SlideSet #12: Dynamic HTML

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
  
  ```javascript
  var domLink = document.getElementById("linkToAnimal");
  ```

- Change the object’s:
  - HTML properties
    ```javascript
    domLink.href = "cat.html";
    ```
  
  - CSS properties
    ```javascript
    domLink.style.backgroundColor = "blue";
    ```
Cash Register Example

```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>  </head>
<body>
<table border="2">
<tr> <td id ="moneyLabel" > Total money: </td>
    <td colspan ="2" align="center" id="moneyTotal" > $0.00 </td>
</tr>
<tr>
    <td style="background-color: red" onclick="addMoney( 5)" / > $0.05 </td>
    <td style="background-color: white" onclick="addMoney(10)" / > $0.10 </td>
    <td style="background-color: blue" onclick="addMoney(25)" / > $0.25 </td>
</tr>
</table> </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>
<body>
<form name="game" method="get" action="submit.cgi"
onsubmit="return confirmSubmit()" >
</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 #1 – Change this code to make the <p> element have a bigger font when you move mouse over it.

```html
<html xmlns = "http://www.w3.org/1999/xhtml">
  <head>
    <title>Bigger</title>
    <script type = "text/javascript">
     ...
    </script>
  </head>
  <body>
    <p>
      Welcome to my page!
    </p>
  </body>
</html>
```
Exercise #2 – Modify so that clicking on the button changes target of `<a>` element to “dog.html”

```html
<html xmlns = "http://www.w3.org/1999/xhtml">
<head>
    <title>Change Link</title>
    <script type = "text/javascript">
    
    </script>
</head>
<body>
    <a href="cat.html">
        See some animals!
    </a>
    
    <form action="">
        <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.