overall language of a page and Choosing language tags.
If the HTML checker has misidentified the language of this document, please file an issue report or send e-mail to report the problem.

Document checking completed.

Source

1. <!DOCTYPE html>↩
2. **<html>**↩
3. <head> ↩
4. <title>My Page</title>↩
5. </head>↩
6. <body>↩
7. <h1>Validating Your HTML</h1> ↩
8. </body> ↩
9. </html>

Used the HTML parser.

Total execution time 2 milliseconds.

```
<!DOCTYPE html>
<html lang="en">
    <head>
        <title>My Page</title>
    </head>
    <body>
     <h1>Validating Your HTML</h1>
    </body>
</html>
```

o/p:

===

Validating Your HTML

```
<!DOCTYPE html>
<html dir="rtl" lang="en">
    <head>
        <title>My Page</title>
    </head>
    <body>
        <h1>Validating Your
HTML</h1>
    </body>
</html>
```

o/p:

===

Validating Your HTML

==========