Events and EventsListener:

Ham jab b koiii cheez prr click krtay hain, for eg single click, double click, mouse hovering etc tu hum jo b kisi cheez pr krwana chahtay hain tu wo hm events and event listener ki help say kr sktay hain jaisay for eg hm chahtay hain k ye aik btn hai jab b koi iss pr double click karay tu iss nay aik pop up show krna hai tu wo hm events listener k through karengay and so on.

This is most important section

Topics we will discuss:

EventsBinding:

* addEventListener
* removeEventListener

Common Events:

* click
* input
* change
* submit
* mouse hover
* keyup

Event Object:

* target
* type
* preventDefault

Event bubbling and capturing:

Event Delegation:

Browser mein page par koi b harkat karo, wo event kahlaye ga. Matlab event raise ho jaye ga. Matlab kuch b ho jaye screen par tu wo aik event hai. Hm nay mouse hover kr diya ye aik event hai doule tap kiya ye aik event hai, single tap kiya ye event hai and so on.

Tu event ka matlab haii k kuch huaa.

Event listener ka matlab hai k aap nay koi action kaaa reaction diya. Like hm nay click kiyaa orr uss say hm nay screen ka color change kr diya. Tu ye aik event listener thaa

let btn = document.querySelector("button");

let h1 = document.querySelector("h1");

btn.addEventListener("your desired event name", function () {

  h1.style.color = "red";

});

Tu jab ham nay event listener lagana hai tu bsss jss par lagana hai simple us ko pahlay select karo. Phir .addEventListener(“click”, function(){}) tu iss mein kuch b aap krwa skty ho. Jaisa k hm nay apnay h1 ka color red kr diya.

Tu ye jo eventlistener hai ye 2 attributes lega. Pahla uss ka name k tu ham nay sirf simple single click prr kuch krwana hai tu wo sirf uss ka name click hai agar double click prr kuch krwana chahtay tu uss ka name hota “dblclick”. Doosra function lega jiss mein hm kuch b krwa sktay hain..

Tu jo b event krwana ho jiss cheez par tu ye steps follow karo

* select that node(element) first
* now add event listener to that element by using addEventListener
* now jo event listener mein jo function haii uss mein bataao event listener ko k uss element prr krwana kiaa hai tu wo karo.

Below code will perform something on double click

let dcp = document.querySelector("p");

dcp.addEventListener("dblclick", function () {

  dcp.style.color = "blue";

  dcp.style.backgroundColor = "yellow";

});

Because in add event listener we have given “dblclick” which mean that you have to do something when we double click on selected paragraph.

Removing Event Listener(removeEventListener) : matlab k kisi element pr pahlay kuch event listener laga huaa hai tu tub removeEventListener ka use karengay. Tu remove krtay huee b hm nay wo jo event lagaya thaa wohi name ka use krna hai orr function b wohi dobara remove listener mein b use krna hai like

let h3 = document.querySelector("h3");

function checkkk() {

  h3.style.color = "red";

}

h3.addEventListener("click", checkkk);

h3.removeEventListener("click", checkkk);

tu iss mein siraf farq ye hai k jab ham removeEventListener ko use karein tu hm nay wohi lagana haii jaisay k hm nay click ka event add kiyaa tu hm nay wohi click likhnaa hoga orr jo function hai wo hm wohi same function lagayengay. Lekin hm nay uss function ko alag likhnaa parega taakay uss ko dono mein use kr sakein warna phir work nai karega. Tu matlab hm nay jo apply karwana hai function uss function ko ham nay phirr alag banana parega. Taakay dono mein use kar sakein. Matlab addeventlistener mein b orr removeEventlistener mein b just like given above.

Common Events :

There are lots of events which we can use like click and dblclick we cannot memorize all of them here are some common events that are commonly used.

