The Internet

Submarine cable map.com

| | | | Server |

| www.google.com | Internet Service Provider | Domain Name System |

Client   I.S.P   D.N.S

when a client request something on the browser like he/she requesting for google home page. The request go through the Internet Service provider and after that provider send it to domain name system where we get the exact IP address of that requested URL (Uniform Resource Locator) and than our requested IP address URL Reaches on that Server where it is located and when server find out the exact request it send to the client machine.

How website works?

The requested material or pages we get from the browser is consist of HTML, CSS & Javascript.

HTML is the Structure of the website.

CSS is used for styling the website provide beauty to our website.

Javascript is like brain of the website. how

This website actually works. it allows your website to do things and behave.

HTML

HTML stands for Hyper text markup language.

HTML is the standard markup language for creating web pages.

It describes the structure of a web page.

It consists of a series of elements.

It of HTML elements tell the browser how to display the content.

HTML element label pieces of content such as " heading" , " paragraph" , " link" etc.

A Simple HTML Document.

```html
<! DOCTYPE html>

<html>
<head>
<title>           </title>
</head>
<body>
<p> This is para </p>
</body>
</html>
```

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

< tagname > Content part </ tagname >

Some HTML elements have no content < like the <br> element. The element are called empty element. They do not have end tag

Heading HTML

HTML heading are titles or subtitles that you want to display on a web page.

HTML heading are defined with the <h1> to <h6> tag.

<hr> tag

This tag is use to create a horizontal rule on the web page

Attributes are additional property of an html elements

align, noshade, size, width → hr attribute

 → used for line breaking

<img tag>   URL for addressing to the
                           ↗ next page   ↗ what the pic
                                                   is all about

Anchor tag → This attribut carried out the path for next page.

```
< a href = " https://www.google.com> Google </a>
```

HTML Table

```
< table >
                → This tag is for table row
    <tr >
    <td> Abhi </td> → This tag holds the table data
    <td> 29    </td>
    </tr>

    <tr>
    < td> Anu </td>
    <td> 25 </td>
    </tr>
</table>
```

HTML Form

```
<form>

    <label> Name :  </label>
    <input type = "text" >

    <input type = "Submit" />

</form>
```

label displays the info to the user what to input

HTML (Hyper Text Transfer + Markup Language)

HTML Structure

In HTML we use tags → Element

```
< open Tag> Content </close Tag>
```

```
<html>
Main html coding
</html>
```

Main structure of HTML Webpage → the DOCUMENT
```
<!DOCTYPE html> → This is HTML
  <html>  ← META Information → extended CSS file
    <head> </head>
    <body> </body>  → Main Content
  </html>
```

Heading Tag <h1>

```
<! Doctype html>
<HTML>
<head>
<title> first web page </title>
</head>
<body>
<h1> Heading </h1>
</body>
</html>
```

paragraph tag

```
<body>

<P> This is paragraph </P>
```

break tag

```
<P> This is paragraph <br> Next line exist </P>
```

Exercise Soln

```
<!DOCTYPE html>
<html>
<head>
<title> Exercise - Solution </title>
</head>
<body>
<h1> My Blog </h2>
<br>
<br>
<br>
<br>
<h3> My Blog Post 1 </h3>
<P> lorem150 </P>
<h3> My Blog Post 2 </h3>
<P> lorem150 </P>
</body>
</html>
```

Add links to your website (Anchor tag)

```
<body>
<a href = "http://google.co.in" target ="_blank"> Go to Google
</a>
```

```
<a href = " thankyou.html"> </a>
  </body>
```

what about if the page is in another folder

```
<body>
<a href = "./pages/ thankyou.html"></a>
</body>
```

now from Thankyou page i have to turn back to index.html page.

```
<body>
<a href = "../Index.html"> Home </a>
</body>
```

Exercise Solution related to links

```
<! DOCTYPE html>
<html>
 <head>
<title> Go to Google </title>
</head>
<body>
<P> click here to go to <a href = "https://google.co.in"
target = " _blank" title = "Google is the most popular
search engine used all across the world> Google </a>
</P>
</body>
</html>
```

How to add images to website

→ describe image

```
<body>
<img src = "./boy.jpg" alt = "cute little boy">
<img src = "https://source.unplash.com/random/600x400"
alt = "">
<img src = "/?nature" alt "this is nature image">
<↓ query string
</body>
```

HTML list

Ordered list

```
<body>
<ol type = 'A'>
<li> Abhi </li>
<li> Anurag </li>
<li> jarvis </li>
</ol>
</body>
```

Unordered list

```
<body>
<ul style = 'list-stype style-type: circle;'>
<li> Abhi </li>
<li> Anurag </li>
<li> jarvis </li>
</ul>
</body>
```

description list

```html
<body>
<dl>
<dt> Guitar </dt>
<dd> Guitar is 6 strings instrument </dd>
<dt> Ukulele </dt>
<dd> Ukulele is 4 strings instrument </dd>
</dl>
</body>
```

HTML Tags for text formatting

```html
<strong> Abhi) </strong>    <b> Abhi </b>  → bold
<em> flask </em>   <i> flask </i>  → Italic
<sub> or </sub> → subscript
<sup> was </sup> → superscript
```

Ex: for Sub & Sup :-

```html
<p> H <sub> 2 </sub> O </p>
```
$H_2 O$

```html
<p> 4 <sup> 3 </sub> </p>
```
4^3

```html
<mark> Anurag </mark>
```

