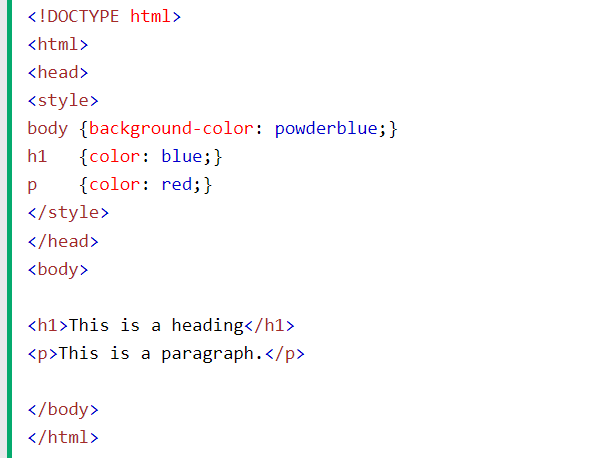
**CSS (Cascading Style Sheets)**

CSS is used to implement style in our web pages. We have actually three ways of doing this first is

**Inline CSS** in this we actually write the style itself in the tags like Jhan body me background colour ya background image ki jarurat hai to usi mai sidhe tag dal ke kar diya. Par isse agr apko apke sare page mai same type of theme ko implement karna hai to wo nhi ho pta hai,

**Example: <tagname(eg body, h1, div, etc) style="background-color: red">**

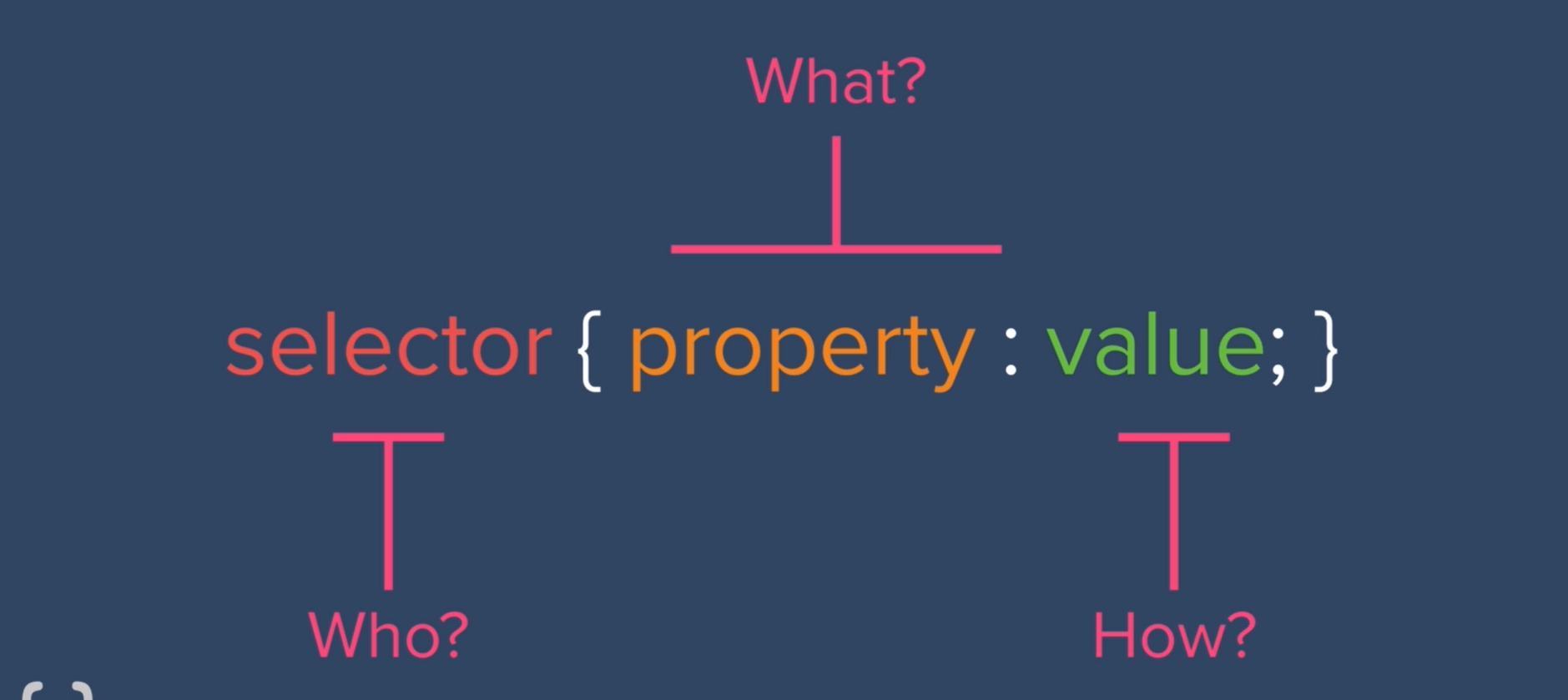
**Internal CSS**  in this we basically define the style for the page mtlb ki hmne head ke upr ek alg se <style> </style> ke bich mai hm define karte hai themes ko and wo pure ke pure pe broadly rhta hai implemented .



