html => hypertext markup language
=> data presentation
=> UI designing  (sign up, login, registration, search form…)
= static webpages

CSS => Cascading Style Sheets
=> used to change look & feel of webpage(html elements)

JS  => JavaScript
=> its back-end for html/css (Front-end)
=> it provides logical support or client validations

Html/css/JavaScript    static web site designing

Html/css/JavaScript+angular or reactJS   front-end developer
UI/UX developer

advJava/spring/asp.net/python/php/nodejs  back-end dev

**Network:**Collection of computers interlinked together is called network. First network name is **ARPANET** (Advanced Research Projects Agency Network). First protocol in IT industry is FTP (File Transfer Protocol).

**Internet:**Internet stands for international networking.
1990
The Internet is a network of connected computers. No company owns the Internet; it is a cooperative effort governed by a system of standards and rules. The purpose of connecting computers together, of course, is to share information.

Internet is a collection web application,
Web application is group of web pages
Web page is group components (means heading, para, image, button, tables, …)

## A Brief History of the Web

The Web was born in a particle physics laboratory (CERN) in Geneva, Switzerland in 1989. There a computer specialist named **Tim Berners-Lee** first proposed a system of information management that used a "hypertext" process to link related documents over a network. He and his partner, **RobertCailliau**, created a prototype and released it for review. For the first several years, web pages were text-only. It's difficult to believe that in 1992, the world had only about 50 web servers.

Tim Berners Lee  internet (1989-1990)

- ⇨ Html (HyperText Markup Lang)
- ⇨ http (hyper Text Transfer Protocol)
- ⇨ W3C org

## The World Wide Web Consortium

World Wide Web Consortium (called W3C) is the organization that oversees the development of web technologies. The group was founded in 1994 by TimBerners-Lee, the inventor of the Web, at the Massachusetts Institute of Technology (MIT).
**Tim Berners-Lee (WWW/HTTP), Cerf & Kahn (TCP/IP), Baran, Davies, Kleinrock & Roberts (packet networking),  Bob Metcalfe (Ethernet).**

## WHAT IS WEB APPLICATION?

Web applications are network enable applications. We can deploy any web applications in servers and we can access them over network using server ip address and application name.

In computing, a **web application** or **web app** is client–server software **application** which the client (or user interface) runs in a **web browser** and it contains web documents in the form electronic pages(web pages).

**A web application typically contains fallowing three layers:**

**Presentation layer** is a user interface (views) which are accessible from any web browser.

**Business layer** is a server-side program which is nothing but automation of business rules. Client layer will interact with business layer to persist data.

**Data layer** is database software where we can store client related data. Business layer will interact with data layer.

## How the Web Works

1. When you connect to the web, you do so via an Internet Service Provider (ISP). You type a domain name or web address into your browser to visit a site; for example: google.com, oracle.com, microsoft.com.
2. Your computer contacts a network of servers called Domain Name System (DNS)servers. These act like phonebooks; they tell your computer the IP address associated with the requested domain name. An IP address is a number of up to 12 digits separated by periods / full stops. Every device connected to the web has a unique IP address; it is like the phone number for that computer.
3. The unique number that the DNS server returns to your computer allows your browser to contact the web server that hosts the website you're requested. A web server is a computer that is constantly connected to the web, and is setup specially to send web pages to users.
4. The web server then sends the page you requested back to your web browser.