* Input: (jab b hm kisi input pr kuch input karein tu iss mein apna pasandeeda event perform karwa sktay hain, matlab kisi textform mein jab koi type kareay tu phir hm kuch envent ko perform krwana chahein tu kr sktay hian iss say)
* Change event:(ye tub chalta hai jab apka koi input select ya text area mein koi change ajaye

Input: we can use it like this

let minput = document.querySelector("input");

minput.addEventListener("input", function () {

  console.log("something inputed..");

});

Tu wo jo input jo hoga uss mei kuch b type jab hoga even k space b tu humein console prr something inputed likh kr ajaye ga… utni hii baar jitni baar type hua ho.. tu for eg agar humay maloom karna k matlab kuch kuch input haii to wo text kiaa hai tu wo b hm find kr sktay hain like

let mminput = document.querySelector("input");

mminput.addEventListener("input", function (val) {

  console.log(val.data);

tu wo jo input mein jo b type karega tu wo function k val mein aye ga. Ye simple variable hai is ka name kuch b ho skta hai. Tu iss ko hm console karein tu hm nay val likhaa orr ye jo data uss k baad hm nay likhaa hai tu ye hm nay use method say console.dir() mein uss ki elements mein dhaikaa k aik key hai jiss mein wo jo text type hota hai tu aata hai tu wo data aik key hai input ki tag mein . tu iss liiyee hm nay val.data use kiyaa tu ab jo b likhaa jaye ga wohi text console prr print ho kr aye ga.

Agar hm space add karengay tu data mein space aye ga magar agar backspace use karengay tu phir data mein null print hoga.

let sndinput = document.getElementById("sndinput");

sndinput.addEventListener("input", function (details) {

  //   console.log(details.data);

  if (details.data !== null) {

    console.log(details.data);

  }

});

Tu hm nay iss ko ye condition de deiiiii k agar jab b null na ho tu print krr diyaa karoo or agar null ho tu print na krna. Tu ye null ko print nai karega.

Change:(event listener)

<h2>Select your device</h2>

<select>

      <option selected disabled>Choose your device</option>

      <option value="samsung">samsung</option>

      <option value="apple">apple</option>

      <option value="vivo">vivo</option>

    </select>

Matlab k hm nay example k liyee ye select tag ka use kiyaa hai jiss mein hum selection kr sktay hain. Tu ab change ka meaning hai k for example hm nay Samsung ko select kiyaa tu hm listener mein kia perform karein tu ye hm kr sktay hain. Like

let sel = document.querySelector("select");

sel.addEventListener("change", function (details) {

  console.log(details.target.value);

});

Tu ye jo hm nay console mein print krwaya hai ye b ham nay usssee tareekay say find kiyaa hai k console.dir ka use kiyaa hai orr uss mein ham nay details k elements mein dhaika k target or target mein ham nay value ki aik key dhaikii jiss mein wo value pari hoti hai jo hm select karein tu ye hm nay khud find krnaa hai.

Tu ye jo console mein ham nay details.target.value jo use kii hai tu ye uss value ko print kr degi jo hm select karein like Samsung tu ye Samsung ko console kr dega.

let sel = document.querySelector("select");

let h2 = document.querySelector("h2");

sel.addEventListener("change", function (details) {

h2.textContent = details.target.value;

});

Tu hm nay jo value select ki ho wo hm h2 mein use krwana chahtay hain tu ye hm nay pahlay h2 ko select kiyaa phirr uss k textContent mein wo value use kr li.

   <div id="btn">Upload File</div>

    <!--  -->

    <input id="myinput" type="file" style="display: none" />

Agar hm dheikain tu iss mein ham nay aik input banai hai jiss ki type ham nay file rakhi hai iss ka matlab hai k iss pr click kr k apnay laptop say koi file select kr sktay hain. Magar agar hm iss ko dhekein tu ye dhaiknay mein bilkul b acha nai lagta matlab page par. Tu ham chahtay hain koi apna aik custom btn banayein jo beautiful ho. Tu Hm nay yahan prr aik simple div banai hai jis mein simple aik upload file text likhaa hai bs. Orr jo wo html ki input wali btn thi uss ko hm nay display none kr diyaa matlab k wo dhikaii dega nai. Tu ab ham chahtay hain k jab ham click karein apnay custom div btn prr tu uss prr ye file choose wali option lag jaye. Tu iss k liye hm ye kr sktay hain k

let btndiv = document.querySelector("#btn");

let myinput = document.querySelector("#myinput");

btndiv.addEventListener("click", function () {

  myinput.click();

});

Tu iss mein nay uss siraf div ko select kr liyaa pahlay and wo uss input ko b select kr liyaa jiss ka display none kia tha.