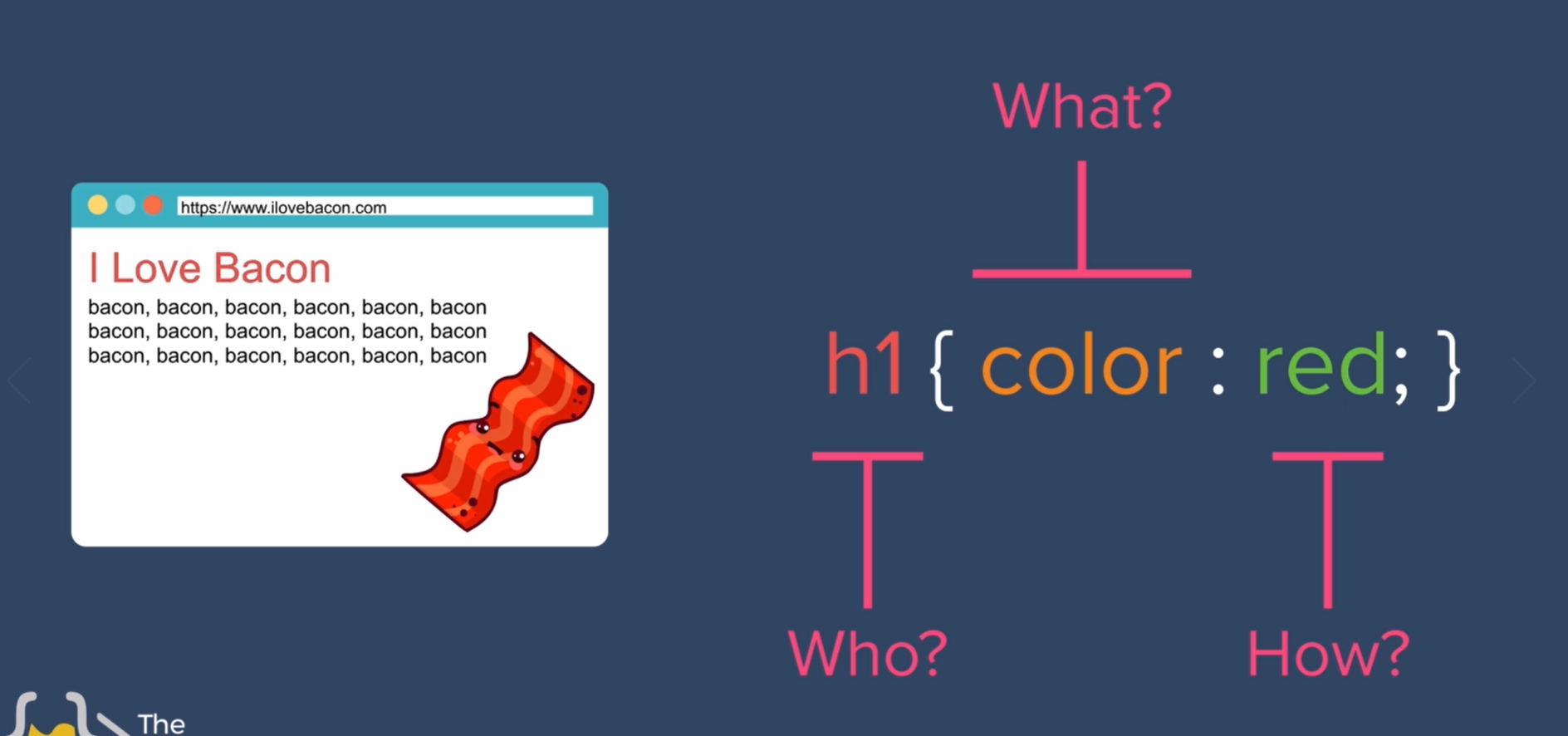
**External CSS** in this we actually make a css file outside the html file ad then link that to our rewuired page using link tag that is as given <link rel = “stylesheet” href = “/css/cssfilename.css”>

However, all the strongest preference ka order inline then internal and then external means ki agr inline and internal define hai dono to bhi inline ka hi use karega wo block whi local ka use hota hai global ka nhi.

Now lets see once the syntax of css file.

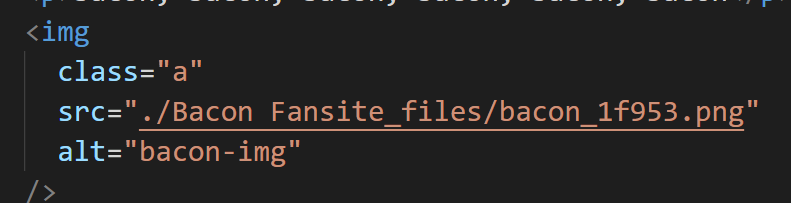


Example of the css how we do actually and this method of defining is called **tag selector** ki aap pure tag ko genralize karke hi sab kuch implement kar dete hai.

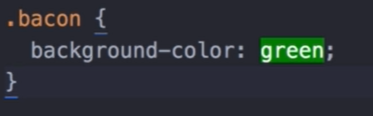


Now in case agr apke pas multiple image hai and ek pe aap ye style and dusre aap wo style dena chahte hai to us case mai kya karte hai ki hm phle to us tag ko seprate alg se ek class keyword se uska class define kar dete hai and then iske bad hm phir us class ka koi nam dete hai and while defining in css file we define classselctor and wo kese hota hai to **.classname** jo bhi class name apne diya hai and then aage ka kar do and ye sab ke sath kar skte ho sirf img ke sath hi nhi

First define class

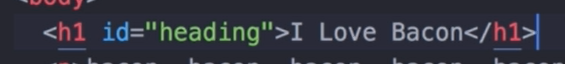


This is **class selector**

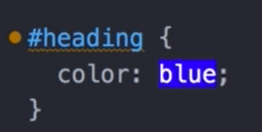


Same way hmare pas **ID selector** bhi hota hai yha class mai .classname karte hai Id selector ke liye #idname karte hai to difference kya hai to point s ki jab aap id ka use karte hai to ek id ke do jgh object nhi ho skte ek id ek hi tag ko reference karega while class can do a lot.

How we define id



And how we define id selector



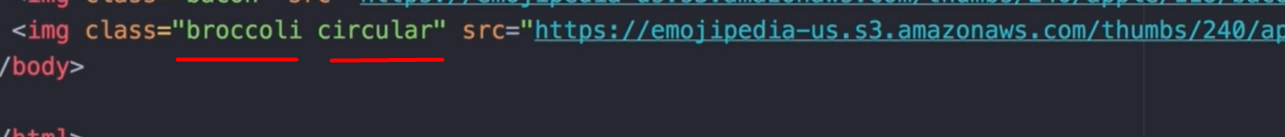
Eg ki tag selector hua pura global wo sare jitney bhi image pe apply hona chahta hai. class selector hua thora sa local usme wo jese ki jitney bhi dp ho unka border cicle rkhna hai wo dekh liya aab. id selector thora aur specific hoke wo usi ek image ki hi bat karega

And whi sbse superior id ka call hai agr agr id selector defined hai to class aur tag selector ignore hoga

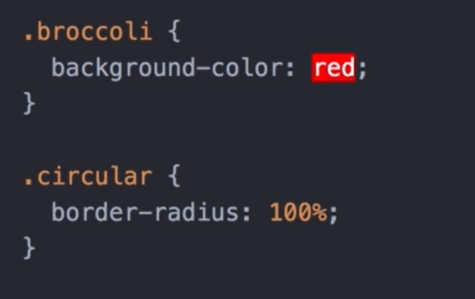
**Multiple class refernece**

Agr hmne space dal ke ek se jada name mention kiya hai “classa classb ” ke andr to it means ki wo multiple classes ko reference kar rha hai and aap .classa{} mai jo likhoge wo bhi aur .classb{} mai bhi jo likhoge wo dono hi apne mai wo implement karega.