Create Table in HTML

```html
<body>
<table> border = '1' >
<thead>
<tr>
<th> First name </th>
<th> last Name </th>
</tr>
</thead>
```

```
< tbody>
< tr>
< td> Abhishek < / td>
< td> Mishra < / td>
< / tr>
< / tbody>
< / body
```

HTML Form Part1 :- Ipu Input & labels, Action, Method, Nar
Name

```
<body>
<h1> HTML FORM </h1>  <br> <br>
<form action = "index.html"  method = "GET">
< label for = "username"> username:  </ label>
<input type = "text"  id = "username"  name = "username">
< br>   <br>
< label for = "password"> Password : </ label>
<input for type = "password" id = "password" name = "Password
< label for = "email"> Email: </ label> <br> <br>
<input type = "email" id = "email"  name = "email">
< br>  <br>
<input type = "submit"  value = "Sign in">

</ form>
</ body>
```

HTML form : Placeholder & required

```
<body>
<label for = "username"> username :   </ label>
```

```html
<input type="Text" id="username" Placeholder" username"
required>
    </body>
```

Radio Button

```html
<body>
<label for="Male"> Male </label>
<input type="radio" id="Male" name="Gender">
<label for="Female"> Female </label>
<input type="radio" name="Gender" id="FMale">
<label for="other"> other </label>
<input type="radio" name="Gender" id="other">
    </body>
```

Drop down list

```html
<body>
<form>
<label for="Course-type"> Course type: </label>
<select name="course-type" id="course type">
<option value="Select"> -- Select --</option>
<option value="BCA"> BCA </option>
</form>
    </body>
```

More HTML Form Ed Elements

Text area

```html
<body>
<form> <p> comment below </P>
<textarea name="" id="" cols="30" rows="10" placeholder=
"type here"> </textarea> </form> </body>
```

color

Pick Color: <input type = "Color" name = " " id = " ">

Date: <input type "Date" name = " " id = " ">

file

<input type = "file" name = " " id = " ">

id & classes attributes

mainly classes are used for styling purpose

On one web page classes can be repeat but id can only be written ato once. id are uniquely identified.

```
<head>
<Style>
.heading1{
color: red; }
# para{
color: brown;
} </Style> </head>
<body>
<h2 class = ' heading1'> This is heading </h1>
<P id = ' para'> lorem40 </P>
</body>
```

Container
Div & Span tag

```html
<head>
<style>
.container1 {
background-color: black;
color: aliceblue;
}

.container2 {
background-color: red;
color: black;
}

</style>
</head>
<body>
<div class = 'container1'>
<h2> heading </h2>
<ul>
    <li> list item </li>
    <li> list item </li>
    </ul>
</div>
<div class = 'container2'>
    <h2> heading 1 </h2>
    <img src=" logo.png" alt = "HTML LOGO">
<p> lorem@20 </p>
    </div>
    </body>

    <h2> heading <span class = "cls1"> two </span>
```
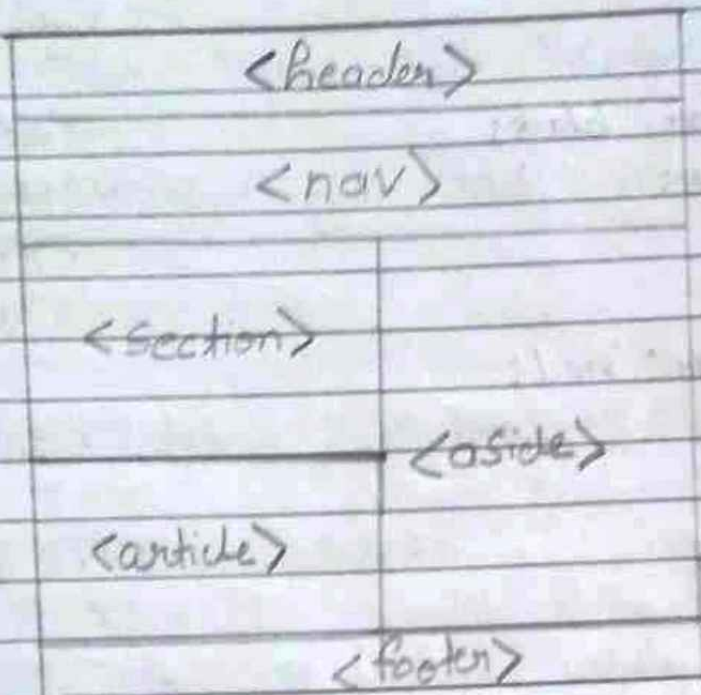
Semantic Elements

```
+-------------------------------+
|         <header>              |
|                               |
+-------------------------------+
|          <nav>                |
+------------+------------------+
|            |                  |
| <section>  |                  |
|            |    <aside>       |
|            |                  |
| <article>  |                  |
+------------+------------------+
|         <footer>              |
+-------------------------------+
```

HTML Entities

Sometimes we have to add some kind of symbols in our website which is not available on keyboard. like Copyright & angle bracket

Copyright = ©

2 < 5 = 2 < 5
2 > 5 = 2 > 5
& = &
space =

Meta tags

<meta charset = "UTF-8"> all most all characters is readable for our webpage.

author

```
<meta name = " author" content = " Harshit ">
<meta name, description "    content = " Meta tutorial">

<meta name = "keywords"  content" lesson, tutorial, HTML>
```