

Week 2 Lecture 6

Applied

What's in this lecture?

- AJAX: Asynchronous JavaScript and XML
- (Actually, we'll use JSON instead)

What is AJAX?

- In the old days of the web, each web page required the server to create **all** the content
- The only techniques for splitting up sections were **frames** (ugh) and **iframes** (ick, but better than frames)
- What developers **really** want is a way to ask the server for data on-demand and update the page with new data without changing the browser location

For Example...

- Open Twitter.com, go to your timeline feed
- After a few seconds, the page will say “X new tweets”
- How does it do that?

AJAX & Twitter

- You can see all this in FireBug for yourself
- The browser executes JavaScript on the page (that Twitter wrote) that requests data periodically from the server
- If new data is available, it updates the page with a message that you can see

How do we do it?

- We'll use JQuery, which has fantastic support for AJAX & JSON
- We create an HTML page that includes JQuery, a form 'select' box, and our magical JavaScript
- Based on the contents of the form 'select', we load one of 2 JSON files from the server using AJAX

The Form

```
<html>...  
<body>  
  <form ...>  
    <select id="a_select" onchange="do_it()">  
      <option value="foo.json.txt">foo</option>  
      <option value="bar.json.txt">bar</option>  
    </select>  
  </form>  
</body>  
</html>
```

The JSON

foo.json.txt

```
{"name": "foo", "message": "this is Foo"}
```

bar.json.txt

```
{"name": "bar", "message": "this is Bar"}
```


The Magic!

```
<script>
function do_it() {
  var the_file = $("#a_select")[0].value;

  $.getJSON("http://localhost:3000/" + the_file,
    function(data) {
      $("#the_message")[0].innerHTML =
        "<h1>" + data.name + "</h1><p>" +
          data.message + "</p>";
    });
}
</script>
```

Exercises

- Modify the example to include a 'baz.json' file that is loadable from the select box
- Create a twitter profile, and add the Twitter profile widget into one of your web pages

Resources

- JQuery AJAX: <http://api.jquery.com/category/ajax/>
- JQuery in general: <http://jquery.com>