So in class you can inherit two class



And define class selectors separately and both will be used.

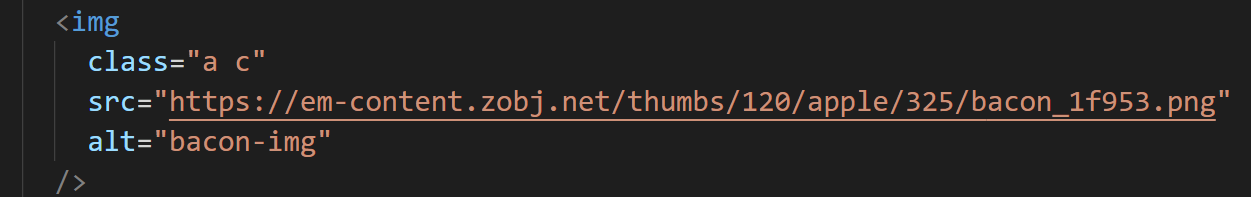


Key point ye aap id ke sath nhi kar wo ek bar mai ek hi ho skti hai object ki id no multiple allowed.

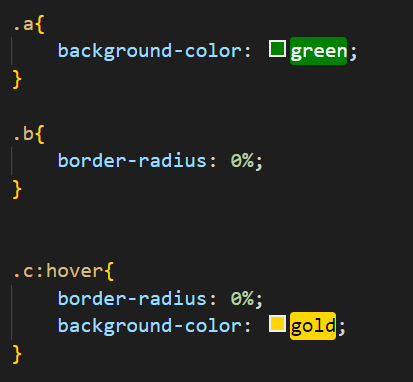
**Psudo class:**

Pseudo class mai aap kya karte hai ki aap tag ya class ke sath hi use karte hai us pseudo class ko example hover and ye apko allow karta hai kuch special feature ko implement karne ko like color change 0n hover type chije. There are a list of such function

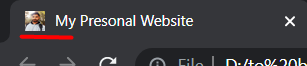
Multiple class inherited



And this is how we define psedo class selector



**Favicons** to create a faviocon

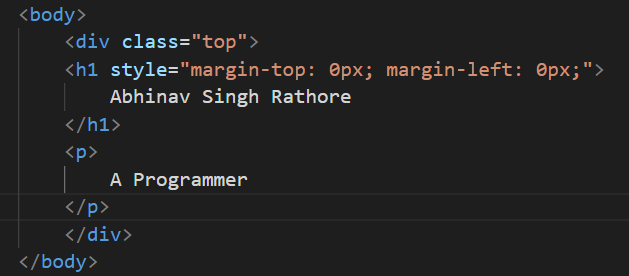


These icons can be linked to your site using

<link rel="icon" , href="relative address of icon" />

**Division <div>:**

Division in HTML used to define a block in which certain components can be club together Agar kuchh element ka a particular group banana chahte Hain Ek box Mein as in pack karke rakhna chate hai so hum us element ko ek **<div> </div>** ke andar define kar sakte hai jiska Syntax hai



By default body Mein ya heading Mein kuchh margin hote Hain jinhen Agar AAP remove karna chahte Hain toh either inline CSS Ki help se ya fir external CSs ki help se ya anyway in code hm remove kar sakte Hain.

In this you can also specify the type of border like valid hoga dotted hoga ye kaisa hoga. saath Mein you can also mention padding in that box like other aapne abhi pesticide Vale se dekha ho to har element ke border ko box represent karta now in case you want key Us box Mein kuchh padding ho Jaya margin ho jaye to wo bhi AAP add kar sakte Hain and in sabke alava if you also want ki uska colour ho kuch if permissible to who bhi AAP append kar sakte Hain.

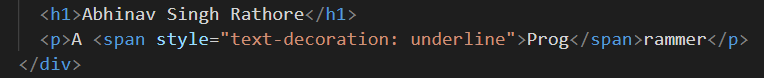
**Margin:**

Tum margin bhi add kar sakte ho Agar kisi element ke saath chaho to or margin ka matlab to Pata hi hai Ki Agar hamen direct us point se start karna ho to hum margin dalte. And there also exists by default margin in body you can also remove that

**Padding:**Padding ka matlab hai Ki within box he AAP chahte ho Ki kuchh space her point se ya fir special point se chut Gaya taki wo corner edges of element ko touch karta Hua nahi lage.

