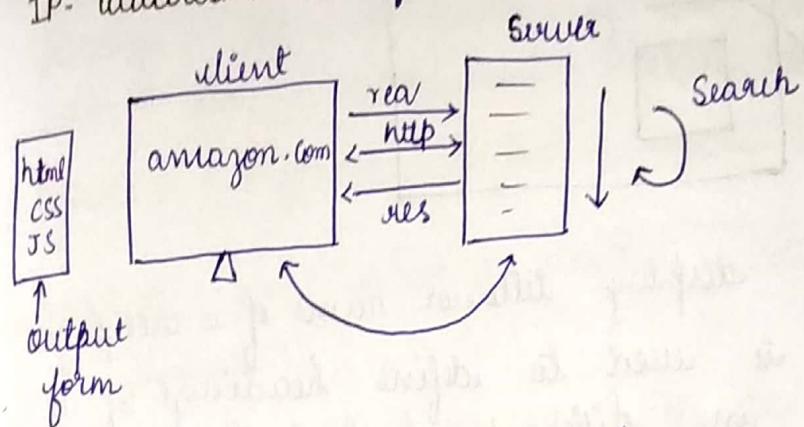


Domain : www.name.com

IP- address : unique address. ex: 1.24.63
server



HTML : Hyper text mark up language.

HTML → Structure
CSS → styles
JS → functions

→ Tags or elements :

→ Single Tags < Tagname />

→ Double tags < Tagname> — < tagname>

Structure of HTML :

<html>

< head > < /head >

< body >

</body>

</ html >

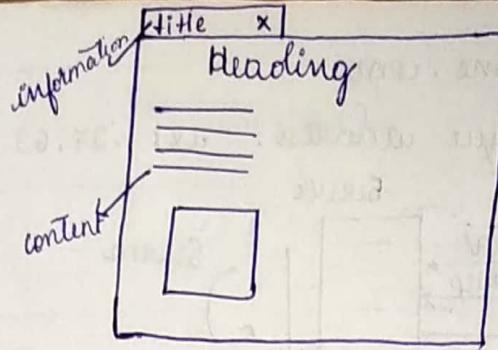
HTML is a markup language used for web development. All the content for a web page is written using tags or elements.

`<html>` → It specifies the root of an html document.

`<head>` → Head tag represents the metadata of an html document.

<body> → Body tag represents the content of a html document.

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



<title> → Used to display title or name of a webpage.

<heading> → It is used to define headings of a page in different levels & it is done by h1, h2, h3, h4, h5, h6. The most important heading is written using h1 tag.

→ The font size goes on decreasing from h1 to h6.

→ By default all the headings will be bold.

<paragraph> :

- p tag is used to display paragraphs or long descriptions.
- paragraphs will be regular sized texts.

 : line break

 : non-breaking space

 : horizontal rule.

Attributes :

br tag:

It is a single tag that is used for line breaks and pushes all the contents that comes after the br tag to the nextline.

hr tag:

This is used to draw an horizontal line to separate two divisions or sections.

 :

This stands for non-breaking spaces used to give space in between the contents.

Attributes:

- Attributes are the properties that has the ability to change the behaviour of an element and also adds the additional functionality for the element.
- Syntax: < tagname attribute = "value" > — </>

→ Attributes are always written within the start tag of an element.

→ Images can be displayed with the help of img tag

→ Image tag is a single tag that has four attributes: src (source) → This contains the path or an address of an image.

height & width → Used to alter the height and width or resize the image.

alt (alternate) → When the image fails to display, the text written within the alt attribute will be displayed as an alternate for the image.

Character formatting tags:

* Bold → ,

* Italic → <i> ,

* Underline → <u> , <ins>

* Big → <big>

* Small → <small>

* Strike → <strike>

* Delete →

* Subscript → <sub>

* Superscript → <sup>

| Favourites | | | |
|------------|--------------------|----------|--|
| wiki | 1. celebs | → scroll | |
| trailer | 2. Movies | → alt | |
| trailer | 3. TV shows/series | → sleep | |

Marquee tag:

Marquee tags are used to create scrolling contents.

