cis20.2-spring2010-sklar, lab III.5
AJAX lab

This lab will give you an opportunity to get some hands-on experience with AJAX.
If you don't already know something about Javascript, then you should run through the basics of the w3schools' Javascript tutorial. It is linked on the class web page (under syllabus) or go to `http://www.w3schools.org`.

A. First AJAX program: displaying a text file

1. Log onto mingus (146.245.250.181).
2. Go to your `public_html` directory and create an HTML file that contains the following code:

```
<html>
<head>
<script type="text/javascript">
function loadXMLDoc() {
  req=new XMLHttpRequest();
  req.onreadystatechange=function() {
    if (req.readyState==4 && req.status==200) {
      document.getElementById("div1").innerHTML=req.responseText;
    }
  } // end of onreadstatechange function
  req.open("GET","myinfo.txt",true);
  req.send();
} // end of loadXMLDoc()
</script>
</head>
<body>
<div id="div1">my first ajax program</div>
<input type="button" id="button1" value="click me!" onclick="loadXMLDoc()"/>
</body>
</html>
```

3. Then create a TEXT file called "myinfo.txt" that contains only the text: `hello world`
4. Now try running your HTML file in your browser. You should see one button. You should be able to click on the button and see the content of your text file displayed in the browser window.

B. Second AJAX program: displaying an XML file

1. Copy your HTML file, above, to a new file name.
2. Modify it so that instead of reading the text file "myinfo.txt" it reads an XML file. You can either have it read the XML file that you created in the last lab (lab III.4) or you can use the one containing the list of CDs that we used in class. If you choose to use that file, then you can copy it from my `public_html` folder into yours. The file name is `cd_catalog.xml`
3. Try running your HTML file now. It should just display all the text in the file, ignoring the tags. It will look messy.

C. Third AJAX program: parsing an XML file and formatting the output

1. Copy your HTML file, above, to a new file name.
2. Modify the content of the `onreadystatechange` event handling function to contain the following:

```
if (req.readyState==4 && req.status==200) {
  datalist=req.responseXML.documentElement.getElementsByTagName("CD");
  for (i=0;i<datalist.length;i++) {
    item=datalist[i].getElementsByTagName("TITLE");
    try {
      document.write( item[0].firstChild.nodeValue + "<br>" );
    }
    catch (er) {
    }
  } // end for
} // end if
```

3. Try running it, and you should see a list of TITLE fields, one for each CD record listed in the XML file—if you read from the `cd_catalog.xml` file. If you read from your own XML file, then modify the tags above (CD and TITLE) to match tags in your file.
4. Now modify this so that the output looks lovely (i.e., formatted nicely). Try running the example `ajax3.html` from last class (it is linked on the syllabus page), to get some ideas. You can also look at the source code for that example by downloading the linked file. You can also access the file (and the XML sample data) by going to the "examples" link on the class home page.