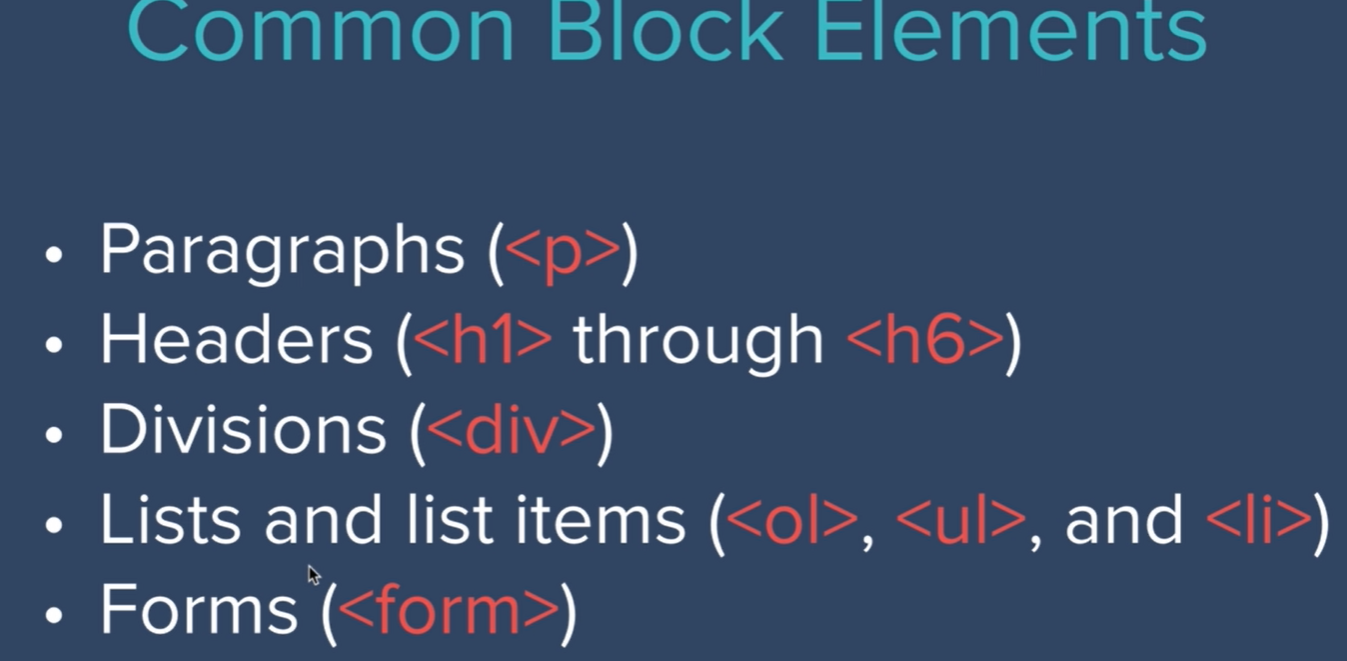
**Span:**

Span basically defines a specific part of the given element like Agar aapne text ko select kiya and AAP chahte Hain usmen Ek specific part of text koi underline karna hai toh in that case of span ka use kar sakte ho vahan pe span utani width leta hai jitni usko us element ko hold karne ke liye chahiye or within the given division ya block exist kar sakta hai whi Pe agale line par nahi bhejta hai



**display:**

In case AB AAP chahte Hain Ki aapka Jo different elements Hain who SAB ke SAB Ek line Mein hi rah to us case ke liye hum inline display ka use karte Hain there are different types of display defined in CSS and by default jo display defined hoti hai who hai block; block ka matlab hai Ki ek ke upar Ek block rakha rehta hai but jab AAP use inline karte Hain toh sari Ki sari chijen Ek line Mein AA jaati hai



These elements take complete block that is complete width

But the best part is you can modify the width when element is defined with display as type block however in case of inline you cannot append the width.

Yahaan par **block** sabhi ko one on one par rakhta hai **inline** SAB ko Ek line Mein leke aata hai **inline-block** special hai reason being ki block self alone aapko width to the element feature bhi provide karta hai and inline aapko Ek line mai sab Wali feature provide karta hai but donon hi feature Agar hame chahiye Ki width bhi hum apne element Ki khud define Karen to us case Mein hum inline block use kar sakte Hain. And in case Agar hum chahen Ki Agar hamen apne element ko show hi nahi karna to us case Mein hum **none** ka use karte Hain

**Visibility:**

Jo apne display none ke saath kiya whi cheese AAP visibility ke saath bhi kar sakte the donon Mein difference ye hota hai Ki Agar AAP visibility ka use karenge to wo block apne space lega but visible nahi hoga but Agar aapne display ko none kiya to us case Mein display na to apne corresponding existence ka width leta hai aur na hi wo show hota hai

**Default rules how display renders**

**1. Content is everything** iska matlab hai Ki Jo bhi height hogi wo AAP Ek content Mein hi dependent hai

**2. Order comes from code** order of code determine karta hai kaun sa element pahale aayega kaun sa bad

**3. Children sit on parents** Agar aapne Ek parent banaya Ek uske andar record banaya aur Ek aur uske andar Ek banaya to jo sabse andar grandchild hoga wo sabse close to the viewer dikhega and parent jo hoga sabse back part rahega for instance Agar aapne division banaya uske andar Ek h1 tag diya and then span dia to span Jo hoga wo sabse top uske baad H1 and then division dikhega

**Positions**

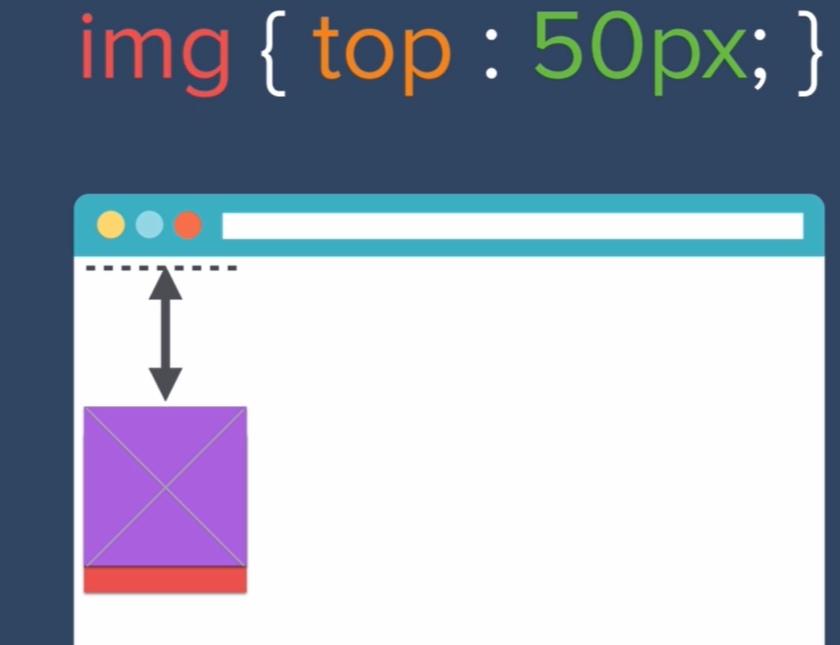
**Static position** isamen by default Jo HTML bina kisi CSS K implement karke aapko as inflow dikhaega kiski position yahaan honi chahiye iski position vahan honi chahiye koi static position Mein rehti hai so basically a default positioning bhi kah sakte Hain

**Relative position** relative positioning Mein hum basically pahale ye dekhte Hain Ki who element bina kisi appended position parameter ko define hue by default wo kahan par hai and then by default se ham either top bottom left right say kisi particular distance hum use ya kuch pixels piche shift karte Hain to it means Ki Agar hamne use 10 pixels left shift kiya toh it will shift towards left by that much position jha wo pehle rehta in shot matlab ye hai Ki Agar aapne AB use left 600 pixels kiya to wo image apne previous left position se left side Wale reference line se che sau pixels Ki duri par apna naya reference of left side banaega

