SY306 Web and Databases for Cyber Operations

Slide Set #8: Dynamic HTML

(some from Chapter 9, 12 & 13 of “Web” textbook)

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

Event-Driven Programming and DOM

- Events
- Event handlers
- DOM
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";
    ```

- Register event handler
  ```html
  <input type = "button" value = "change" onclick = "changeLink()">
  <input id = "changeButton" type = "button" value = "change">
  domButton.addEventListener("click", changeLink)
  ```

Cash Register Example

```html
<script type = "text/javascript">
</script>  </head>  
<body>  
<table border="1">
  <tr>  
    <td id ="moneyLabel" > Total money: </td>
    <td colspan = "2" id ="moneyTotal" >$0.00</td>
  </tr>  
  <tr>
    <td class= "cents" >$0.05</td>
    <td class= "cents" >$0.10</td>
    <td class= "cents" >$0.25</td>
  </tr>
</table> </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

```html
<script type = "text/javascript">
</script>
<form method="get" onsubmit="return confirmSubmit()"
action="http://www.usna.edu/Users/cs/adina/teaching/sy306/tools/FormChecker/submit.cgi" >
<p> <label>Last name: <input type="text" name="lastName" id = "lastName" onblur="return checkLastName()" /></label>
</p>
<br/>
<label>Number attending(1-100):
<input type="text" name="numAttend" id="numAttend" onblur="return checkAttending()" />
</label>
<br/>
<input type="submit" value="Sign Up" />
</form></body></html>
```
All Kinds of Events

• onblur
• onfocus
• onchange
• onclick
• ondblclick
• onload (body only)
• onmousedown, onmouseup, onmouseout, 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.