Attributes of marquee tag:

1. Behaviour:

- * It specifies the type of scroll.
 - scroll (default)
 - alternate
 - slide

2. Direction:

- * It specifies the direction in which the content should scroll.

- up → Right
- down → Left

3. Scroll amount:

- * Using this attribute we can control the speed of scroll.
- * Higher the value higher the speed.

4. Bg colour:

- * Used to change the background colour of marquee section.

5. Height & Width:

- * We can alter the height and width of marquee section.

6.

Links:

Anchor tags:

Anchor tags are used to create links that help us to redirect or navigate between different web pages.

Attributes of anchor tags:

href [hyper reference] → It specifies the destination path

- or address of the link.
- The href value can be url's of the different web page or path of specific file.
 - target:
 - It specifies where to open the destination page.
 - By default all the links opens within the same page and "-blank" will open the page in a new tab or a window.
 - Images can be made as link by writing the image tag within the anchor tag.

Media tags:

- We use video and audio tags to display media files like mp3 files or mp4 files.
- Attributes:
 - * src (Source) → It defines source or path of the file.
 - * controls → This attribute gives various options to control a video or audio file [play, pause, accelerometer, mute, unmute]
 - * Muted → It mutes the video or audio by default.
 - * Autoplay → This plays the file as soon as the page loads.
 - * poster → It displays an image before the video starts playing
 - * loop → The video or audio file keeps on playing continuously.
 - * height & width → we can alter the size of the video file.

Note: audio tag does not support poster, height and width attributes.

Lists:

To display similar type of items, we make use of 3 types of lists in HTML.

→ Unordered list:

- * It is denoted by `` where there is no importance for the priority of the items.

``

li
li
li
li

``

- * All the list items are written within the `` tag.

Attributes:

- * `type` → It specifies the type or style of the unordered list:

- disc [default]
- circle
- square

→ Ordered list:

- * This is used to display list items where the priority is given importance.

Attributes:

- `type`: It specifies the type or style of ordered list.

Numbers

Upper Roman

Lowercase Roman

Uppercase alphabets

Lowercase alphabets

- `start`: It specifies the start index of the ordered index

- The value for start attribute will always be number.

Description list :

- It is denoted by `<dl>` tag which is used to describe a list of terms.
- The term is written with `<dt>` tag and `<dd>` tag is used to write the description for the term.

`<dl>`

`<dt>` `html` `<dt>`

`<dd>` `<dd>`

`<dl>`

Frames :

This element is used to display an online document or a video in your webpage.

Attributes :

- `src` : contains the source of the document.
- `frameborder` : adds an outline border for the document. When the value is one else zero.
- `allow` : It contains all the youtube supported features for a particular video.
- `allowfullscreen` : It enables the fullscreen option for a video.
- `height & width` : Used to set the height & width.

Metatags :

- Metatags are snippets of the code that describes a page content.
- The metatags will not display on the webpage and instead sends the necessary information that helps the browser or the search engine what a web page is all about.
- Metatags can contain data like author information, description about web pages, keywords related web pages, etc.

Tables:

Tables are used to display the data in terms of rows and columns. HTML uses table tag to design a table which gives outer structure for a table. In order to create rows for a table we use `<tr>` tag.

→ Data in the table can be headings and values where headings are written using `<th>` and `<td>` is for data or values.

| th | th | th | th |
|----|----|----|----|
| td | td | td | td |
| td | td | td | td |
| | | | |

↓
data

rows
`<tr>`
`<td>`
`<td>`
`<td>`
`<table>`

Rowspan & Colspan:

Rowspan & Colspan are the attributes given to `<th>` and `<td>` tag which is used to specify the number of rows or columns a single cell should merge.

Rowspan attribute is for merging more than one row.

Colspan attribute is for merging more than one column.

Forms:

- A HTML form is used to collect user inputs and sending it to the server for further processing.
- Form element is used to create an HTML form where the data or values are entered using input tag.
- Label tag is used to name a particular input tag.

text area: for larger inputs we use text area tag where the size can be varied using rows and column attributes.