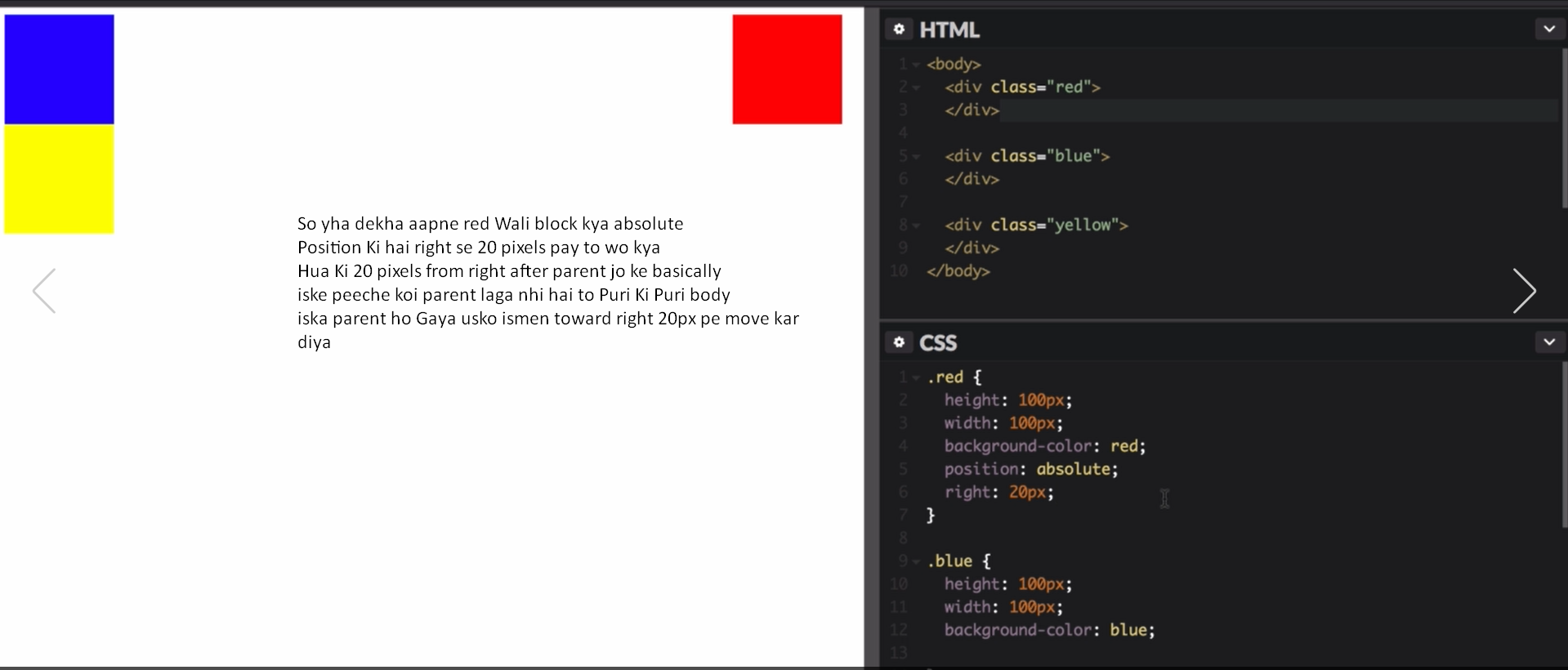




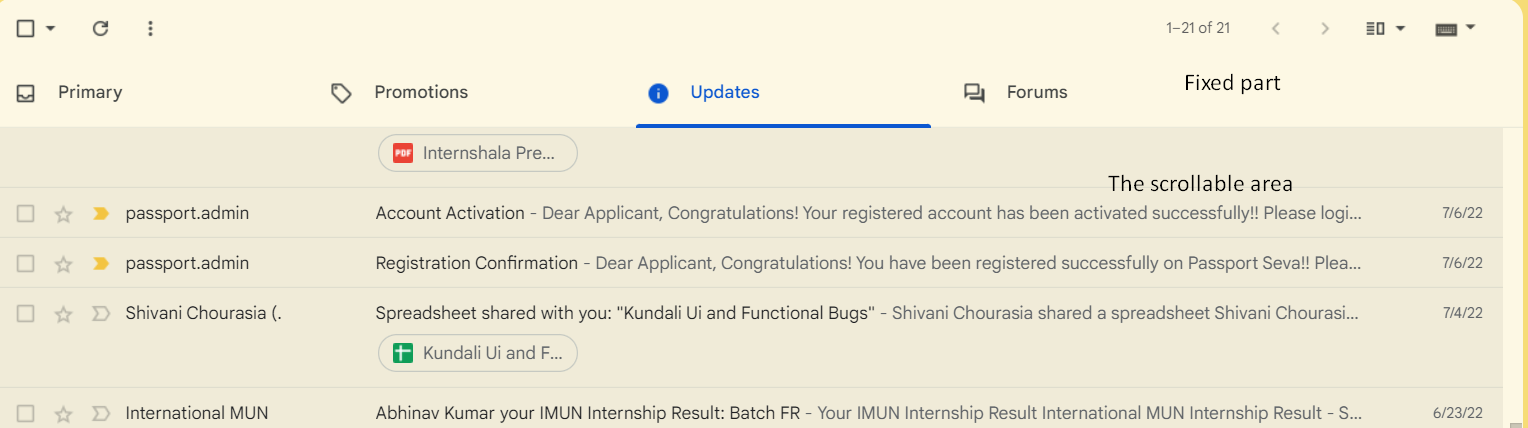
Relative is same as it won’t affect the position of others by any change due to it if you changed the position of an element by 30 pixels bottom to reference line then any element lines in the bottom will have to face an overlap. But also the main thing is the ye Jo bhi element apne shift kiya hai either left right bottom whatever ka purana position jha bhi tha wo uske liye us jagah pe hamesha maintain rakhta hai it is like Ki Agar mera ghar yahaan pe tha lekin main abhi left vali padosi ke ghar ghumne Gaya Hun to mai uske ghar Mein overlap kar raha Hoon but mera ghar abhi bhi wahi purani jagah pe hai hi.



**Absolute positioning** in this positioning hung parent K respect men chijon ko arrange karte Hain for example Agar hamne Ek division liya hai uske upar hamen image daal rahe to image division ke border thi uske respect Mein hi chijon ko apane across up down top bottom move kar rahe honge and is movement Mein it is the like key aapka ghar tha yahan par Jahan par rahte Hain par AB AAP yahan se shift karke dusri jagah chale Gaye to AB aapke liye dusri jagah ghar ka space alot hoga purani Wali jagah par nahin vahan aab koi aur rahega in absolute positioning basically hamen har left coordinate right coordinate kiya jitane coordinate se mention karne padte Hain with respect to body otherwise Sachdev wo SAB ke SAB zero, zero index for he overlap karenge dusare ke upar with respect to body.