Tu ham chahtay hain k hm click karein btndiv prr magar wo input jo file selector hai wo uss prr click ho. Tu ham nay btndiv prr event listener lagaya click ka event lagaya orr function mein hm nay myinput.click() kiyaa tu matlab k uss prr click karo jo myinput hai.

Tu ab mein chahta hun k jo file mein nay select kii hai tu uss ka name uss btn prr ajaye tu uss k liye mein nay event listener lagaya. Orr yahan prr hm nay change ka event lagaya qk humein pata hai k jab hm file ko select kr rahay hain tu koi change hii araha hai tu iss liye tu ham nay event lagaya iss par. Tu ab jab b koi file select hogi tu mein chahta hun k uss ka name uss div k text par ajaye. Tu ye jo attribute hai ye b hm nay wohi console.dir k method say find kiaa hai k kiaa koi aise property hai k jiss mein name, ya koiii aisa koi option ho jiss mein humein uss file ka name mill raha hai. Tu jab ham nay sari uss mein talaash kiyaa tu hm nay dhaika k jo target hai uss k andar aik attribute hai files wo aik array hai uss k andar name save hai tu ham nay iss liyee files[0] use kiyaa hai. Qk zero index pr wo name save tha. Like

let btndiv = document.querySelector("#btn");

let myinput = document.querySelector("#myinput");

btndiv.addEventListener("click", function () {

  myinput.click();

});

myinput.addEventListener("change", function (details) {

  //   console.log(details.target.files[0].name); this will print the exact name of that file

  btndiv.textContent = `${details.target.files[0].name} Choosen`;

});

Tu iss mein aik error araha thaa k jab hm aik file select karein orr dobara dosri file ko select krnay jayein orr cancel ka btn click krein tu humein error araha thaa tu iss liye hm nay if ki aik condition use ki hai takay error na aye. Like

btndiv.addEventListener("click", function () {

  myinput.click();

});

myinput.addEventListener("change", function (details) {

  if (details.target.files[0]) {

    btndiv.textContent = details.target.files[0].name;

  }

});

Tu ham nay siraf ye condition put ki hai k agar ye file available ho tu name change kro wrna chor do bs.

Submit event:

Submit prr jab hm koi event ko submit krtay hain like koi form ho hm nay uss ko sibmit kiya tu kia krwana chahtay hain tu kr sktay hain. Like hm nay aik form banai like

    <div>

      <form action="">

<input type="text" placeholder="profile pic" />

        <input type="text" placeholder="name" />

        <input type="text" placeholder="occupation" />

        <input type="text" placeholder="info" />

        <input type="submit" />

      </form>

    </div>

Ham nay simple aik div k andar form liyaa hai or us k andar input li hai bs. Ooper ki input ki type text hai orr last mein ham nay submit lagai hai matlab k jab ham iss pr click karengay tu ye jo b textfield mein ho wo submit ho jaye ga. Tu ye tu 4 5 inputs hain magar kabi na kabi tu submit ho hii jaye ga tu ye khud manage krta haiii k kiss par submit laga huaa hai… . Magar yahan aik problem hai k jab hm submit prr click karein tu ye submit tu kr deta hai magar sath mein page ko reload ya refresh b kr deta hai. Tu agar hm nay dom mein js ki help say kuch kiyaa ho tu wo sari changes hat jayengi. Tu yahan par ham nay submit type mein uss ko ye krwana hai k jab tm submit karo tu reload ya refresh mat kar. Tu kiaa krna hai matlab k form ko yahan prr rokna hai submit honay say. Tu jab b submit honay lagega kuch tu function chalega tu uss mein ham nay preventDefault() ka method uss pr use karna hai.

Tu iss waja say hm nay preventDefault() ka method ooper use kiyaa hai.

