

DOM Events

Making things interactive

Events are everywhere

- Clicking on a button
- Hovering over a link
- Dragging and Dropping
- Pressing the Enter key

The Process

**We select an element and then
add an event listener**

"Listen for a click on this <button>"

"Listen for a hover event on the <h1>"

"Listen for a keypress event on text input"

The Syntax

To add a listener, we use a method called
addEventListener

```
element.addEventListener(type, functionToCall);
```

```
var button = document.querySelector("button");  
button.addEventListener("click", function() {  
    console.log("SOMEONE CLICKED THE BUTTON!");  
});
```

iterate through the list and add listener to each item in the list

An Example

Let's display a message when a button is clicked

```
<button>Click Me</button>  
<p>No One Has Clicked Me Yet</p>
```

```
var button = document.querySelector("button");  
var paragraph = document.querySelector("p");  
  
//SETUP CLICK LISTENER  
button.addEventListener("click", function() {  
    paragraph.textContent = "Someone Clicked the Button!";  
});
```



No One Has Clicked Me Yet

An Example

We could also rewrite it using a named function

```
var button = document.querySelector("button");  
var paragraph = document.querySelector("p");  
  
button.addEventListener("click", changeText);  
  
function changeText() {  
    paragraph.textContent = "Someone Clicked the Button!";  
}
```



No One Has Clicked Me Yet

So Many Events!

MDN lists over 300 different events! Here are some of the more common ones:

- click
- mouseover
- dblclick
- keypress
- drag

Another Example

Let's try a quick example using mouseOver

`<p>I dare you to mouse over me</p>`

```
var paragraph = document.querySelector("p");  
  
//SETUP MOUSE OVER LISTENER  
paragraph.addEventListener("mouseover", function() {  
    paragraph.textContent = "Stop hovering over me!";  
});
```

I dare you to mouse over me

Adding mouseout

Let's use *mouseout* so that our message changes back when the user is done hovering

```
var paragraph = document.querySelector("p");

//SETUP MOUSE OVER LISTENER
paragraph.addEventListener("mouseover", function() {
    paragraph.textContent = "Stop hovering over me!";
});

//SETUP MOUSE OUT LISTENER
paragraph.addEventListener("mouseout", function() {
    paragraph.textContent = "Phew, thank you for leaving me alone";
});
```

I dare you to mouse over me



A Minor Change

We can DRY up our code with one small change:

```
var paragraph = document.querySelector("p");

//SETUP MOUSE OVER LISTENER
paragraph.addEventListener("mouseover", function() {
    this.textContent = "Stop hovering over me!";
});

//SETUP MOUSE OUT LISTENER
paragraph.addEventListener("mouseout", function() {
    this.textContent = "Phew, thank you for leaving me alone";
});
```

I dare you to mouse over me



Another example:

Count the number of rows on a page:

```
document.querySelectorAll("tr").length - document.querySelectorAll("table").length
```