**Fixed position** is Vale Mein basically AAP element ko fix kar dete Hain and who chahe app scroll Karen but who’s relatively us position par fix baitha rahega ye generally AAP aaj Kal ke high tech websites Mein dekhte Hain Ki top bar ko hamesha ke liya top par set kar diya jaata hai menu bar ko and then app scroll kuchh bhi karo vo wesa hi rhega and rest on scroll fix Wali cheeze ke niche hi jaati hai



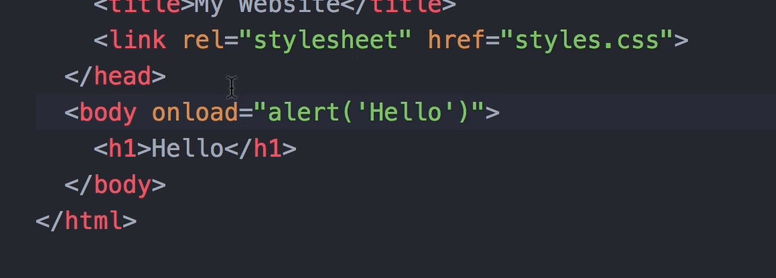
**Centre**

To make elements in the centre we need to just use text align feature in the body part and make it centre. And beside that wo position wla absolute and relative to hai hi

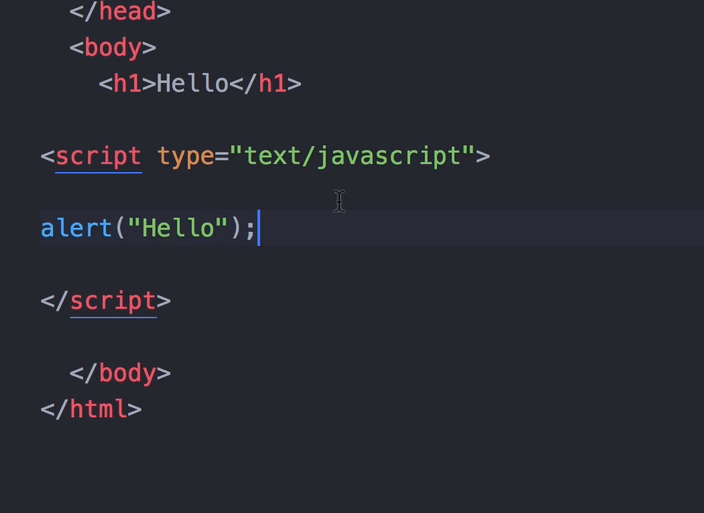
**JAVASCRIPT**

DOM (Document object Model): in this we focus on the idea about how to incapsulate or include a JavaScript code into our web pages.

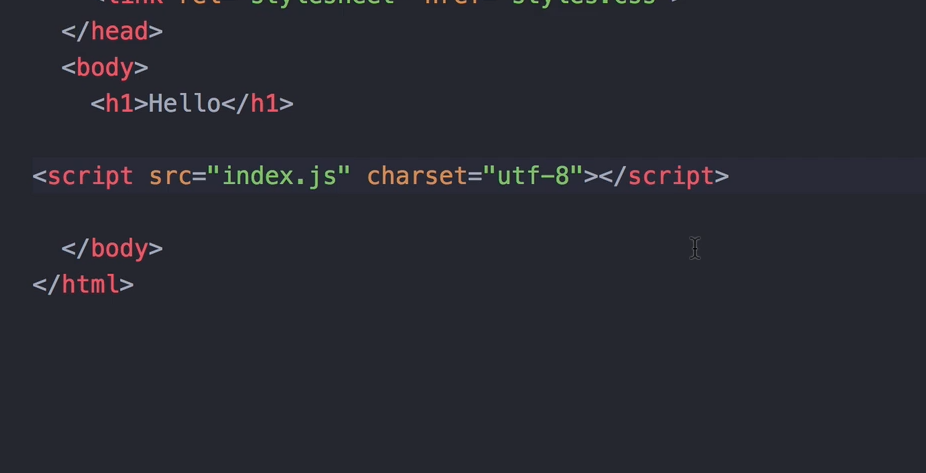
Inline script: ye bilkul inline CSS Ki tarah hai Jahan AAP basically tag ke andar hi define karte Hain JavaScript code ko and who on the execution of that tag apne AAP hi implement hota hai but again ye coffee jyada tough to manage hota hai when working with the long codes.



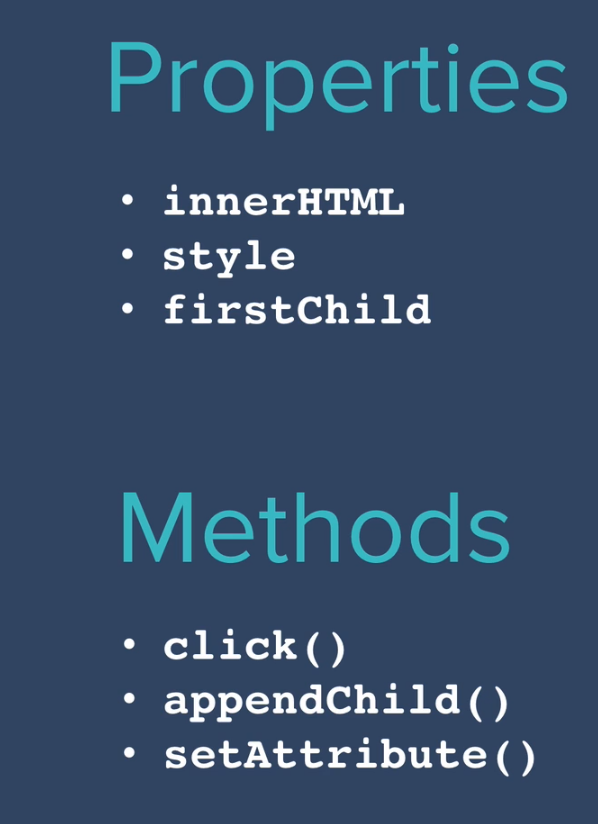
**Internal Script**: this is saying as internal CSS in which you basically define the CSS in the given tag domain and that will be the same case here yahaan bhi AAP script naam ke tags in between Jo bhi JavaScript code likhenge vo locally vahan pe execute hoga.