# Server

A **server** is a computer or system that provides resources, data, services, or programs to other machines, known as clients, over a network/inet. In theory, whenever computers share resources with client machines, they are considered **servers.**
a **server** stores all the data associated with the websites that are hosted by it and shares that info with all computers and mobile devices (like yours) that need to access them.
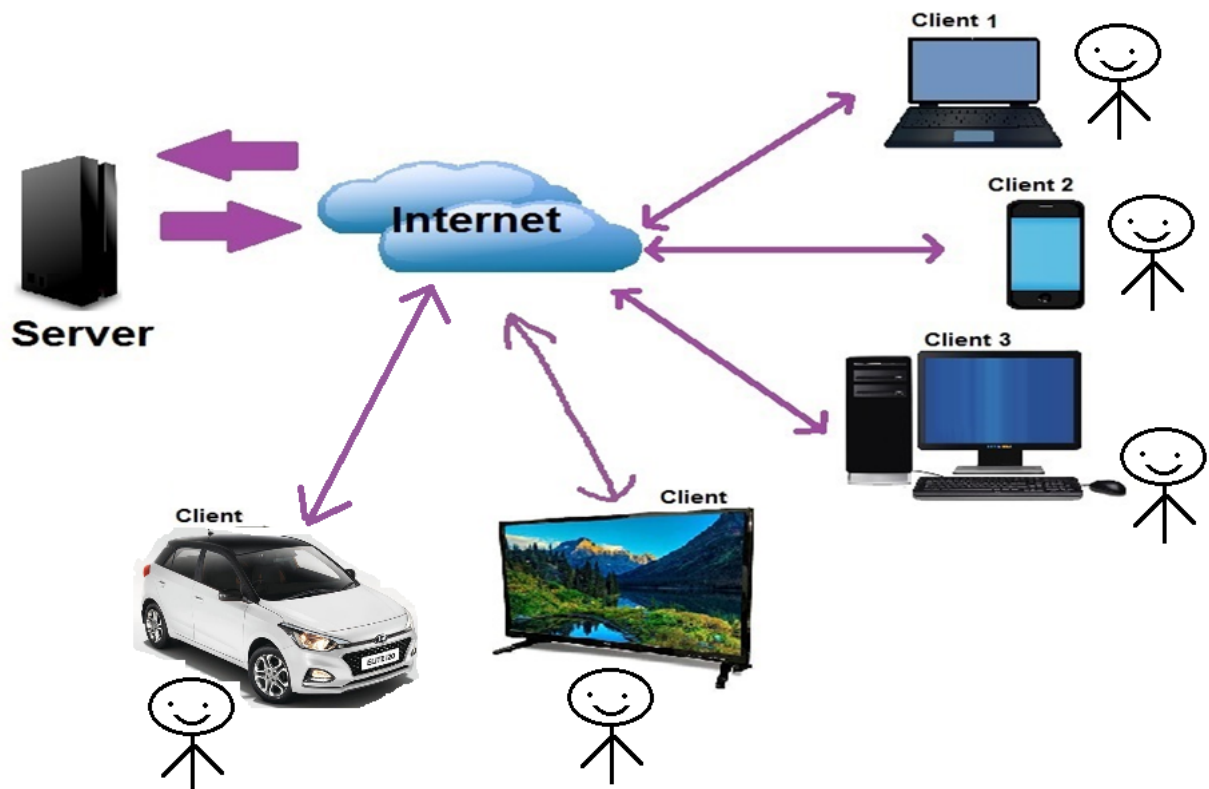
# Client

A client is an electronic device that connects to and uses the resources of a remote computer, or server.
Clients may use a desktop or a laptop or a tablet or a mobile phone or a TV etc.
The device which is used by the user is called a "Client".

# User

The person who is working on/operating a client machine is known as User or end-user.



**Client:**

**It is a machine or device (desktop or laptop or tablet or mobile phone or TV etc), which can access the data from server machine.**

**The device which is used by the user is called as "Client", person who is working on client machine is known asUser.**

## What is web browser?

It is client-side lightweight software installed in client machine. It sends http request from client to server; it takes http response from server.

Browser provides navigation among web pages, and browsers executes html, css, JavaScript files and displays output to user.

**List of Computer Browsers:**

Internet Explorer(1995), Opera(1995), Mozilla Firefox(1998), Safari(2005), Google Chrome(2008) etc…

**List of Mobile Browsers:**
Mobile Safari (iOS), Android Browser (Android), BlackBerry Browser (RIM), Nokia Browser (Symbian), Opera Mobile and Mini (installed on any device), Internet Explorer Mobile (Windows Phone), Silk (Kindle Fire) etc…

**Email:** Electronic mail services. It is a free service to communicate with other internet users. Email is invented by **Shabeer Bhatia.** Sabeer Bhatia is an Indian entrepreneur who founded the webmail company Hotmail.com.
**SMTP:** Simple Mail Transfer Protocol. It takes care of delivering emails from one server to another.
**MIME:** Multipurpose Internet Mail Extensions. It exchanges different kinds of data.
**Blog:** It is daily updating website or webpage. Every post displayed in reverse chronological order.
**Forum:** It is an online discussion website to exchange resources each other.
**Http:** It is a transfer protocol to exchange hypertext documents in the world wide web.
**Http(s):** Secured transfer protocol to exchange hypertext documents with the help of SSL(ciphertext).
**Ciphertext** is encrypted text. Plaintext is what you have before encryption, and **ciphertext** is the encrypted result. The term cipher is sometimes used as a synonym for **ciphertext**, but it more properly **means** the method of encryption rather than the result.

## HOW MANY TYPES OF WEB APPLICATIONS WE HAVE?
A webpage is an electronic page developed on HTML. It is classified into two types.

Static webpage: A user unable to interact directly with these web pages. Eg: HTML, CSS
Dynamic webpage: End-user can able to interact directly with these web pages. Eg: HTML, CSS &Javascript

Collection of web pages or web documents is called web application (website). These are classified into two types:

**STATIC WEB APPS:** The applications which can't able to handle business logic are known as static web apps. Static apps will contain only client layer. We can develop static web applications using HTML. To provide look and feel to these static pages we can use CSS. To handle client layer business logic we can use Javascript. We can't able to maintain end user interaction (state) using static web apps.

**DYNAMIC WEB APPS:** The applications which can able to handle business logic are known as dynamic web apps. These type of apps contains at least 2 layers client and business. If we need to store client data then these application contains data layer too. We can develop client layer using HTML, CSS &javascript and business layer using any one of the server programming language like .NET, JAVA/J2EE & PHP etc...We can store end user data using any database like mongo db, MS-SQL, MySql, Oracle etc.

## What is HTML?

It is specially designed hypertext for web browsers, with meaningful tags or elements in simple English language.

