JavaScript Events

What are Events?

An **event** is an **action** that happens in the browser.

 Example:

- Click a button

- Press a key

- Page load

- Mouse move

JavaScript **responds** to these actions using events.

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1 **Intro to Events**

Events allow JavaScript to **interact with users**.

Syntax:

<button onclick="showMsg()">Click Me</button>

<script>

function showMsg() {

  alert("Button clicked!");

}

</script>

---

2 **Mouse Events**

Mouse-related actions.

Common Mouse Events:

- onclick – mouse click

- ondblclick – double click

- onmouseover – mouse enters

- onmouseout – mouse leaves

Example:

```
<button onclick="alert('Clicked')">Click</button>
```

```
<div onmouseover="this.style.color='red'">
 Hover me
</div>
```

3️⃣ Keyboard Events

Triggered when a key is pressed.

Common Keyboard Events:

- onkeydown
- onkeyup
- onkeypress (old)

Example:

```
<input type="text" onkeydown="keyPress()">
```

```
<script>
function keyPress() {
 console.log("Key pressed");
}
</script>
```

4️⃣ Load Events

Triggered when the page or image loads.

Common Load Events:

- onload
- onunload

Example:

```
<body onload="pageLoaded()">
```

```
<script>

function pageLoaded() {

  alert("Page loaded");

}

</script>
```

5️⃣ Timing Events

Used to run code **after some time** or **repeatedly**.

Types:

- setTimeout() – run once
- setInterval() – run repeatedly

Examples:

```
setTimeout(() => {

  console.log("Runs after 2 seconds");

}, 2000);

setInterval(() => {

  console.log("Runs every 1 second");

}, 1000);
```

6️⃣ Manage Events

Managing events means **adding and removing events properly**.

addEventListener()

```
document

  .getElementById("btn")

  .addEventListener("click", function () {

    alert("Button clicked");
```

```
  });
```

removeEventListener()

```
function sayHi() {

  alert("Hi");

}



btn.addEventListener("click", sayHi);

btn.removeEventListener("click", sayHi);
```

✓ Best and modern way
✓ Multiple events allowed

7️⃣ Form Events

Form naal related events.

Common Form Events:

- onsubmit – form submit hunda

- onchange – value change hove

- onfocus – input te click

- onblur – input chon bahar auna

Example:

```
<form onsubmit="return checkForm()">

 <input type="text" onfocus="this.style.background='yellow'">

 <button>Submit</button>

</form>



<script>

function checkForm() {

 alert("Form submitted");

 return false;
```

```
}

</script>
```

8️⃣ Input Events

User jadon input likhda aa.

Events:

- oninput

- onchange

Example:

```
<input type="text" oninput="showText(this.value)">


<script>

function showText(val) {

  console.log(val);

}

</script>
```

9️⃣ Window Events

Browser window naal related.

Events:

- onresize

- onscroll

Example:

```
window.onresize = function () {

  console.log("Window resized");

};
```

🔟 Touch Events (Mobile)

Mobile devices layi use hunde aa.

Events:

- ontouchstart
- ontouchend

Example:

document.addEventListener("touchstart", function () {

  console.log("Screen touched");

});

1️⃣1️⃣ **Clipboard Events**

Copy–paste related events.

Events:

- oncopy
- onpaste

Example:

<input type="text" oncopy="alert('Copied!')">

1️⃣2️⃣ **Focus Events**

Input field focus related.

Events:

- onfocus
- onblur

Example:

<input onfocus="this.style.border='2px solid green'"

    onblur="this.style.border='1px solid black'">

Quick Exam Summary

- **Events** → User actions

- **Mouse Events** → Click, hover

- **Keyboard Events** → Key press

- **Load Events** → Page load

- **Timing Events** → setTimeout, setInterval

- **Manage Events** → add/removeEventListener