

JavaScript: Events and Forms

Acknowledgements

- *Slides for this course are from:*
 - Fundamentals of Web Development by Connolly and Hoar
 - Murach's HTML5 and CSS3 by Zak Ruvalcaba and Anne Boehm. Fresno, CA: Mike Murach & Associates
 - Internet and the World Wide Web. How to Program. P. Deitel, H. Deitel and A. Deitel.
 - Principles of Web Design, Joel Sklar, Course Technology, Cengage Learning
 - JavaScript and jQuery the Missing Manual by David Sawyer McFarland, O'Reilly
 - Code.org
 - Other Textbooks / Online Resources
 - Rachel Adler (my own thoughts/code)

Forms

- In HTML, the `<form>` element is used to create a form for user input:
- `<form>`
...
`</form>`

Buttons

Type	Description
<code><input type="submit"></code>	Creates a button that submits the form data to the server.
<code><input type="reset"></code>	Creates a button that clears any of the user's already entered form data.
<code><input type="button"></code>	Creates a custom button. This button may require JavaScript for it to actually perform any action.
<code><input type="image"></code>	Creates a custom submit button that uses an image for its display.
<code><button></code>	<p>Creates a custom button. The <code><button></code> element differs from <code><input type="button"></code> in that you can completely customize what appears in the button; using it, you can, for instance, include both images and text, or skip server-side processing entirely by using hyperlinks.</p> <p>You can turn the button into a submit button by using the <code>type="submit"</code> attribute.</p>

Four buttons that are created by the input element

```
<input type="button" name="message" value="Alert Me">  
<input type="submit" name="checkout" value="Checkout">  
<input type="reset" name="resetform" value="Reset">  
<input type="image" src="images/submit.jpg"  
    alt="Submit button" width="114" height="42">
```

A button that is created by the button element

```
<button type="submit">  
    Add to Cart  
</button>
```

The buttons in a browser



Events

- Example of an HTML Event:
 - A button was clicked
- When that happens you want to do something
- JavaScript lets you execute code when events are detected.
- JavaScript can happen inside a button!

Our First Event - onclick

- Button:
- `<button type="button">Click Me!</button>`

Click Me!

- JavaScript – try it:

JavaScript Code

- `<button type="button" onclick="alert('Hello world!')">Click Me!</button>`

Functions

onClick – clicking a button

```
function buttonClicked() {  
    document.write("hi from button  
click");  
}
```

JavaScript function

```
<button type="button" onclick="buttonClicked()">Go  
</button><br>
```



Another Example

- ```
<!DOCTYPE html>
<html>
<head>
<script>
function myFunction()
{
 alert("Hello World!");
}
</script>
</head>

<body>
<button onclick="myFunction()">Try it</button>
</body>
</html>
```

# Another Example

- `<button  
onclick="document.getElementById('demo'  
)innerHTML=Date()">The time  
is?</button>`
- `<p id="demo"></p>`

# JavaScript Events

- Events include:  
    onclick, onload, onmouseover,  
    onmouseout...

[https://www.w3schools.com/js/js\\_events.asp](https://www.w3schools.com/js/js_events.asp)

# mouse over / mouse out

```
function mousedOver() {
 pblock.innerHTML="Hello!";
}
function mouseOut() {
 pblock.innerHTML = "Goodbye!";
}
```

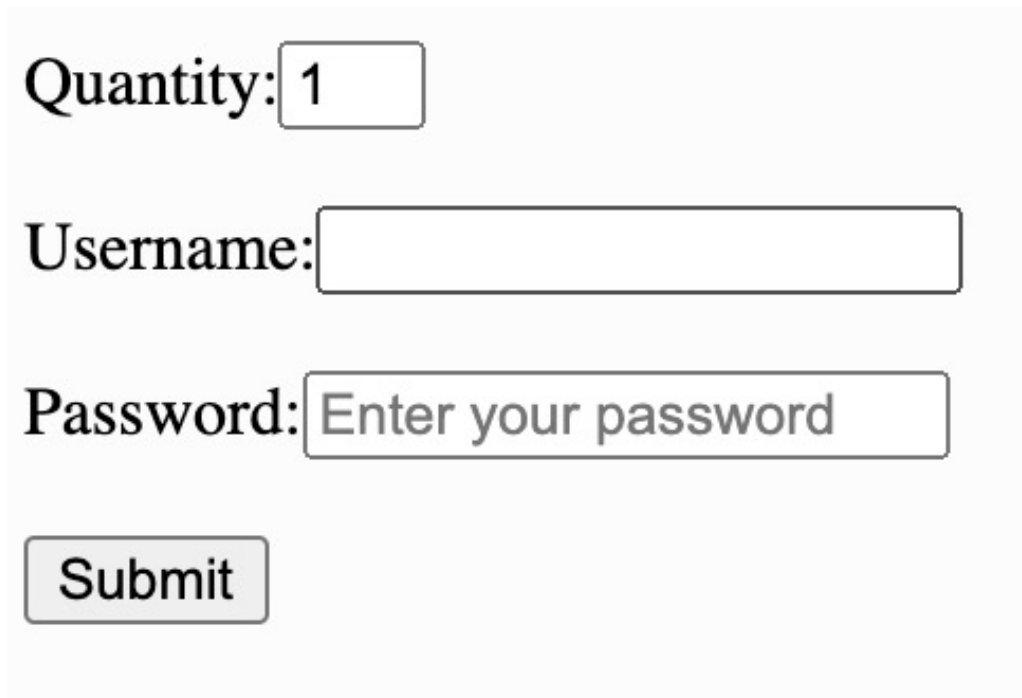
```
<p id="pblock" onmouseover="mousedOver()"
onmouseout="mouseOut()">I dare you to put your mouse
here!</p>
```

```
<form>
Quantity:<input type="number" value="1" min="1"
max="5">

Username:<input type="text" name="test">

Password:<input type="password" name="password"
maxlength="6" placeholder="Enter your password">

<input type="submit">
</form>
```