# HTML Intro

1. HTML was developed by "Tim-Berners-Lee", released in 1993 and maintained by W3C Org.

2. HTML stands for "Hypertext Markup Language".

3. Hypertext" means the text that can be transferred from the internet server to the internet client.

   "Markup Language" means which syntax will be in the form of tags or you simply "markup" a text document with tags that tell a Web browser how to structure it to display.

4. Technically, HTML is not a programming language, but rather a markup language.

5. HTML is used to design "**static web pages**", meaning HTML is used to create elements (such as headings, paragraphs, icons, menus, logos, images, textboxes, buttons etc) in the web pages.

a static webpage means that pages always showing the same information.

6. HTML is very easy to understand (no prerequisites).

7. HTML is "client side tech". That means the html code executes on the client browser but not on the server.

**web tech:**

which sw are supporting to design web pages or providing API to dev web coding those sw are called as web tech.

>**client side tech**  ex: html/css, js, jquery, BS ...

used for static web pages.

bw rec source code & trans after execution then produced the            output.

>**server side tec**h  ex:  servlet, jsp, asp.net, php, cgi, nodejs, cold fusion ...

dynamic web pages.

code trans, execute with in server only, and produced output, this        output sent to the client machine.

8. HTML is supported by all the browsers such as Google Chrome, Mozilla Firefox, Microsoft Internet Explorer, Safari, Opera and other browsers.

9. HTML is used in all real time web sites today; html is the only language available in the world for designing Web Pages.

10.    The file extension either "filename.html" or "filename.htm"

11.    HTML is an interpreter-based language. That means the HTML code will be converted into machine language in +. Browser interprets HTML code.

**Translators:** converting high level code (human) into machine level code (MP/OS) is called translation. Who performs this operation are called translators.

12. HTML is not a <mark>case sensitive</mark> language that means you can write the html code in either uppercase or lower case.

**Tag:**

· A tag is a keyword, enclosed within "<" and ">" in HTML language.

· It is a special kind of text placed between the left angular brace and right angular brace(<tag_name>).

· Tag is a predefined program, program is instructions / command to the browser.

· Tag is used to display some specific output in the web page.

· browser did not identify the tag; it shows a blank or it prints as text.

· tags also represented as elements.

· tag has some attributes(properties), those are used to make some settings, information,...

**types of tags:**

in html we have **two** types tags, those are:

>**paired tags**

contains open tag and closing tag.

opening tag specifies starting point of operation/output, closing tag specifies ending point of operation/output.

Syn:  **<tagname>**something**</tagname>**

    **ex:** <html> ... </html>

     <head> ... </head>

     <body> … </body>

     <script> ... </script>

<style> ... </style>

<p> … </p>

  **note: paired tags also called as body-full tags**


**>unpaired tags**

 contains only an open tag.

**VOID** => ITS not RETURNING ANY VALUE

    Syn:  <tagname>   or     

    **ex:**  <br/>   <img/><input/>

<hr>

    <link>
**note: Unpaired tags also called as body-less tags**


**Note: html is a collection of tags(elements) and attributes.**

**comment lines**

comment lines are used to provide some description about our program.

comments are not executed by browser.

**Syn:**

       **<!-- comments -->**

## heading tags

These tags are used to print data/text in heading format.

html provides 6 heading tags, those are h1, h2, h3, h4, h5, h6.

These 6 tags are used to display headings in different sizes.

six tags are paired tags and block level elements.

**Syn:**

**<h1> text </h1>**

**<h2> text </h2>**

**<h3> text </h3>**

**<h4> text </h4>**

**<h5> text </h5>**

**<h6> text </h6>**

**Note:** inside the body section we can repeat any tag and no.of times.

## demo.html

```
<!DOCTYPE html>

<html lang="en">

 <head>

 </head>

 <body>

   Welcome to The Web World&#128525;

 </body>

</html>
```

## example1

```html
<!-- examples on heading -->
<!DOCTYPE html>
<html lang="en">
  <head> </head>
  <body>
      <h1>Hypertext Markup Language</h1>
      <h2>Hypertext Markup Language</h2>
      <h3>Hypertext Markup Language</h3>
      <h4>Hypertext Markup Language</h4>
      <h5>Hypertext Markup Language</h5>
      <h6>Hypertext Markup Language</h6>
      <h2>Cascading Style Sheets</h2>
      <h4>JavaScript</h4>
  </body>
</html>
```

## p tag

> p stands for paragraph.

> this tag is used to display/print more lines of text (paragraph)

> its paired tag and block level.