Select tag: It creates a drop down list where the user can select from the list of options.
→ options are displayed using the option tag.

Attributes of input tag:

1. type:
→ It specifies the type of input that a user should enter.

- text
- tel
- number
- email
- password
- date
- radio
- file
- checkbox
- submit
- reset

2. Name:
→ It specifies the key where the value will be stored in the backend.

3. Placeholder:
→ Used to display texts within the input field before the user enters the data.

4. required:
→ Used to make an input field mandatory.

5. Minlength & Maxlength:

→ It specifies the number of characters that must be entered in the input field.

6. Min and Max:

→ Specifies the minimum & maximum value that a user should enter.

7. Action :

It specifies the action to be performed once the form is submitted.

8. Button

CSS:

- CSS stands for cascade style sheet.
- Cascade style sheet is used to apply styles for html elements.
- There are three ways of adding CSS for an html file.

i. Inline CSS:

- * Adding styles for an individual element with the help of style attribute.

syntax: < Tag style= "type of style : value;">

ii. Internal CSS:

- * Used to add styles for multiple elements or writing general styles with the help of style tag.
- * Style tag must be written within the head section.

syntax: <style>
selector {
 type of style : value ;
}
</style>

iii. External CSS:

- * Writing styles in a separate css file and then linking it to the html document with the help of link tag.

syntax: <link rel= "stylesheet" href= "filename.css">

Selectors:

CSS selectors are used to find or select the html elements that we want to style.

i. Element Selector:

- It is used to select elements based on their tagname.
- Element selector selects all the specified tags in the html document.

Ex: `h1 {`
 |
 | element name
 | || style
 | }
 ||

ii. Class selectors:

- It selects the html elements based on the given class name.
- Class names can be given with the help of class attribute.
- To select the class names in CSS we use (.) dot that acts as class selector.

Ex: `.classname {`
 |
 | || style
 | }
 ||

iii. Id selectors:

It selects the html based on the given Id names.

Id names can be given with the help of Id attribute.

To select the Id names in CSS we use (#) hash tag that acts as Id selector.

Id names must be unique in an html document

`# idname {`
 |
 | || style
 | }
 ||

Universal selector :

- Used to select all the elements in html document.
- * acts as universal selector.

Ex: * {
 // style
}

Group selectors :

- Used to select multiple elements at once.

Ex: h1, h2, p {
 // style
}

Descendant selectors :

- Used to select a specific child element within a parent division or a section.

Ex: div p {
 // style
} → child element.
parent element

Pseudoclass :

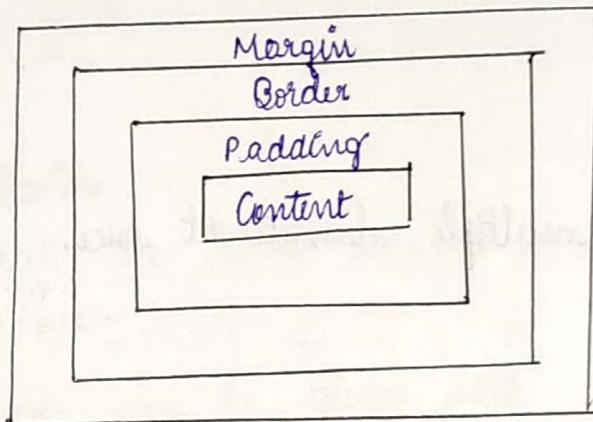
- These are used to add style to selectors but only when selectors meet certain conditions.
- Pseudoclasses are written using colon (:) Ex: Active, Hover

Pseudo-elements :

- It is a keyword added to a selector that lets you style a specific part of the stem selected element.
- Double colon (::) is used to write pseudoelements.
Ex: After, before, first-line, first-letter.

Box Model:

Using Box Model we can specify how an element should be displayed on the web page by giving properties like padding, border and margin.



The innermost layer of the box model will be the content.

Padding: It is the space between content & border or inner spacing.

