**FrontEnd Batch**

**HTML** (Hypertext Mark-up Language)**:**

**Tags:**

Div,span,p,h1 to h6,a,input.

**Types of Tags:**

1.Self closing Tags: Ex:<img/>

2.Double Closing Tags Ex:<div><div/>

**Div:**

Its block element when we use div tag it occupies the entire space on screen by default

**Span:**

Its inline element it occupies only space of the content. In exception case if we use p or h tags inside span it occupies 100% width why because h and p tag normally consists of 100% width.

**H1 to h6:**

These h tags usually represent heading and 1 to 6 indicates the bold and size.Every number in h tags are contains specific size and weight.

**A:**

A tag usually represent link tags used to navigate to some other page or url.A tags has multiple attributes which allows us to open the url in same page or new page.

**Input:**

Input tag nothing but user can enter values in multiple ways like text,number,date and time,checkbox,and radio button.

**Button:**

Button tags name itself represent this is used to submit a form. Ex:<button>Submit<button/>

**Table:**

Syntax of table tags:

<table>

<tr>

<th> Name</th>

<tr/>

<tr>

<td>XYZ<td/>

<tr/>

<table/>

**Comments:**

Comments are used to identify the other user’s to understand what we had done in this code.Ex: <!-- Write your comments here -->

**HTML5 Features and Tags:**

**Header and Footer:**

Usually we can able to design the header and footer of the page using normal div and for understaning logics we can also make use of header and footer tags.Ex:<header><header/>

<footer><footer/>

**Audio and Video:**

Audio and video tags usually use to play audio or video content in screen. Both tag contains multiple inbuilt functions like autoplay which will play when page reloaded and mute will mute the audio in beginning.Ex:<audio><source src=”audio.mp3”><source/><audio/>

**Img tag:**

Img tag used to insert image into the screen we can also modify the height and width of image using inbuilt functions. Ex:<img src=”123.jpeg”/>

**Localstorage:**

Localstorage is mostly used in real time scenarios also to logout the user after certain period such that 24 to 48 hours.These things are mostly used in day to day applications like amazon,facebook and flipkart.Hence it stores some token in our computer for certain period of time.These feature can be achieved with help of javascript.

**Figure and FigCaption:**

Image and Figure tag are mostly common but here figcaption tool used to give caption for the image.

Usage:

<figure><img src=’img.jpeg’/><figcaption>name of the image<figcaption/><figure/>

**Nav:**

Nav tags used to place content in top of the page which we had seen the application has some Home,Service and about option in top right corner.

**Progress:**

Progress tool is most important tool used to know how much is completed here we have to define two attributes one is max and other is value.

**Placeholder Attribute:**

Placeholder attribute used to be in default on input tag.Mostly used to tell the user what they can enter in particular input tag.Ex: <input placeholder=”Enter your name”/>

**List:**

UL represent unorderlist and OL represents Ordered List.

EX:

<ul>

<li>Home<li/>

<li>About</li>

<ul>

**CSS3:**

**Background:**

background-image:url(“img.jpeg”) [Used to insert image in the background]

background-size:contain(Adjust the image size according to the container) or cover(Enlarge the image size) or we can give pixels

background-repeat:repeat(by default) [Will repeat the image to cover the div) no-repeat[Not repeat the image)

background-position:left,right,top,bottom [helps us to place image in required places]

background-attachments:fixed[will not move image when scroll] or scroll[scroll image along with content]

**Border,Margin,Padding:**

Border has multiple property like border top,bottom,left,right color.But we can use short end property like border:1px(border left right top bottom) solid(border- width) black(border-color).

Same as border margin and padding also has the same attribute but we can use shorthand property like margin:10px and padding:20px;

**Height and Width:**

* + Min height represent the height will give take atleast 100px and max height represent maximum height of div ie.atmost 200px.Max height allows us to enable scroll option.
  + Width also had same properties like min and max.
  + Height and width we can give it in pixels,percentage and vh(view height-for height),vw(view width-for width)

**Fonts or Text:**

Font-style:italic,normal

Font-size:10px

Font-family:Times new roman

Color:blue

These above are the attributes of fonts and text used to customize the fonts and change the style.

**Icons:**

If we want use icons first we want to import CDN link from bootstrap,fontawesome.With the help of their customized class we can able to use the icons.

Ex: <i class="fas fa-cloud"></i>

**Display:**

Display:none(hides the element),block(display the content in horizontal manner),inline(display the contents in vertical manner),inline-block(same as inline but also we can able to give height and width),flex(display the content in row and column wise,mostly used style in css).

**Position:**

Position:absolute(overlaps the another div),fixed(stays in same place),relative(places below the div)

These position tags will be used with combination of left right top and bottom property.

**Z-Index:**

Z-Index property allows the picture to overlap or placed behind based on values given.

z-index:-30 place the img behind the content.

**Overflow:**

Overflow:hidden(hides the content if the div doesn’t fit the content),scroll(allows the content to read by scrolling into horizontal or vertical).

**Opacity:**

Opacity:0 hides the element and opacity:50 shows the image partially.

**Pseudo-class:**

This refers to mouse action for example div:hover{ we can add styles here}

**Pseudo-element:**

This refers to particular letter for example p::first-letter{we can make styles here}

**Comments:**

Comments are used to identify the other user’s to understand what we had done in this code.Ex: /\* Write your comments here \*/

**Counters:**

This style used to give automatic numbering system.

Usage:

body {  
  counter-reset: section;  
}  
  
h2::before {  
  counter-increment: section;  
  content: "Section " counter(section) ": ";  
}

**Transistion:**

Transistion usually enables smoothing of action designed by CSS.We need to add transistion to parent of element and transistion will work with combination of pseudo class elements.Transistion has multiple attributes such as  transition-property: width;  
transition-duration: 2s;transition-timing-function: linear; transition-delay: 1s;

Ex: div{transistion:1s ease-in;}

div:hover{width:300px}

**Transform:**

Transform is used to move or rotate or enlarge the element.

Ex: transform : translateY(100px) moves in y direction same for X also. And transform:rotateX(200deg) rotate the object in 200degree and transform:scaleX(10px) enlarges the element

**Shadow:**

Shadow will add shadow around box or text and we have property like [text-shadow: 2px 2px 5px red;] and for box [box-shadow: 2px 2px 5px red;]

**Animation:**

Animation is same as transition property we have to give animation in parent element but here we have to declare new name for animation for example:

Ex: div{background-color:red;animation:example} after this we have to create @keyframes and assign the animation name to it ex: @keyframes example{background-color:blue}

Other inbuilt properties of animations are:

animation-delay, animation-iteration-count, animation-duration…

**BootStrap:**

What is bootstrap?

Bootstrap is a CSS framework where creators modified the designs and we can take their design by simply adding class name or id.

How to use?

In order to use bootstrap we need to link CDN link in our HTML.This link can be found in official bootstrap website.

**Reference to learn HTML and CSS:**

<https://www.w3schools.com/css>

**Projects to be done after this:**

1.Create simple portfolio website

2.Display a any name with animation.

3.Take reference of any single page website and design exactly