Ab iss mein aik problem hai k agar hm jitnii baar submit button prr click karein tu ye utni baar hi wo card ko banata jaye ga orr wohi data jo hm nay di thi matlab k iss tarah naii k aik dafa hm nay kuch type kiyaa tu wo agaya magar jab hm dobara submit krtay hain tu wohi jo pichlee dafa type kiyaa hota hai wohi data ko wo show krta. Wo we need the real data. tu iss k liyee hm ye karengay k

Jaisay k hm dhaik sktay hain k jo ham nay query selector all kiyaa hai tu iss nay sub inputs ko select kr liyaa hai. Tu ye jo query selector hota hai ye array jaisa structure hota hai iss mein elements mein. Tu ye jo profile pic hai ye 0 index pr hogi or baki sub aagay and so on.

Tu uss k liyee kiaa karna hai k jo ham nay pahlay 0 index pr profile pic ki input rakhi hai tu humein wo data chahiyee jo banda khud daalay uss input mein tu ye krna hai k

Jo log uss mein daalein wo wala real data humein get hon tuu uss k liye hm ye krtay hain k jo inputs[0].value matlab k jo inputs mein 0 index pr banda hai uss ki value humein dedo.

Bilkul use tarah hum baki inputs k sth b karengay.. like

  let img = document.createElement("img");

  img.setAttribute("src", minput[0].value);

  let h3 = document.createElement("h3");

  h3.textContent = minput[1].value;

  let h5 = document.createElement("h5");

  h5.textContent = minput[2].value;

  let p = document.createElement("p");

  p.textContent = minput[3].value;

now hm chahtay hain k jab hm aik dafa hm submit karein tu ye jo inputs hain iss ko empty kar dein. Tu iss k liyee hm for each loop use karengay inputs pr. Like

  minput.forEach(function (inputval) {

    inputval.value = "";

  });

Magar iss mein problem arahi thi k ye submit btn wala jo input hai uss ka b text clear kr deta tha uss k liye hm if condition laga sktay hain like hm nay lagai condition k agar inputs jo hain agar in ki type jo hai wo submit nai hai tu uss ko clear kar do orr agar type submit hai tu uss ko waisay hi chor do

  minput.forEach(function (inputval) {

    if (inputval.type !== "submit") {

      inputval.value = "";

    }

  });

MouseOver and MouseOut:

let mdiv = document.querySelector("#abcd");

mdiv.addEventListener("mouseover", function (details) {

  mdiv.style.backgroundColor = "yellow";

});

Ham nay simple sa ye code likhaa hai k jiss cheez par ham apna mouse le kr jayengay tu wo uss ka background color yellow ho jaye ga. Magar iss mein kahi b aisa nai likhaa k jab ham wapis mouse ko le kr ayein tu iss ko dobara wohi purana color badal do tu iss k liye ye karengay k

let mdiv = document.querySelector("#abcd");

mdiv.addEventListener("mouseover", function (details) {

  mdiv.style.backgroundColor = "yellow";

});

mdiv.addEventListener("mouseout", function (details) {

  mdiv.style.backgroundColor = "red";

});

Tu iss pr ham dobara event listener lagayengay orr “mouseout” ka event lagayengay k agar mouse uss cheez say bahir jaye tu dobara red ho jaye.

MouseMove:

window.addEventListener("mousemove", function (details) {

  console.log(details);

});

Ye window say muraad hai k ye even listener pooray screen par lagega matlab k kisi khaas specific cheez par nai lagega. Poori screen(window) par lagega. Jab ham nay ye print ki details tu ye humein values dy raha tha. Matlab k yaxis, x-axis ki values k mouse kahan kahan ghoom raha hai.

  console.log(details.clientX, details.clientY);

ye humein jagah bata raha hai k abi x-axis pr ye mouse kahan hai orr y-axis prr kahan hai tu simply hm nay ye siraf print ki hai.

window.addEventListener("mousemove", function (details) {

  //   console.log(details.clientX, details.clientY);

  div.style.top = details.clientY + "px";

  div.style.left = details.clientX + "px";

});

Ham nay simply ye lagai hai k mousve move prr ye jo humein console mein x-axis deta hai and y-axis uss ko liyaa hai orr jo div hm nay banai haii uss k style mein uss ko uss ki value de diii hai tu ye mouse jahan b move hoga ye div uss k sath hi move Hoga.

So tu mouse move say hm kisi cheez ko ghuma b sktay hain.

Event Object :

There are mainly 3 event objects

* PreventDetault( ye jo hai ye mainly humein form mein submission mein kaam ata hai jaisay k hm nay previous parhaa thaa k jab hm form submit krtay hain tu ye page ko reload kr leta hai jiss ki waja say sara data chala jata hai tu hm ye nai chahtay tu iss say bachnay k liyee hm preventDefault ka use krtay hain.
* Target(ye wo banda hota hai jiss prr wo action perform huaa tha jo b action ho chahay click ka option ho double click ho and so on.)
* Type( ye wo hai jaisay hm nay event listener lagaya kisi cheez pr click ka tu uss ka jo type hoga wo click hoga, ye hm koiii double click b laga sktay hain and so on.)

When we add any event listener on any div, or anything when we put function inside it and we use (details), or (dets) option this is what we called an event object. Like

let maindiv = document.querySelector("#maindiv");

maindiv.addEventListener("click", function (details) {

  console.log(details);

});

Tu ye jo function mein details likhaa isse koi event object kahtay hain.

Ooper humein 2,3 cheezon pr baat krnay k liyee bola hai. Tu target wo hota haii hai jiss mein actual mein wo action huaa hota hai. Jaisay for eg hm nay aik div banai orr uss prr hm nay click kiyaa orr uss div pr hm nay click kiyaa tu ye target thaa matlab div prr hm nay click kiyaa.

Event Bubbling:

Jispar event ayega agar uss par listener nai huaa tu humara event uss event k parent par listener dhoonday ga. Orr aisa kartay kartay ooper ki taraf move karega. Tu iss ka matlab hai k

Main Div

Nav Div

Links

Button

Tu ye hm nay structure banaya hai. K main div mein nav divs hain uss k undar links hain and button hain. Tu for eg hm nay koiii listener btn prr nai lagaya tu ye apnay parent ki taraf move karega jo k abii hai navdiv matlab wahan listener dhoondega. Agar mill gaya tu teek warna wo uss say b ooper jump karega apnay parent ki taraf jo k yahan par main div hai aagr wahan b koi event nai huaa tu wo phirr bss kuch nai karega orr agar huaa tu wo wala event ye perform karega. Agar uss par b nai hai tu body pr check karega agar uss pr b nai hai tu html tag pr check karega. Like

 <div id="maindiv">

      <div id="nav">

        <a href="">Home</a>

        <a href="">About</a>

        <a href="">Info</a>

        <button>click follow</button>

      </div>

    </div>

let nav = document.querySelector("#nav");

nav.addEventListener("click", function (dets) {

  alert("clicked");

});

Ham nay siraf nav prr event listener lgaya hai magar. Jab agar hm button pr ya link prr b click karein tu ye phirr b humein event show karega qk ye wohi event bubbling wala scheme show kr raha hai. Qk nav pr koi event listener nai tha tu ye apnay parent pr check krnay gaya k uss pr tu koi event listener nai hai. Jaba ye wahan gaya tu uss k parent pr event listener mojod tha jo k ye hai k agar hm aik dafa click karein tu ye humein alert show karega. Tu iss say phir b alert show kiya. Ab hm aik eg letay hain like

 <ul>

      <li >Apple</li>

      <li>Banana</li>

      <li>Melon</li>

      <li>Mango</li>

      <li>Grapes</li>

    </ul>

Hm nay li banai hain 5. Tu agar humein sab par listener lagana hai or sab par alag alag lagatay hain tu laga tu sktay hain magar lagana waisay hi wastage hai. Tu ham aisay kartay hain k iss k parent par lagatay hian. Jo k yahan par ul hai tu jab uss par lag jaye ga tu agar hm kisi b li pr click karengay orr uss ko apnay ooper koi listener nai mileage tu wo apnay parent ki taraf jaye ga tu jab wo parent ki taraf jaye ga tu wahan uss ko parent prr listener mill jaye ga orr wo uss ko use kar lega.

let ull = document.querySelector("ul");

ull.addEventListener("click", function (details) {

  //   console.log(dets.target);

  details.target.style.textDecoration = "line-through";

});

Ham nay siraf ye lagaya hai tu jaisa k ham nay kaha k jo jiss prr koi event perform huaa ho wohi target hota hai. Tu hm nay click li prr kiyaa tu target yahan prr li thaa. Tu ham nay uss ko select kiyaa orr uss k style ko line through kiyaa matlab uss k andar aik line guzar jayegi.