> Browser displaying gap between paragraphs (margin)

Syn:

**<p> text or info </p>**


## example2

```
<!-- example on p tag -->
<!DOCTYPE html>
<html lang="en">
  <head>
  </head>
  <body>
          <H3>Baby and Kids</h3>
          <p>Your kids deserve only the best. From bodysuits,
booties, diapers to strollers, if you're an expecting mother or a
new mother, you will find everything you need to set sail on a
smooth parenting journey with the help of our baby care
collection. When it comes to safety, hygiene and comfort, you
can rely on us without a second thought. Huggies, Pampers,
```

MamyPoko, and Johnson & Johnson: we host only the most-trusted names in the business for your baby.</p>

<h3>Books, Sports and Games</h3>

<p>Work hard and no play? We don't believe in that. Get access to best-selling fiction and non-fiction books by your favourite authors, thrilling English and Indian blockbusters, most-wanted gaming consoles, and a tempting range of fitness and sports gadgets and equipment bound to inspire you to get moving.</p>

<h3>Grocery/Supermart</h3>

<p>Launching into the grocery vertical, Flipkart introduces Supermart that is out to bring everyday essentials close to you. From pulses, spices, dairy, personal and sanitary care, breakfast essentials, health drinks, spreads, ready to cook, grooming to cleaning agents, we are happy to present everything you need to run a house. Now buy Grocery products for as low as 1 Rupee only - our 1 Rupee Store presents new products every day for a nominal price of 1 Rupee only. Terms and conditions apply.</p>

  </body>

</html>

## br tag

==> break line or line break

==> its unpaired

==> 1br : 1line

    Syn:-     `<br/>`   or  `<br>`


## html entities

==> entity nothing html special char or operator

==> entities are used to print data along with some symbols

==> every entity is an word

    Syn:-     `&operator;`


## example3

```
<!-- example on br tag & html entities -->
<!DOCTYPE html>
<html lang="en">
  <head>
  </head>
  <body>
        Apple<br>Mango
```

&lt;br/&gt;&lt;br/&gt;&lt;br/&gt;

Orange&lt;br/&gt;

Naresh&amp;nbsp;&amp;nbsp;i&amp;nbsp;&amp;nbsp;Tech&lt;br/&gt;

&amp;laquo;Siva&amp;raquo; &lt;bR&gt;

100$ &lt;br&gt; 100&amp;euro; &lt;br&gt; 100&amp;pound; &lt;br&gt; 100&amp;yen; &lt;br&gt;

The Intel&amp;reg; Core&amp;trade; X-series&amp;copy; processor &lt;bR&gt;

&amp;frac14; &amp;frac34; &lt;br&gt;

100&amp;divide;30 &lt;br&gt;

&amp;plusmn;125 &lt;bR&gt;

100&amp;#8377;   &lt;br&gt;

&amp;#138222;              &amp;#138322; &amp;#138333;  &lt;br&gt;

&amp;#128221;         &amp;#128332;         &amp;#128523; &amp;#128544;

  &lt;/body&gt;

&lt;/html&gt;

## formatting tags

==> formatting tags used for formatting text

==> formatting means change printing style of text

      strong, em, u, strike, sub, sup, b & i tags


strong tag ==> used to print the text in bold format

      Syn:-<strong>text</strong>

em ==> used to print the text in italic format

      Syn:-<em>text</em>

u ==> used to print the text with underline

      Syn:-<u>text</u>

strike ==> used to print text with strikeout

      Syn:-<strike>text</strike>

sub ==> subscript, used to print text below the actual line

      Syn:-<sub>text</sub>

sup ==> superscript, used to print text above the actual line

      Syn:-<sup>text</sup>

      8 tags are paired tags

      inline tags

## example4

```html
<!-- example on formatting tags -->
<!DOCTYPE html>
<html lang="en">
  <body>
        <strong>HTML</strong>
        <b>CSS</b>
        <em>JavaScript</em>
        <br>
        <i>BootStrap</i>
        <u>ReactJs</u>
        <strike>AngularJS</strike>
        <br>
        H<sub>2</sub>SO<sub>4</sub>
        <br>
(a-b)<sup>2</sup> = a<sup>2</sup> + b<sup>2</sup> - 2ab
        <br>
        <h1><u><em>Happy Pongal</em></u></h1>
  </body>
</html>
```

## Attributes

> Attribute is a special feature/setting of a tag.

> Attributes are used to change the ==default look== html elements, to provide some ==additional information== to the browser, to invoke JS code, to ==control size== of html elements etc…

> every tag have some attributes

Syn:

**<tagname** attribute="value"  attribute='value' ...**>**

         " "  or  ' '

 **Types:**

1. **general attributes**

è these attributes are used to customize default settings of html tags

**ex:** id, name, class, style, type, lang, src, width, height, href, rel, max, min, target, method, action,  autofocus, etc…

 2. **event attributes**

è these attributes are used to call/to execute JavaScript code from html pages
    **ex:** onclick, ondblclick, onfocus, onblur, onsubmit, onchange, onkeypress, oncopy, onpaste, oncut, onmouseover, onmousemove, onmouseout, oncontextmenu, onload etc…


# example5

<!-- example on  html attributes -->

<!DOCTYPE html>

<html lang="en">

```html
<body>
        <h3 align="center">Distribution of the evaluation version</h3>

        <!-- left,right,center,justify,top,middle,bottom-->

        <p align="justify">You may copy the evaluation version of this software and documentation as you wish, and give exact copies of the original evaluation version to anyone, and distribute the evaluation version of the software and documentation in its unmodified form via electronic means. But you should not charge or requesting donations for any such copies however made and from distributing the software and/or documentation with other products without the author's written permission.</p>


        <h1 onclick="alert('Hey, You Clicked on my tag')">Click here</h1>

        <h2 ondblclick="alert(new Date())">show date&time</h2>

        <H3 id="hh3"
onmouseover="hh3.innerText='Yarrapati'"
onmouseout="hh3.innerText='Siva Kumar'">Siva Kumar</h3>

    </body>

</html>
```

