

Event-Driven Programming

Changing Pages Interactively

Accessing HTML elements

- To change a web page via JavaScript, must access HTML elements by code
 - Can access all `<h1>` tags or `` tags or ...
 - Can access elements by class name or ID name
- We'll access individual elements by ID
 - Add CSS classes, or change colors, or change texts, or ... do more via JavaScript code

Changing CSS Class by ID

```
HTML
3 </div>
5 <div id="d2">
7   Goodbye
8 </div>
9 <p>
10  <input type="button"
11    value="color change"
12    onclick="changeColor()">
13 </p>

CSS
6 .yellowback {
7   background-color: yellow;
8 }
9
10 .blueback {
11   background-color:
12     lightblue;
13 }

JS
1 function changeColor() {
2   var dd1 =
3     document.getElementById("d1")
4   ;
5   var dd2 =
6     document.getElementById("d2")
7   ;
8   dd1.className = "blueback";
9 }
```

Change CSS Classes

Hello
Goodbye

color change

Two <div> ID's

```
<div id="d1" >
```

```
    Hello
```

```
</div>
```

```
<div id="d2" >
```

```
    Goodbye
```

```
</div>
```

```
<p>
```

```
<input type="button" value="color change"
```

```
    onclick = "changecolor()" >
```

```
</p>
```

Two <div> ID's

```
<div id="d1" >  
  Hello  
</div>
```

```
<div id="d2" >
```

```
  Goodbye
```

```
</div>
```

```
<p>
```

```
<input type="button" value="color change"
```

```
  onclick = "changecolor()" >
```

```
</p>
```

Two <div> ID's

```
<div id="d1" >
```

```
  Hello
```

```
</div>
```

```
<div id="d2" >
```

```
  Goodbye
```

```
</div>
```

```
<p>
```

```
<input type="button" value="color change"
```

```
  onclick = "changecolor()" >
```

```
</p>
```

Two <div> ID's

```
<div id="d1" >
```

```
    Hello
```

```
</div>
```

```
<div id="d2" >
```

```
    Goodbye
```

```
</div>
```

```
<p>
```

```
<input type="button" value="color change"
```

```
  onclick = "changecolor()" >
```

```
</p>
```

creates event handler "on click"

Two <div> ID's

```
<div id="d1" >
```

```
  Hello
```

```
</div>
```

```
<div id="d2" >
```

```
  Goodbye
```

```
</div>
```

```
<p>
```

```
<input type="button" value="color change"
```

```
  onclick = "changecolor()" >
```

```
</p>
```



JS code goes here

Getting HTML Elements

```
function changecolor() {  
    var dd1 = document.getElementById("d1");  
    var dd2 = document.getElementById("d2");  
  
    dd1.className = "blueback";  
    dd2.className = "yellowback";  
}
```

Getting HTML Elements

```
function changecolor() {  
    var dd1 = document.getElementById("d1");  
    var dd2 = document.getElementById("d2");  
  
    dd1.className = "blueback";  
    dd2.className = "yellowback";  
}
```

Getting HTML Elements

```
function changecolor() {  
    var dd1 = document.getElementById("d1");  
    var dd2 = document.getElementById("d2");  
  
    dd1.className = "blueback";  
    dd2.className = "yellowback";  
}
```


Getting HTML Elements

```
function changecolor() {  
    var dd1 = document.getElementById("d1");  
    var dd2 = document.getElementById("d2");  
  
    dd1.className = "blueback";  
    dd2.className = "yellowback";  
}
```

Getting HTML Elements

```
function changecolor() {  
    var dd1 = document.getElementById("d1");  
    var dd2 = document.getElementById("d2");  
  
    dd1.className = "blueback";  
    dd2.className = "yellowback";  
}
```

Getting HTML Elements

```
function changecolor() {  
    var dd1 = document.getElementById("d1");  
    var dd2 = document.getElementById("d2");  
  
    dd1.className = "blueback";  
    dd2.className = "yellowback";  
}
```


Getting HTML Elements

```
function changecolor() {  
    var dd1 = document.getElementById("d1");  
    var dd2 = document.getElementById("d2");  
  
    dd1.className = "blueback";  
    dd2.className = "yellowback";  
}
```