External script: in this same as external css AAP yahan par apne JavaScript file ko incorporate kar sakte ho and the method to invoke that is has shown below aapne aisa karke jis b JavaScript ke file ko current HTML page ke saath link kiya who apna execution attach kar deta hai while page is being built



**DOM**



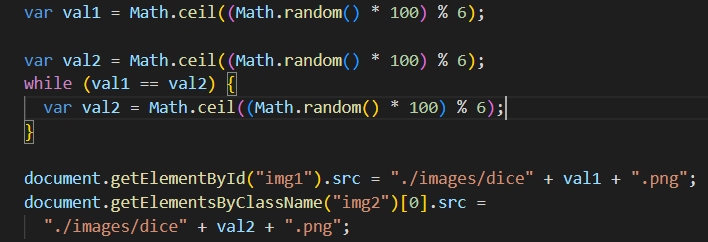
These are a list of a few things and you can do with DOM.

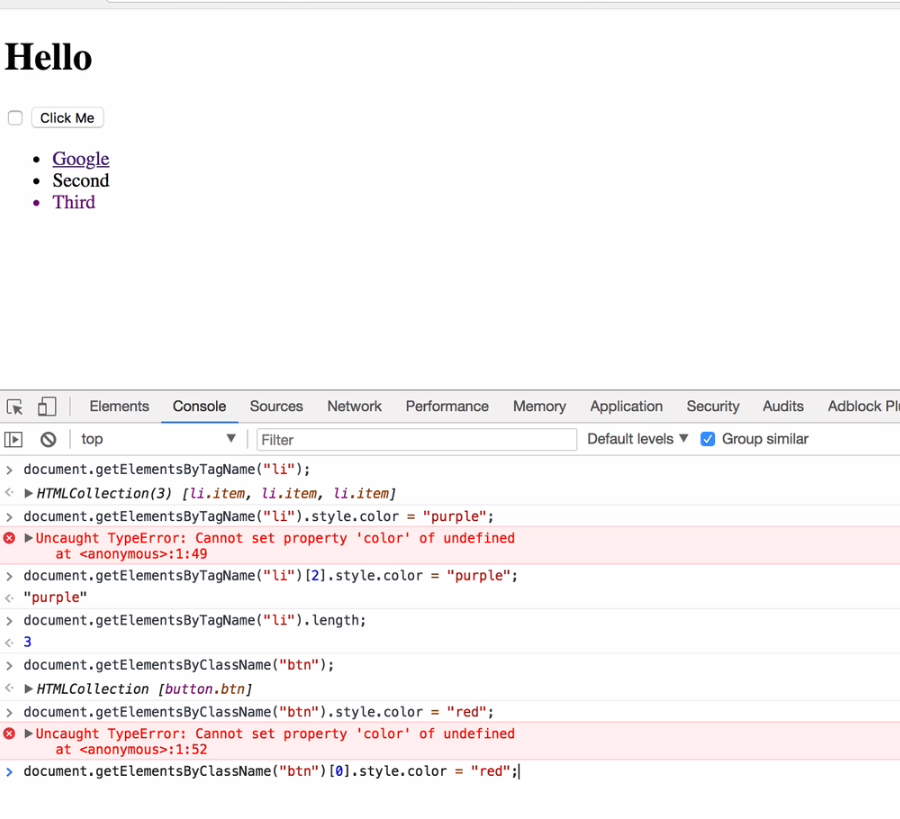
**The Document Object Model (DOM)** is a programming interface for web documents. It represents the page so that programs can change the document structure, style, and content. The DOM represents the document as nodes and objects. The most commonly used ones:

1. **document.getElementById(id)** - Returns the element that has the specified ID.
2. **document.getElementByClass(class)** - Returns the element that has the specified class name.
3. **document.getElementsByTagName(name)** - Returns a collection of all elements with the specified tag name.
4. **document.createElement(element)** - Creates an HTML element with the specified tag name.
5. **element.innerHTML** - Sets or returns the HTML content of an element.
6. **element.style.property** - Sets or returns the value of a specific CSS property for an element.
7. **element.getAttribute(attribute)** - Returns the value of the specified attribute of an element.
8. **element.setAttribute(attribute, value)** - Sets the value of the specified attribute of an element.
9. **element.appendChild(node)** - Adds a new child node to an element.
10. **element.removeChild(node)** - Removes a child node from an element.
11. **element.replaceChild(newNode, oldNode)** - Replaces a child node with a new node.
12. **element.addEventListener(event, function)** - Attaches an event handler function to an element.
13. **element.removeEventListener(event, function)** - Removes an event handler function from an element.

Example of using DOM:

Yahaan par hamane sabse pehle document do method se access kiya Ek to pahale hai with Id to isamen sirf or sirf Ek element select ho ke aata hai and uski hamane source property change ki Jo Ki image Ki property thi and dusre Vale case Mein hamane class name select kiya usme hamare pass list of elements aata hai usme hamane sabse pahla Jo element to use select kiya aur uski source Wali property to change kiye and uske upar Jo dikh raha hai who basic of logic hai Ki aapko Ek se chhah ke Beech Mein dhaai swalla tha to aapne aisa bana diya





Here are a few of the ways by which we can select a given element and in most of the cases written here the element is returned as a collection of elements in which you can work upon any single element by using square attributes that is like addressing an element in array or list.



This is the only unique method to select an element via its ID in which the document selected only contains 1 element and you can manipulate that element directly as shown here need to use square brackets.

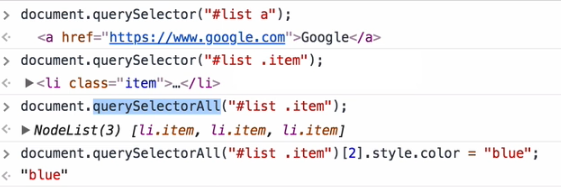
**The Best Dom Method applies for all**



The method called as querySelector. In this one need not to mention AAP yahaan pe class select karne Wale Hain ya with ID karne Wale Hain ya with tag karne Wale Hain automatically he wo use identify kar leta hai Jo apne query selector ke andar mention kiya hai bas Ek cheez ka dhyan rakhna padta hai jaise apne CSS Mein Rakha tha Ki Agar AAP kisi class ki property ko define karne JA rahe Hain to us case Mein jaise apne .class\_name karke use kiya tha vahin pattern yahaan pe bhi follow hoga. As for id #id\_name.