## title tag

=> used to set title for a web page

=>     1page : 1title

        web site -> 10pages -> 10titles

=> its paired tag, and it should be sub tag of "head" tag

    Syn:-         <title>text</title>

Note: titles are displaying on the browser tab


## link tag

=> link tag used to set icon(logo) for webpage, to link external styles

=> its unpaired tag, and it should be sub tag of "head" tag

    Syn:-     <link  rel="icon"  href="filename"/>

              relative => "icon" or "stylesheet"

              hyper reference => address of image

       .ico       .jpg  .png .webp     .jfif       .tif   .gif

## example6

```
<!-- example on  title & link tags  -->
<!DOCTYPE html>
<html lang="en">
```

```
    <head>
        <title>My 6th Web Page</title>
        <link rel="icon" href="e:/html2pm/logo2.png"/>
    </head>
    <body>
        <h3>demo on setting web page logo & title</h3>
    </body>
</html>
```

## images

> "img" tag is used to display images on a webpage.

> in one webpage's we can display any no.of images and any type of images.

> it is strongly recommended to place all images in side root folder or create

 sub folder with name images in root folder

>its un-paired tag, and its inline element

Syn:

   &lt;img attributes/&gt;

     .jfif .svg .jpg .bmp .gif .tif .png .webp

**attributes:**

**src** => to specify location of image

**width** => width of image (pixel)

**height** => height of image (pixel)

**title** => it is used to specify tooltips. (whenever mouse pointer comes on top of image)

**alt** => alternative text, if image not loaded in webpage/not display, we want to display text message to user it called as alt

## example7

```
<!-- example on  img tag -->
<!DOCTYPE html>
<html lang="en">
  <head>
      <title>My 7th Web Page</title>
      <link rel="icon" href="e:/html2pm/logo2.png"/>
  </head>
  <body>
          <h3>demo on displaying images</h3>
          <img src="e:/html2pm/images/tree.jpg"/>
          <img src="images/car.jpg"/>
          <br>
```

```
        <img
src="https://thumbor.bigedition.com/iguazu-falls/XDt9c1QoOO
DWL6Mp0xSEBOqAAas=/800x600/filters:format(webp):quality(8
0)/granite-web-prod/f3/f8/f3f8a58d10924219b12963e43ac22ae
c.jpg"/>

        <br>

        <img src="images/baby.webp" width="800px"
height="500px"/>

        <img src="images/animal.jpg" title="Soooo
Cuuuuute!!!"/>

        <img src="images/mario.png" alt="image not loaded,
try again" width="200px" height="200px"/>

  </body>
</html>
```

## **hyperlinks**

> a stand for "anchor"

>"a" tag is used to create hyperlinks, hyperlinks are used to move from one webpage to another webpage.

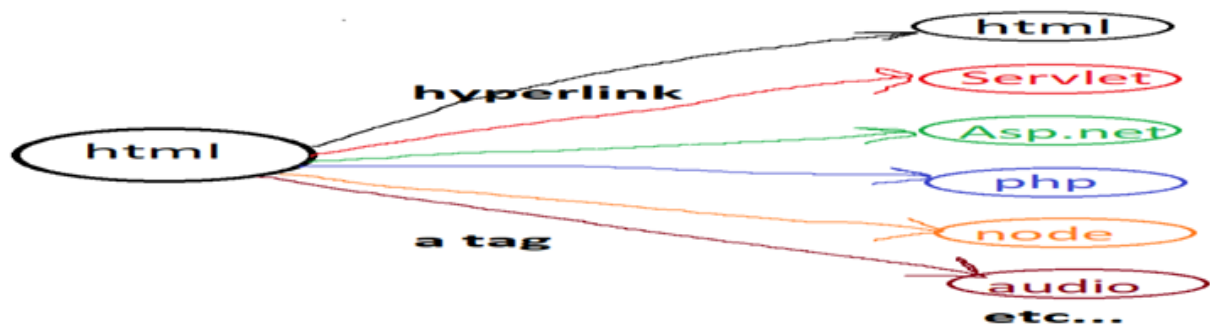>whenever the user clicks on the hyperlink, it moves to the specified page.

> destination page sometime within the same application or other application.

 > by default, every browser provides built-in style for each hyperlink,

i.e blue color+handsymbol+underline.

We can customize these styles by using CSS.

