IT350 Web and Internet Programming

SlideSet #11: Dynamic HTML
(some from Chapter 9, 11, 12 & 13 of book)

What can we do with DHTML?
What can we do with DHTML?

What techniques do we need?

• Find the HTML object we want to change
  
  var domLink = document.getElementById("linkToAnimal");

• Change the object’s:
  – HTML properties
    
    domLink.href = "cat.html";

  – CSS properties
    
    domLink.style.backgroundColor = "blue";

• Register event handler
  
  <input type = "button" value = "change" onclick = "changeLink()">
Cash Register Example

```javascript
<script type = "text/javascript">
    var totalCents = 0;

    function addMoney(extraCents) {
        totalCents += extraCents;

        var domTotal = document.getElementById("moneyTotal");
        domTotal.innerHTML = "$" + totalCents / 100;

        var domLabel = document.getElementById("moneyLabel");
        if ( (totalCents % 10) == 0) {
            domLabel.style.color = "red";
        } else {
            domLabel.style.color = "blue";
        }
    }
</script>

<html>
<head>
    <meta charset = "utf-8" />
    <title>Bigger</title>
    <script type = "text/javascript">
    </script>
</head>
<body>
    <p> Welcome to my page! </p>
</body>
</html>
```

Exercise #1 – Change this code to make the <p> element have a large font when you move the mouse over it.

```html
<!DOCTYPE html>
<html>
    <head>
        <meta charset = "utf-8" />
        <title>Bigger</title>
        <script type = "text/javascript">
        </script>
    </head>
    <body>
        <p> Welcome to my page! </p>
    </body>
</html>
```
Form Validation Example

```javascript
// Returns true if the number of steps is okay
function checkAttending() {
    var number = document.getElementById("numAttend").value;
    if ( number >= 1 && number <= 100 )
        return true;
    else {
        window.alert("Please enter a value between 1 and 100.");
        return false;
    }
}

// Asks user to confirm submission, returns true if ok
function confirmSubmit() {
    if (!checkAttending())
        return false;
    if (window.confirm("Do you want to submit?"))
        return true;
    else
        return false;
}
</script>

<form method="get" onsubmit="return confirmSubmit()"
action="http://www.usna.edu/Users/cs/adina/teaching/it350/tools/FormChecker/submit.cgi">
    Last name:  <input type="text" name="lastname" />
    Number attending(1-100):  
        <input type="text" name="numAttend" id="numAttend" onblur="return checkAttending()" />
    <input type="submit" value="Sign Up" />
</form>
</body>
</html>

All Kinds of Events

- onblur
- onfocus
- onchange
- onclick
- onload (<body> only)
- onmousedown, onmouseup, onmouseout, onmouseover, onmousemove
- onselect (<input>, <textarea> only)
- onsubmit (<form> only)
- onunload (<body> only)
Exercise #2 – Modify so that clicking on the button changes target of `<a>` element to “dog.html”

```html
<!DOCTYPE html>
<html>
<head>
    <meta charset = "utf-8" />
    <title>Change Link</title>
    <script type = "text/javascript">
        
    </script>
</head>
<body>
<p><a href="cat.html">See some animals!</a></p>
<form>
    <input type="button" value="Change animal" />
</form>
</body>
</html>
```

Exercise #3 – Write a form to read in a password from the user in two boxes. When they submit the form, proceed only if the passwords are the same.