Yes example main Agar nested hota hai Tao use kar sakte Hain AAP nahar pahale example dekhe to pahale who lied tax accept karega then uske andar Jake eko select karega ye naam Ki Jo tag key property hai uski niche Wale line pe dekho AAP to live basically Ek list hai jiska class name dot item hai toh Agar UN sabko select karna hai toh aapko as shown below Li fir uske baad dot item ka use karna hai.



AB Tak aapne Jo select kiya query selector se usmen Jo bhi ho jaise list item Mein bhale hi hamare paas Ek se jyada elements the but still usane sirf or sirf pahale Vale ko dikhaya to in case if you want all the elements needs to be selected fir uske liye AAP querySelectorAll( ) ka use kar sakte Hain and in order to modify any property wapas vahi array wala use kar sakte Hain square bracket.

Now jitna bhi ab Tak apne dekha hai inn sabse best querySelector() ya querySelectorAll because it provides you all that feature for your whole html document so try using this querySelector( ) yeah for querySelectorAll( ).

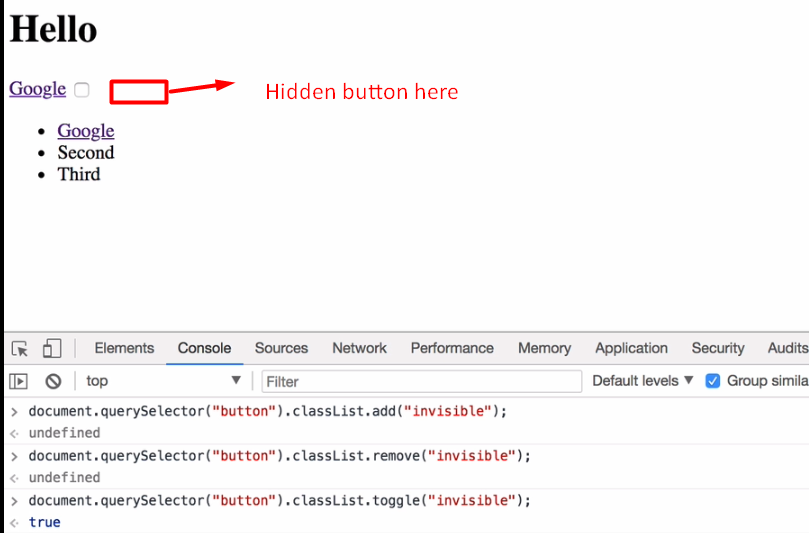
**Changing style property with the help of DOM**



If you want to manipulate the style property then you can easily do it by very first selecting the particular element and then mentioning. style and then. property and set it equal to the required value. But whatever value you provide it should be a string no matter the value is an int value or float.

**Separation of HTML CSS AND JS FILE**

All the 3 HTML CSS JS must be separated and everyone have their own role like as HTML basically gives you the structure of your web page CSS basically gives you the style and design of your webpage and JS gives you the operational work so as we are doing above that we are changing the style using JavaScript so it’s not a good practice to do so instead of that what we can do is as shown below

now as you can see yahan hum pehle query selector Ki help se button tag to select kar rahe Hain and then ups button tag main jitni bhi classes hai in sabko Ek as a list select Kara uske liye dot class list method use kiya now hamane Ek dusri invisible naam Ki class CSS file Mein define kar di hai now using add remove and toggle property AAP is invisible class ko current button tag ke saath associate kar sakte ho for example Agar class list Mein apne add kiya invisible class ko to invisible Wali property implement hogi joki CSS file mai defined Ki hai par haa yha hm usko associate ya dissociate kar skte hai kisi bhi tag ke sath and you also know ki ek tag multiple class ya ids ko bear kar skta hai

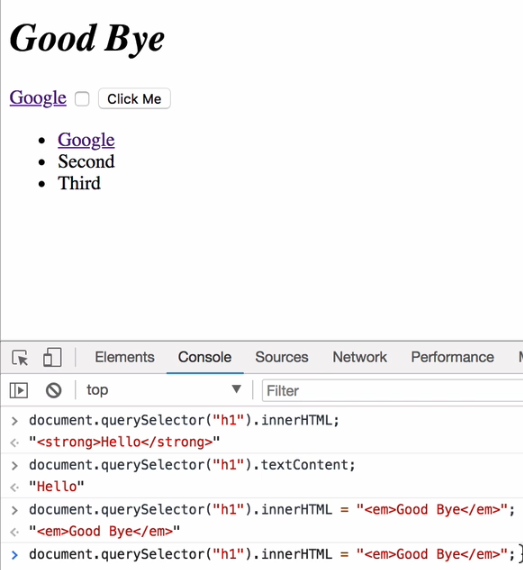
Now one thing here is we have 3 methods

**Add**: this will for sure add a class to the class list

**Remove**: this will for short remove a class from the class list

**Toggle**: this will for add or remove a class from the class list depending upon whether it is earlier present or not if it is not present then it will add and if it is already present in class list then it will remove that

**Text Access in any HTML attribute**



see we have 2 methods one is innerHTML and another one is textContent so hamne yahan HTML tag ke andar strong tag ka use kiya and then usme text hello define kiya hai apne yha innerHTML ke use pe dekha ki who poora ka poora aapko stack ke andar Jo bhi values Hain who return karta hai but when using textContent in that case wha sirf aur sirf text value us tag ke andar ka return kar raha hai aapko so it can be one of suggested way about how to use the 2 of this and in case Agar aapko innerHTML Mein hi change karna for example H1 tag mai text hai but aapko text ke alawa usmen cursive dalna hai for cursive to added AAP vahan pe innerHTML ke saath use kar sakte ho but necessity ki aapko wha likhna in the string hi hai



Now last property that if you want to see ki konse tag mai konsa attributes hai for that attributes list ke liye AAP .attributes method ka use kar sakte Hain wo aapko us tag se jitni bhi attributes linked hai wo return karegi now dot getAttribute(“Attribute\_name”) is case Mein aapko is attribute ki value return hogi and in case Agar aapko kisi attribute ke parameter ko change karna hai to fir AAP usmein setAttribute(“attribute name”, “new\_value”) function ka use kar sakte Hain Jo Ki do input parameters leta Ek to us attribute ka naam jisse change karna hai and doosra us attribute ki updated value