Setting the CSS Class

```
function changecolor() {  
    var dd1 = document.getElementById("d1");  
    var dd2 = document.getElementById("d2");  
  
    dd1.className = "blueback";  
    dd2.className = "yellowback";  
}
```

Setting the CSS Class

```
function changecolor() {  
    var dd1 = document.getElementById("d1");  
    var dd2 = document.getElementById("d2");  
  
    dd1.className = "blueback";  
    dd2.className = "yellowback";  
}
```


Setting the CSS Class

```
function changecolor() {  
    var dd1 = document.getElementById("d1");  
    var dd2 = document.getElementById("d2");  
  
    dd1.className = "blueback";  
    dd2.className = "yellowback";  
}
```

Setting the CSS Class

```
function changecolor() {  
    var dd1 = document.getElementById("dd1");  
    var dd2 = document.getElementById("dd2");  
  
    dd1.className = "blueback";  
    dd2.className = "yellowback";  
}
```



A screenshot of a CSS editor window titled "CSS". It shows two CSS classes defined. The first class, ".yellowback", is on lines 6-8 and sets the background-color to yellow. The second class, ".blueback", is on lines 10-12 and sets the background-color to lightblue. The text is color-coded: selectors are yellow, property names are purple, and values are yellow.

```
5  
6 .yellowback {  
7     background-color: yellow;  
8 }  
9  
10 .blueback {  
11     background-color:  
12     lightblue;  
13 }
```

Setting the CSS Class

```
function changecolor() {  
    var dd1 = document.getElementById("dd1");  
    var dd2 = document.getElementById("dd2");  
  
    dd1.className = "blueback";  
    dd2.className = "yellowback";  
}
```



```
5  
6 .yellowback {  
7     background-color: yellow;  
8 }  
9  
10 .blueback {  
11     background-color:  
12     lightblue;  
13 }
```


Changing CSS Class by ID

```
HTML
5 </div>
6 <div id="d2">
7   Goodbye
8 </div>
9 <p>
10 <input type="button"
    value="color change"
    onclick="changeColor()">
11 </p>

CSS
5
6 .yellowback {
7   background-color: yellow;
8 }
9
10 .blueback {
11   background-color:
    lightblue;
12 }

JS
1 function changeColor() {
2   var dd1 =
    document.getElementById("d1")
3   ;
4   var dd2 =
    document.getElementById("d2")
5   ;
6   dd1.className = "blueback";
```

Change CSS Classes

Hello
Goodbye

color change

Changing HTML Text

```
function changetext() {  
    var dd1 = document.getElementById("d1");  
    var dd2 = document.getElementById("d2");  
  
    dd1.innerHTML = "Bonjour";  
    dd2.innerHTML = "Sayonara";  
}
```

Changing HTML Text

```
function changetext() {  
    var dd1 = document.getElementById("d1");  
    var dd2 = document.getElementById("d2");  
  
    dd1.innerHTML = "Bonjour";  
    dd2.innerHTML = "Sayonara";  
}
```

Changing HTML Text

```
function changetext() {  
    var dd1 = document.getElementById("d1");  
    var dd2 = document.getElementById("d2");  
  
    dd1.innerHTML = "Bonjour";  
    dd2.innerHTML = "Sayonara";  
}
```

Changing HTML Text

```
function changetext() {  
    var dd1 = document.getElementById("d1");  
    var dd2 = document.getElementById("d2");  
  
    dd1.innerHTML = "Bonjour";  
    dd2.innerHTML = "Sayonara";  
}
```


Changing HTML Text

```
HTML
7  / Goodbye
8  </div>
9  <p>
10 <input type="button"
    value="color change"
    onclick="changeColor()">
11 <input type="button"
    value="text change"
    onclick="changeText()">
12 </p>

CSS
1 div {
2   width: 200px;
3   font-size: 28px;
4 }
5
6 .yellowback {
7   background-color: yellow;
8 }
9
10 .blueback {

JS
14 function changeText() {
15   var dd1 =
    document.getElementById("d1")
    ;
16   var dd2 =
    document.getElementById("d2")
    ;
17   dd1.innerHTML = "Bonjour";
18   dd2.innerHTML = "Sayonara";
19 }
```

Change Many Things

Hello
Goodbye

color change text change