Hm iss par aik orr trick b use kr sktay hain k hm nay iss k liye aik css class banaii jiss mein textdecoration likh diyaa. Uss prr js k through classList.add() k through wo class hm add krwa sktay hain.

Magar hm nay add k bajaye toggle likh diyaa. Tu wo ye karega k jo pahlay say line thorugh thaa wo hat jayega orr jo nai wo abi ajayega. Like

let ull = document.querySelector("ul");

ull.addEventListener("click", function (details) {

  details.target.classList.toggle("lt");

});

Ye jo event bubbling hai agar jiss cheez par event listener laga huaa ho wo uss wala b chal jaye ga orr is k bawajood b wo apnay parent walay jo event hota hai uss ki taraf jump karega. Agar kisi cheez par event na lagaya ho hm nay orr wo jump karay apnay parent k listener ki taraf tu ye tu general hai magarr agar jiss par ham nay listener lagaya huaa ho wo wo wala run kr lega phirr b apnay parent walay k listener ki taraf jump karega orr uss ko b run karay ga. Like

<div class="a">

      <div class="b">

        <div class="c">

          <button>Don't Click Me</button>

        </div>

      </div>

    </div>

For eg ham nay button pr listener lagaya wo wala chalega, uss say ooper uss k parent ki taraf jaye ga jo k div hai uss ka listener chalega, wo uss say ooper parent ki taraf jaye ga orr uss ka listener chalega and so on.

let a = document.querySelector(".a");

let b = document.querySelector(".b");

let c = document.querySelector(".c");

let btn = document.querySelector("button");

btn.addEventListener("click", function (dd) {

  console.log("btn clicked");

});

c.addEventListener("click", function () {

  console.log("c clicked");

});

Jaisay dhaik sktay hain k Ham nay siraf btn pr listener lagaya hai and c pr lagaya hai. Now jab ham btn pr click krtay hain or console mein dhaiktay hain tu btn click ata hai jo k teek hai qk hm nay click ka event lagaya huaa hai. Magar sath mein uss k sth sth “c clicked” b console mein ata halankay ham nay c div ko click kiyaa b nai hai. jiss say humein pata chalta hai k agar hm child listener pr click karetin tu ye aakhir parent tak jaata hi jaata hai. Agar kisi par listener na ho tu chor deta hai. Orr agar kisi prr listener ho tu uss ko run kr deta hai. Jo k hm dhaik sktay hain k c ka listener chala hai humaray case mein.

Orr agar iss k sth hm nay a or b ka listener lagaya hota tu uss ka b chal jata listener. Jaisay for eg

btn.addEventListener("click", function (dd) {

  console.log("btn clicked");

});

a.addEventListener("click", function () {

  console.log("a clicked");

});

b.addEventListener("click", function () {

  console.log("b clicked");

});

c.addEventListener("click", function () {

  console.log("c clicked");

});

Ham nay btn prr listener lagaya hai. btn sab k andar hai. Siraf ham nay button prr click kiyaa hai orr wo jump kr k uss k parent prr gaya a ka listener chal gaya, wo ooper gaya b ka listener chal gaya, wo uss k ooper jump kiyaa orr c ka listener chal gaya bina touch kiyee tu ye hota hai bubbling mein.

So the main point is that when we try to run any event on any thing it will jump to their parent to check whether is there any event or not if found then it will run that event automatically also

Tu ye jo parent pr jata jata aakhir tak html tag tk pohanch jata hai

Event Capturing:

Ye jo event capturing hai ye event bubbling ka ulta hai. Jaisay k event bubbling mein kisi cheez par event occur hota hai ye uss k parent prr wo event check krta hai phirr agar wahan nai hua tu uss k parent par and so on.