> its paired tag, and inline element



**Syn:**

      <a attributes>Display Text</a>

      <a attributes><img></a>


**attributes:**

href  : hyper reference, used to specify the address of webpage or web site,
             i.e whenever user clicks on this link, which page you want to open

       url may be html page, server-side file, image, audio file, video, pdf file,
documents           etc...

               href="url"

               "https://www.abc.com/login.aspx"

               "" è self-calling

               "." è home page of web site/home dir of web application

               "#id" è it creates bookmarks (moving within same page)


    target  : where you want open destination page

_blank ==> opens the link in a window/tab

_self  ==> opens the link in current working tab/window (its default)

framename ==> opens the link in specific frame

## example8

```
<!-- example on  a  tag -->

<!DOCTYPE html>

<html lang="en">

  <head>

      <title>My 8th Web Page</title>

      <link rel="icon" href="logo1.png"/>

  </head>

  <body>

          <h3>demo on hyperlinks</h3>

          <a href="e:/html2pm/page2.html">goto Page2</a>

      <a
href="https://www.facebook.com/login.php">facebook</a>

          <bR> <bR>

          <a target="_blank"
href="https://www.amazon.in/b?node=2563504031&pf_rd_r=G
8NH5MXRJ7JY55QWZBN1&pf_rd_p=a176dc4e-2f08-48cf-b4a4-9
```

155f2f26834&pd_rd_r=2b42fa71-1a22-413f-9baf-682bb8e1ee5a
&pd_rd_w=JznOA&pd_rd_wg=M65RR&ref_=pd_gw_unk">

                                                                                                                                                          

```html
            <img src="images/watch.jpg" width="100px" height="70px"/>

            <bR>

            Watches

        </a>

    </body>

</html>
```

## example9

```html
<!-- example on  a  tag -->

<!DOCTYPE html>

<html lang="en">

  <head>

      <title>My 9th Web Page</title>

      <link rel="icon" href="logo1.png"/>

  </head>

  <body>

        <h3>demo on hyperlinks</h3>
```

```html
<a href="files/job-application.pdf">Click here to Apply Job</a>

<bR>

<a href="files/Functions JS.docx">JS Functions Notes</a>

<bR>

<a href="files/ZoomInstallerFull.exe">Download Zoom</a>

<bR>

<a href="files/Oh Sita Hey Rama.mp3">Play Audio</a>

<bR>

<a href="files/videoplayback.mp4">Play Video</a>

<br>

<a href="images/animal.jpg">
    <img src="images/animal.jpg" width="150px" height="150px"/>
</a>

<a href="images/baby.webp">
    <img src="images/baby.webp" width="150px" height="150px"/>
</a>
```

```
        <a href="images/mario.png">

            <img src="images/mario.png" width="150px"
height="150px"/>

        </a>

    </body>

</html>
```

# CSS

=> cascading style sheets

=> css 3

=> released & maintains by W3C Org (1996)

=> used to change the look & feel of web page(makeover)

=> using we can redefine html elements(tags)

=> css used to create/define styles in the form of sheets

=> css is collection of properties & functions

we can implement css in 3 ways(places), those are

              1. inline        2. internal           3. external

**inline styles:**

=> with in the same line

=> html tag and styles are defined in same line

=> used to define personal styles for html elements(unique)

Syn:-

<tag  style="property:value; property:value;...">

width="100px"            "width:100px;"

## example10

```
<!DOCTYPE html>
<html lang="en">
  <head>
      <title>My 10th Web Page</title>
      <link rel="icon" href="logo1.png"/>
  </head>
  <body>
          <h3>demo on inline styles</h3>
          <h1 style="color:red;">Red Apple</h1>
          <h1 style="color:green;">Green Mango</h1>
          <h1 style="color:yellow;">Yellow Banana</h1>
          <a href="page3.html" style="color:hotpink;">goto
Page3</a>
```

```
        <bR>

            <a style="color:cyan;" href="page4.html" >goto
Page4</a>

    </body>

</html>
```

# example11

**internal styles:**

=> html tags and styles are defined in same program, but not in same line

=> used to define common styles for html elements(repeated)

=> internal styles should be defined with in <style> tag

=> style is paired, and it should be tag of "head" tag

   Syn:-

```
            <style>

                tag{
                    selector

                        property:value;

                        property:value;

                        ......
```

```
                    }
              tag{
                          property:value;

                          property:value;

                          ......

              }

       </style>

<!DOCTYPE html>

<html lang="en">

  <head>

      <title>My 11th Web Page</title>

      <link rel="icon" href="logo1.png"/>

         <style>

             h1{

                 color:red;

             }

             img{

                 width:150px;

                 height:150px;

             }
```

```html
        </style>
    </head>
    <body>
        <h3>demo on internal styles</h3>
        <h1>Apple</h1>
        <h1>Mango</h1>
        <h1>Banana</h1>


        <a href="images/animal.jpg">
            <img src="images/animal.jpg"/>
        </a>
        <a href="images/baby.webp">
            <img src="images/baby.webp"/>
        </a>
        <a href="images/mario.png">
            <img src="images/mario.png"/>
        </a>
    </body>
</html>
```

# example12

**external styles:**

=> html tags and styles are defined in separate programs

=> global styles

Syn:

