

Event Handlers



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Overview

Events

The Event Object

Handling Events

Event Listeners

Event Bubbling

Events

User Interface Events

load

select

unload

resize

abort

scroll

error

Mouse and Mouse Wheel Events

click

mousemove

dblclick

mouseout

mousedown

mouseover

mouseenter

mouseup

mouseleave

mousewheel

Keyboard and Text Events

keydown

keypress

keyup

textInput

Focus Events

blur

focus

focusin

focusout

HTML5 Events

contextmenu

beforeunload

Touch Events

touchstart

touchmove

touchend

touchcancel

The Event Object

Event Object Properties

bubbles

preventDefault()

cancelable

stopImmediatePropagation()

currentTarget

stopPropagation()

defaultPrevented

target

detail

trusted

eventPhase

type

Handling Events

```
// body of HTML  
<input type="button" value="Submit"  
      onclick="alert('foo')" />
```

Question

What shows in the browser
when the button is pressed?

Answer

System Dialog says:
"foo"

```
// body of HTML
<input id="submit1" type="button"
      onclick ="submitForm()" />
```

```
// JavaScript file
function submitForm() {
    console.log('in submitForm');
}
```

Question

What shows in the console
when the button is pressed?

Answer

in submitForm

```
// body of HTML
<input id="submit1" type="button"
      onclick="submitForm(this)" />
```

```
// JavaScript file
function submitForm(element) {
    console.log(element.id);
}
```

Question

What shows in the console when the button is pressed?

Answer

submit1

```
// body of HTML
<input id="submit1" type="button"
  onclick="submitForm(this, event)" />
```

```
// JavaScript file
function submitForm(element, event) {
  console.log(event.type);
}
```

Question

What shows in the console
when the button is pressed?

Answer

click


```
// body of HTML
<input id="submit1" type="button" />

// Javascript file
var button =
    document.getElementById('submit1');

button.onclick = function () {
    console.log('Button Clicked');
}
```

Question

What shows in the console
when the button is pressed?

Answer

Button Clicked

```
// body of HTML
```

```
<input id="submit1" type="button" />
```

```
// JavaScript file
```

```
var button = document.getElementById('submit1');
```

```
button.onclick = function () {  
    console.log('Button Clicked');  
}
```

```
button.onclick = null;
```

Question

What shows in the console when the button is pressed?

Answer

(nothing shows)

Event Listeners

```
// body of HTML
<input id="submit1" type="button" />

// JavaScript file
var button = document.getElementById('submit1');
button.addEventListener('click', function () {
    console.log('Button Clicked');
});
```

Q	What shows in the console when the button is pressed?		A	Button Clicked
---	---	--	---	----------------

```
// body of HTML
<input id="submit1" type="button" />

// JavaScript file
var button = document.getElementById('submit1');
button.addEventListener('click', function () {
    console.log('Button Clicked');
});
button.addEventListener('click', function () {
    console.log('Another Listener Function');
});
```

Q

What shows in the console
when the button is pressed?

A

Button Clicked
Another Listener Function

```
// body of HTML
<input id="submit1" type="button" />

// JavaScript file
var button = document.getElementById('submit1');

var submitHandler = function formSubmitHandler() {
    console.log('in formSubmitHandler()');
};

button.addEventListener('click', submitHandler);
```

Q

What shows in the console
when the button is pressed?

A

in formSubmitHandler()

```
// body of HTML
<input id="submit1" type="button" />

// JavaScript file
var button = document.getElementById('submit1');

var submitHandler = function formSubmitHandler() {
    console.log('in formSubmitHandler()');
};

button.addEventListener('click', submitHandler);
button.removeEventListener('click', submitHandler);
```

Q

What shows in the console
when the button is pressed?

A

(nothing)

Event Bubbling

// body of HTML

```
<div id="div1" style="width:200px; height:200px; background-color: blue;">  
    <div id="div2" style="width:100px; height:100px;  
        background-color: red;"></div>  
</div>
```

// JavaScript file

```
var div1 = document.getElementById('div1');  
var div2 = document.getElementById('div2');  
var clickHandler = function divClickHandler(event) {  
    console.log(this.id);  
};  
div1.addEventListener('click', clickHandler, false);  
div2.addEventListener('click', clickHandler, false);
```

Q

What shows in the console
when div2 is pressed?

A

div2
div1

// body of HTML

```
<div id="div1" style="width:200px; height:200px; background-color: blue;">  
    <div id="div2" style="width:100px; height:100px;  
        background-color: red;"></div>  
</div>
```

// JavaScript file

```
var div1 = document.getElementById('div1');  
var div2 = document.getElementById('div2');  
var clickHandler = function divClickHandler(event) {  
    console.log(this.id);  
};  
div1.addEventListener('click', clickHandler, true);  
div2.addEventListener('click', clickHandler, true);
```

Q

What shows in the console
when div2 is pressed?

A

div1
div2

// body of HTML

```
<div id="div1" style="width:200px; height:200px; background-color: blue;">
    <div id="div2" style="width:100px; height:100px;
        background-color: red;"></div>
</div>
```

// JavaScript file

```
var div1 = document.getElementById('div1');
var div2 = document.getElementById('div2');
var clickHandler = function divClickHandler(event) {
    console.log(this.id);
    event.stopPropagation();
};
div1.addEventListener('click', clickHandler, true);
div2.addEventListener('click', clickHandler, true);
```

Q

What shows in the console
when div2 is pressed?

A

div1

```
// body of HTML
<div id="div1" style="width:200px; height:200px; background-color: blue;">
    <div id="div2" style="width:100px; height:100px;
        background-color: red;"></div>
</div>
```

```
// JavaScript file
var div1 = document.getElementById('div1');
var div2 = document.getElementById('div2');
var clickHandler = function divClickHandler(event) {
    console.log(this.id);
    event.stopPropagation();
    event.preventDefault();
};
div1.addEventListener('click', clickHandler, true);
div2.addEventListener('click', clickHandler, true);
```

Q

What shows in the console
when div2 is pressed?

A

div1

Summary



- Events
- The Event Object
- Handling Events
- Event Listeners
- Event Bubbling