Event capturing mein jab hm jahan b kisi jagah par event krtay hain tu ye pattern neechay say ooper ki taraf nai balkay ooper say neechay ki taraf aye ga. Like from parent to their childs.

Jab b hm click kartay hain ya koii b event click krtay hain tu jo humara event flow hota hai wo 2 phases mein chalta hai

1. Phase1) Event top level element say neechay ki taraf aaye ga(capture phase)
2. Phase2) Event raised element say parent ki taraf jaye ga.(bubbling phase)

Aur pahlay phase 1 hoti hai.

Iss ka matlab haii k for eg humaray pass 3 divs hain orr uss k andar aik btn hai. Like

Ab for eg humaray pass 3 divs hain or uss mein aik button haii. Tu iss mein for eg hm nay button pr click kr liyaa tu ab iss mein ye hota hai k for eg hm nay koi jo last wala div hai uss mein koi listener lagaya hai orr hm uss prr click kr lein tu ye naii hota hai k pahlay ye third one page prr listener ko check karay ga phir dosra phir first one and so on tu ye aisa karta hai k agar hm nay koi listener lagaya b hai tu for eg hm nay jo 3rd div pr lagaya hai tu ye pahlay jo listener hai ye pahlay frst one prr check karay gaa k koi listener tu nai hai phir uss say neechay phirr uss say neechay and so on. Iss ka matlab k pahlay blue ka listener chalay ga phir yellow ka listener chalay ga phirr grey ka chalay ga. Ye hai phase 1.

Agar hm aik khaas cheez iss mein kardein jiss ko hm kahtay hain (capture phase) tu ye phir jo phase 1 hai ye nai balkay phase2 chalay ga.

Humesha phase 1 hiii pahlay hoti hai. Par wo by default off rahti hai aisa samaj lo agar hm uss ko on kar dein tu pahlay phase 1 ka ans miley ga.

Tu matlab ye hai k pahlay capture phase chalta hai orr phir bubbling phase chalta haai. Tu ye jo bubbling phase hai ye by default on rahta hai. While the capture phase by default on nai rahta agar hm iss ko on karna chahein tu ye aisay karengay. Bs iss mein aisa karna hai k listener k last mein ham nay siraf true likh dena hai orr ye capture phase on ho jaye ga. Just like this

a.addEventListener(

  "click",

  function () {

    console.log("a clicked");

  },

  true

);

//

Hm nay iss mein siraf (c) prr capture phase ko onn kiyaa hai true likh kar tu aisa hoga k sab say pahlay (a) ka listener chalay ga. Phirr uss say neechay magar hm nay (b) ka capture phase on nai kiyaa hai tu yahan parr aye ga magar listener nai chalega iss k baad (a) ka chalega magar wo b hm nay on nai kiyaa hai tu nai chalega. Orr uss k baad button ka listener chalega. Qk humesha capture phase pahlay chalta hai.

btn.addEventListener("click", function (dd) {

  console.log("btn clicked");

});

a.addEventListener(

  "click",

  function () {

    console.log("a clicked");

  },

  true // (this will on the capture phase)

);

b.addEventListener("click", function () {

  console.log("b clicked");

});

c.addEventListener("click", function () {

  console.log("c clicked");

});

Tu ab jab capture phase complete ho jaye tu matlab saray things k listeners check ke lein tu phir bubbling phase start hoga. Matlab k ab ye hm nay button prr listener lagaya hai tu wo wala listenere chalay ga phirr uss say ooper orr phirr uss say ooper. Jab bubbling mein ye dhekengay tu C wala nai chalega qk uss par hm nay (capture phase ) lagaya thaa tu wo wala nai chalega.

Common Confusion Questions :

zyada log kahtay hain k ye event and event listener mein main kiaa farq hai tu ye hain k jab ham jo b lagatay hain event ko like hm nay lagaya “click” ka koi event tu ye event hai orr jo hb hm uss k agay function mein likhtay hain k click jab ho tu phirr ye ho tu wo event ka listener hota hai