`<link rel="stylesheet" href="filename1"/>`

`<link rel="stylesheet" href="filename2"/>`

```
<!DOCTYPE html>
<html lang="en">
  <head>
      <title>Page12</title>
      <link rel="icon" href="logo1.png"/>
          <link rel="stylesheet"
href="e:/html2pm/mystyles.css"/>
  </head>
  <body>
          <h3>demo on external styles</h3>
          <h1>Rama</h1>
          <h1>Sama</h1>
          <h1>Gama</h1>
```

```html
<h1>Bhama</h1>

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    </body>
</html>
```

**mystyles.css**

```css
h1{
    color:red;
}
p{
    color:blue;
    text-align:justify;
}
```

## example13

```
<!-- example on css implementations (3 models)-->
<!DOCTYPE html>
<html lang="en">
  <head>
      <title>Page13</title>
      <link rel="icon" href="logo1.png"/>
        <link rel="stylesheet" href="mystyles.css"/>
        <style>
            h1{
                color:blue;
            }
        </style>
  </head>
  <body>
        <!-- applying 3 models on same tag with repeated property -->
        <h1 style="color:green;">Hypertext Markup Language</h1>
  </body>
```

```html
</html>
```

## example14

```html
<!-- example on css implementations (3 models)-->

<!DOCTYPE html>

<html lang="en">

  <head>

    <title>Page14</title>

    <link rel="icon" href="logo1.png"/>

      <link rel="stylesheet" href="mystyles.css"/>

      <style>

        h1{

            background:yellow;

        }

      </style>

  </head>

  <body>

<!-- applying 3 models on same tag without repeated property
-->
```

```
        <h1 style="text-align:center;">Hypertext Markup
Language</h1>

        <h1>Cascading Style Sheets</h1>

    </body>

</html>
```

## example15

CSS properties

color ==> css property, used to change color of text (foreground)

        Syn:        color:color-spe;

background-color ==> css property, used to change background
color of html tags

        Syn:        background-color:color-spe;

**color specifications:**

        => named colors

                        ex: red, green, cyan, pink...

        => color constants(codes)

                        hexadecimal code (base 16)

                        0 to 9, a,b,c,d,e,f

ex:    #148923    #aabbcc    #c2c2c2    #000000    #ffffff

#abc

=> rgb

predefined function, used for color mixer

rgb(red,green,blue)

range => 0 to 255

ex:   rgb(10,15,40)

```html
<!DOCTYPE html>
<html lang="en">
  <head>
    <title>Page15</title>
    <link rel="icon" href="logo1.png"/>
  </head>
  <body style="background-color:#66ffff;">
    <!-- named colors -->
    <h1 style="color:yellow;
background-color:red;">Hypertext Markup Language</h1>
    <strong style="color:yellow;
background-color:red;">Cascading Style Sheets</strong>
```

```html
<!-- hexadec colors -->

<h2 style="background-color:#739568; color:#fbcdef;">JavaScript</h2>

<em style="background-color:#cc0000; color:#ccff00;">Jquery</em>


<!-- rgb -->

<p style="background-color:rgb(30,27,31); color:rgb(190,200,210); ">Editplus Is Sold "As Is" And Without Any Warranty As To Merchantability Or Fitness For A Particular Purpose Or Any Other Warranties Either Expressed Or Implied. The Author Will Not Be Liable For Data Loss, Damages, Loss Of Profits Or Any Other Kind Of Loss While Using Or Misusing This Software.</p>

  </body>
</html>
```

# example16

**CSS borders**

border ==> this prop used to draw a line around html elements

Syn:       border:thick  style  color;   <= it draws 4 sides

     border-left:thick  style  color;   <= it draws left side of tag

border-top:thick  style  color;  <= it draws top of tag

border-bottom:thick  style  color;  <= it draws bottom of tag

border-right:thick  style  color;  <= it draws right side of tag

border-radius ==>  this prop used to draw rounded/curved edges

Syn:        border-radius:Npx;

```html
<!DOCTYPE html>
<html lang="en">
  <head>
      <title>Page16</title>
      <link rel="icon" href="logo1.png"/>
  </head>
  <body style="background-color:#ffffcc;">
          <p style="border-bottom:3px solid; border-top:3px solid;">Editplus Is Sold "As Is" And Without Any Warranty As To Merchantability Or Fitness For A Particular Purpose Or Any Other Warranties Either Expressed Or Implied. The Author Will Not Be Liable For Data Loss, Damages, Loss Of Profits Or Any Other Kind Of Loss While Using Or Misusing This Software.</p>
          <h1 style="border:5px ridge blue;">Distribution of the evaluation version</h1>
```

```html
<!--  solid, double, dotted, dashed, inset, outset, ridge, groove,
none-->

        <img src="images/baby.webp" style="border:10px
inset #ff0000;"/>

    <p style="background-color:#006600;
border-radius:30px;">Editplus Is Sold "As Is" And Without Any
Warranty As To Merchantability Or Fitness For A Particular
Purpose Or Any Other Warranties Either Expressed Or Implied.
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Profits Or Any Other Kind Of Loss While Using Or Misusing This
Software.</p>

    <img src="images/tree.jpg" style="border-radius:50px;"/>

    <img src="images/tree.jpg" style="border-radius:20px
150px;"/>

    <img src="images/tree.jpg" style="border-radius:5px  15px
30px 50px;"/>

    <img src="images/tree.jpg" style="border-radius:50%;
width:400px; height:400px;"/>

  </body>

</html>
```