- Padding values will be applied on the four sides of the content when given single value for padding.
- $1v\text{-padding} \rightarrow 10\text{px}$ four sides
- 2v - padding → Top - bottom left - right
- 3v - padding → Top left - right bottom
- 4v padding → Top right bottom left.

→ **Border:** Border for a content can be specified using three values

- Border size
- Border type → Solid, double, dashed, dotted.
- Border colour

Ex: border: 10px solid white;

→ To curve the edges of border we use border-radius property.

Margin: It defines the space between one or more elements

→ It follows the same syntax as padding.

Box Shadows & Text Shadows:

→ Box shadows are used to give shadow effects for a division or a section. Whereas text shadow are for text.

Syntax: x-offset y-offset blur color ;

Display properties:

→ It specifies how an element must be aligned or structured in a web page.

1. Block:

The elements that are block-level will be displayed one by one & occupies 100% width of the page.

2. Inline:

All the elements will be displayed in the same row where height and width properties will have no effect on the elements.

3. The Inline-Block:

Displays all the elements in the same row and also supports height & width properties.

4. None:

The element will not be displayed in the html document.

3. flex: display flex:

This property is used to structure the elements in rowwise or columnwise by giving space allocation for individual elements within the flex area.

properties:

1. flex-direction:

It specifies from which direction the elements should be aligned.

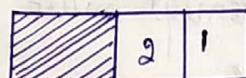
i. row



ii. column



iii. row-reverse



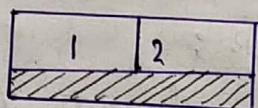
iv. column-reverse



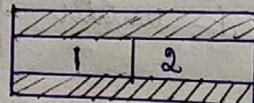
2. align-items:

This property is used to align the items vertically in flex area.

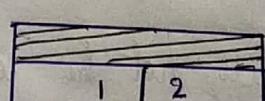
values: flex-start



center



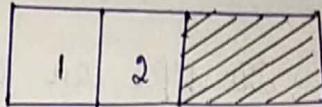
flex-end



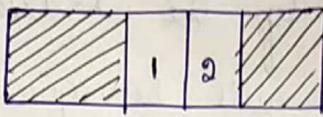
3. justify - content:

This is used to align the elements horizontally in the flex area.

values: `xit start`



`center`



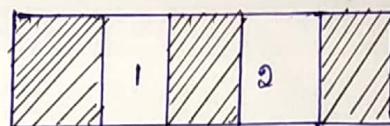
`end`



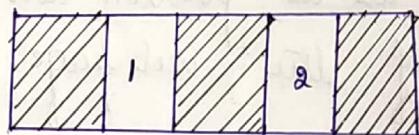
`space - between`



`space - evenly`



`space - around`



Transform properties :

It helps us to transform an element from one form to another form.

`xit Rotate :`

It rotates an element in terms of degrees.

`xit Skew :`

It distorts each point of an element by a certain angle in horizontal or vertical directions.

Horizontal \rightarrow `SkewX()`

Vertical \rightarrow `SkewY()`

`xit Scale :`

It allows us to resize an element.

→ Scale > 1 will increase the size and scale < 1 will decrease the size of an element.

2nd Translate :-

- It allows us to transfer an element from one place to another along the X-axis and the Y-axis.
- Translate values will be given in pixels.

3rd Transition :-

It helps us to change the property values smoothly over a given duration of time.

Positions :-

It helps us to position an element at the specific point of the web page.

2nd Static :-

- HTML elements are positioned static by default.
- These elements are not affected by top, bottom, left and right properties.

2nd Relative :-

- The element is positioned relative to its original position.
- Setting the bottom, top, left & right properties will move that element from its normal position & other elements will not be affected.

2nd Absolute :-

- It positions an element from initial point of the webpage (body) and these elements can overlap other elements in the page.

2) Fixed:

The element will be fixed permanently at a specified position and will not be included among the original document flow.

3) Sticky:

- The element will be positioned based on the user scroll position.
- The element will behave as a normal element & gets fixed once it reaches a certain point of the webpage.
- A sticky elements toggles between relative + fixed depending on the scroll position.