Quantity: 1

Username:

Password:

# Add 2 numbers

```
<form>
```

```
<input name="x" type="number" value="100"> +
<input name="y" type="number" value="100">

<input type="button" value="Calculate"
 onClick="result.value = parseInt(x.value) +
 parseInt(y.value) ">
```

```



```

```
Total: <output name="result"></output>
```

```
</form>
```

Enter numbers in both fields and click the Calculate button.

105 + 115

Calculate

Total: 220

# Associating labels and input elements

```
<label for="f-title">Title: </label>
```

```
<input type="text" name="title" id="f-title"/>
```

Useful for CSS and Accessibility!

## The HTML for the form

```
<label for="firstname">First name:</label>
<input type="text" name="firstname" id="firstname"
autofocus>

<label for="lastname">Last name:</label>
<input type="text" name="lastname" id="lastname">

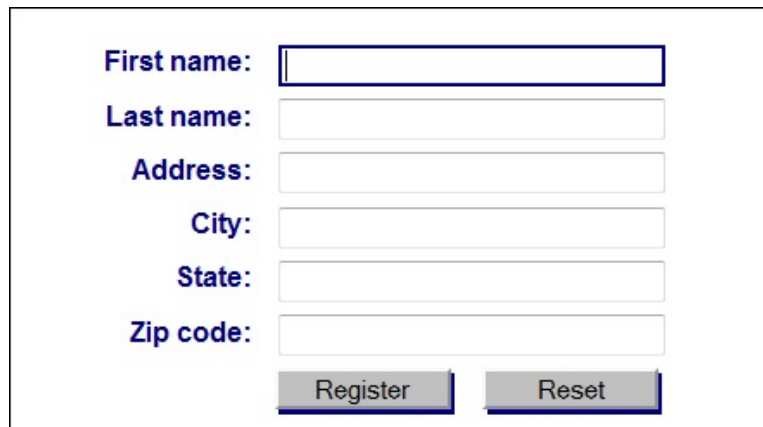
<label for="address">Address:</label>
<input type="text" name="address" id="address">

<label for="city">City:</label>
<input type="text" name="city" id="city">

<label for="state">State:</label>
<input type="text" name="state" id="state">

<label for="zip">Zip code:</label>
<input type="text" name="zip" id="zip">

<input type="submit" name="register" id="button"
value="Register">
<input type="reset" name="reset" id="reset">
```



First name:

Last name:

Address:

City:

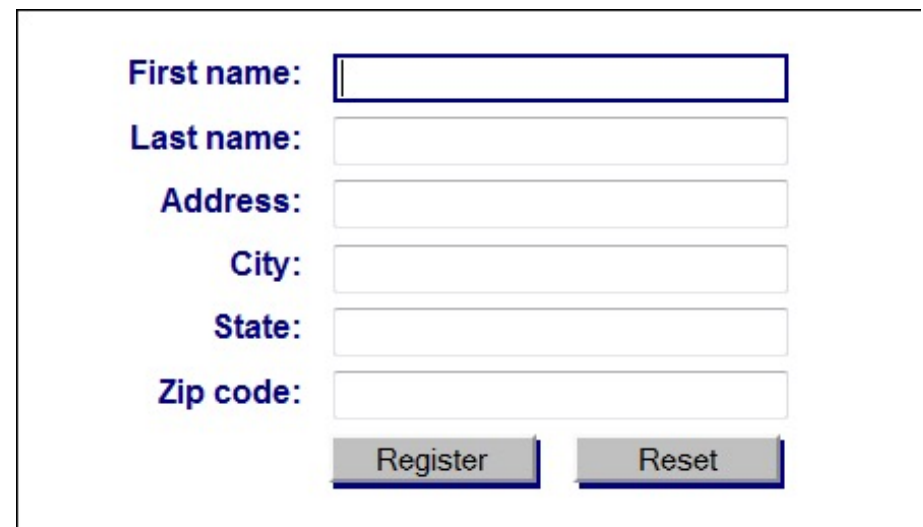
State:

Zip code:



# The CSS for the form

```
body {
 font: 90% Arial, Helvetica, sans-serif;
 margin: 20px; }
label {
 color: navy;
 float: left;
 width: 8em;
 text-align: right;
 font-weight: bold;
}
input {
 width: 15em;
 margin-left: 1em;
 margin-bottom: .5em;}
input:focus {
 border: 2px solid navy; }
#button, #reset {
 width: 7em;
 box-shadow: 2px 2px 0 navy;
 background-color: silver; }
#button { margin-left: 9.5em; }
```



First name:

Last name:

Address:

City:

State:

Zip code: