

# More Event-Driven Programming

Chapter 19

## Exercise

- Make a button whose label toggles between "on" and "off".

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## Solution

- HTML snippet:

```
<div>
  <input type="button" id="toggle" value="on"
    onclick="flip();" />
</div>
```

- JavaScript file:

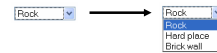
```
function flip() {
  var current = document.getElementById("toggle").value;
  if (current == "on") {
    document.getElementById("toggle").value = "off";
  } else {
    document.getElementById("toggle").value = "on";
  }
}
```

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## Drop-Down List: `<select>`

- Menu of choices that collapse and expand.
- Each choice is represented by `<option>` element.
- Example:

```
<select id="choices">
  <option>Rock</option>
  <option>Hard place</option>
  <option>Brick wall</option>
</select>
```



- When you select an option, the selected option label is stored in `document.getElementById("<ID>").value`.

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## Change Event

- Change event handler is set by `onchange` attribute
- Example:

```
<select id="choices" onchange="showPick();">
  <option>Rock</option>
  <option>Hard place</option>
  <option>Brick wall</option>
</select>
```

- JavaScript file:

```
function showPick() {
  var choice = document.getElementById("choices").value;
  alert("You picked: " + choice);
}
```

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## Radio Button: `<input />`

- Set of mutually exclusive choices
- Attribute `type` must be set to "radio"
- Attribute `name` must be the same for all the choices
- Example:

```
<input type="radio" name="cards" />MasterCard
<input type="radio" name="cards" />Visa
<input type="radio" name="cards" />Discover
```

© MasterCard © Visa © Discover

- Poor usability: Must click exactly on circle to activate radio button.

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## Text Labels: <label>

- When used with radio buttons, makes entire label clickable for improved usability.
- Example:

```
<label><input type="radio" name="cards" />MasterCard</label>
<label><input type="radio" name="cards" />Visa</label>
<label><input type="radio" name="cards" />Discover</label>
```

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## Exercise

- Using the three radio buttons from the previous slides, write code to pop up a box when the user activates a radio button.

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## HTML: First Attempt

```
<label>
  <input type="radio" name="cards" id="cards"
    value="MasterCard" onchange="showCard();" />MasterCard
</label>
<label>
  <input type="radio" name="cards" id="cards"
    value="Visa" onchange="showCard();" />Visa
</label>
<label>
  <input type="radio" name="cards" id="cards"
    value="Discover" onchange="showCard();" />Discover
</label>
```

- Remember, the `id` attribute has to be unique across all HTML elements!

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## HTML: Second Attempt

```
<label>
  <input type="radio" name="cards" id="cards1"
    value="MasterCard" onchange="showCard();" />MasterCard
</label>
<label>
  <input type="radio" name="cards" id="cards2"
    value="Visa" onchange="showCard();" />Visa
</label>
<label>
  <input type="radio" name="cards" id="cards3"
    value="Discover" onchange="showCard();" />Discover
</label>
```

- How will `showCard` know which button was clicked?

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## HTML: Third Attempt

```
<label>
  <input type="radio" name="cards" id="cards1"
    value="MasterCard" onchange="showCard1();" />MasterCard
</label>
<label>
  <input type="radio" name="cards" id="cards2"
    value="Visa" onchange="showCard2();" />Visa
</label>
<label>
  <input type="radio" name="cards" id="cards3"
    value="Discover" onchange="showCard3();" />Discover
</label>
```

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## JavaScript: First Attempt

```
function showCard1() {
  var value = document.getElementById("cards1").value;
  alert("You picked: " + value);
}

function showCard2() {
  var value = document.getElementById("cards2").value;
  alert("You picked: " + value);
}

function showCard3() {
  var value = document.getElementById("cards3").value;
  alert("You picked: " + value);
}
```

- Very repetitive... can we do better?

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## JavaScript: Solution

```
function showCard1() {
    var value = document.getElementById("cards1").value;
    alert("You picked: " + value);
}

function showCard2() {
    var value = document.getElementById("cards2").value;
    alert("You picked: " + value);
}
```



```
function showCard(num) {
    var value = document.getElementById("cards" + num).value;
    alert("You picked: " + value);
}
```

*id*

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## HTML: Solution

```
<label>
  <input type="radio" name="cards" id="cards1"
    value="MasterCard" onchange="showCard(1);" />MasterCard
</label>
<label>
  <input type="radio" name="cards" id="cards2"
    value="Visa" onchange="showCard(2);" />Visa
</label>
<label>
  <input type="radio" name="cards" id="cards3"
    value="Discover" onchange="showCard(3);" />Discover
</label>
```

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## Changing Your Inner HTML

Element

Start tag	Content	End tag
-----------	---------	---------

```
<p class="foo">This is a paragraph.</p>
```

Attribute name value

`document.getElementById("<ID>").innerHTML`

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## Changing Your Inner HTML

### ■ HTML snippet:

```
<div>
  Name: <input type="text" id="name" onkeyup="update();" />
  <br />
  <p id="text">
    Hello, world!
  </p>
</div>
```

### ■ JavaScript file:

```
function update() {
    var name = document.getElementById("name").value;
    var newText = "Hello, <strong>" + name + "</strong>!";
    document.getElementById("text").innerHTML = newText;
}
```

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## Inline Section: <span>

### ■ Generic inline element

### ■ Example:

```
<div>
  Name: <input type="text" id="name" onkeyup="update();" />
  <br />
  Dear <span id="company">Google</span>, <br />
  Please give me a job. <br />
</div>
```

### ■ JavaScript file:

```
function update() {
    var name = document.getElementById("name").value;
    document.getElementById("company").innerHTML = name;
}
```

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## Extra: Class Style

### ■ You can style a diverse group of HTML elements using the class attribute.

- Elements with the same class attribute will be styled the same way.

### ■ Example CSS rule for highlight class:

```
.highlight {
  background-color: yellow;
}
```

### ■ For more information, see:

- <http://htmldog.com/guides/cssintermediate/classid/>

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