# example17

**CSS shadows**

box-shadow ==> this prop used to apply the shadow for html tags(for shapes)

   Syn:  box-shadow:Xpx  Ypx  color;

text-shadow ==> this prop used to apply the shadow for text/data

   Syn:  text-shadow:Xpx  Ypx  color;

```html
<!DOCTYPE html>
<html lang="en">
  <head>
      <title>Page17</title>
      <link rel="icon" href="logo1.png"/>
  </head>
  <body style="background-color:#ffffcc;">
          <p style="background-color:cyan; box-shadow:5px 5px;">Editplus Is Sold "As Is" And Without Any Warranty As To Merchantability Or Fitness For A Particular Purpose Or Any Other Warranties Either Expressed Or Implied. The Author Will Not Be Liable For Data Loss, Damages, Loss Of Profits Or Any Other Kind Of Loss While Using Or Misusing This Software.</p>
```

```html
<h1 style="background-color:blue; box-shadow:3px -3px red;">Please visit our home page to see known bugs and workarounds.</h1>

<img src="images/tree.jpg" style="box-shadow:1px 1px 15px blue;"/>

<h1 style="text-shadow:3px 3px #ff00ff;">Siva Kumar Y</h1>

  </body>
</html>
```

# example18

**CSS backgrounds**

background-image => this prop used to apply/to set background image for web page (wallpaper)

    Syn:      background-image:url(filename);

**supporting properties:**

    background-size

    background-position

    background-repeat

    background-attachment

```html
<!DOCTYPE html>
<html lang="en">
  <head>
      <title>Page18</title>
      <link rel="icon" href="logo1.png"/>
        <style>
            body{
                color:red;
                background-image:url(images/nature2.jpg);
                background-repeat:no-repeat;
            /* both or no-repeat or repeat-x or repeat-y */
                background-position:center top;
                background-size:auto;
        /* 600px 500px  OR 100% 100% OR auto OR cover */
        background-attachment:fixed;           /* or scroll */
                }
        </style>
  </head>
  <body>
```

<h1>Please visit our home page to see known bugs and workarounds.</h1>

<img src="images/baby.webp" />

<p **style="background-image:url(images/car.jpg); background-size:100% 100%;"**>Editplus Is Sold "As Is" And Without Any Warranty As To Merchantability Or Fitness For A Particular Purpose Or Any Other Warranties Either Expressed Or Implied. The Author Will Not Be Liable For Data Loss, Damages, Loss Of Profits Or Any Other Kind Of Loss While Using Or Misusing This Software.</p>

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   </body>

</html>

# example19

```
<!-- CSS  gradient coloros

                    linear, radial

linear-gradient => its predefine function, used to apply multiple colors as a background

        Syn:  background: linear-gradient(dir, color1, color2,...)

                    dir => to left, to right, to top, to bottom


Note: while applying gradient colors we must use "background" prop in place of "background-color"

-->
<!DOCTYPE html>
<html lang="en">
  <head>
```

```
<title>Page19</title>

<link rel="icon" href="logo1.png"/>

    <style>

        body{

            background:linear-gradient(to right,
#ff00ff,#3300ff);
/*          OR

        background:linear-gradient(to right, #ff00ff
50%,#3300ff 50%);

            OR

            background:linear-gradient(75deg, #ff00ff
40%,#3300ff 60%);

            */

            }

        </style>

  </head>

  <body>

    <h1>Please visit our home page to see known bugs and
workarounds.</h1>

        <p style="background:linear-gradient(to bottom,
#ff9900,#ffffff,#00cc00);">Editplus Is Sold "As Is" And Without
```

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<img src="images/baby.webp" />

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  </body>
</html>


## example20

<!-- CSS  gradient coloros

radial-gradient => its predefined function, used to apply multiple colors as a background

```
          Syn: background: radial-gradient(shape, color1,
color2,...)

-->

<!DOCTYPE html>

<html lang="en">

  <head>

      <title>Page20</title>

      <link rel="icon" href="logo1.png"/>

          <style>

              body{


background:radial-gradient(circle,#ff00ff,#3300ff);

/*              background:radial-gradient(circle,#ff00ff
50%,#3300ff 50%);*/

              }

          </style>

  </head>

  <body>

      <h1>Please visit our home page to see known bugs and
workarounds.</h1>
```

```html
<p style="background:radial-gradient(#ffff00,#ff0000,#00ff00);">Editplus Is Sold "As Is" And Without Any Warranty As To Merchantability Or Fitness For A Particular Purpose Or Any Other Warranties Either Expressed Or Implied. The Author Will Not Be Liable For Data Loss, Damages, Loss Of Profits Or Any Other Kind Of Loss While Using Or Misusing This Software.</p>

<img src="images/baby.webp" />

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  </body>
</html>
```