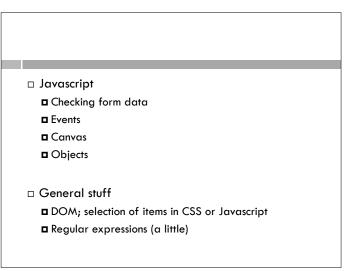
ECS 89

Final
□ Comprehensive; so review midterm material
□ Django
■ Relationship to Apache, sqlite
■ Model, view, template; what code goes where?
■ Working with a database – tables, ForeignKey
■ When are functions called?



JQuery

- □ A library (or collection of libraries) to simplify and extend Javascript
- □ Kind of like the modules in Python, but taking over the language
- ☐ There are other Javascript libraries but JQuery is by far the biggest
- □ Nice Web animation tricks
- □ Much simpler Ajax data fetching
- □ Different syntax than pure Javascript

Recall Ajax interaction

- □ Need to define a callback function for button or whatever (to do the interaction with the user); this function initiates loading more data from the server
- □ Need a second callback to wait for the load to complete
- ☐ They have to share the same XMLHttpRequest object, since that is going to contain the response
- ...all of this adds up to some complexity.

Importing the JQuery library

- Can get it from Google, Amazon, Yahoo, some other commercial server, or load it onto your own server
- □ Google:

```
<script src="https://ajax.googleapis.com/ajax/libs/jquery/
1.4.4/jquery.js"></script>
```

□ Own server:

```
<script src="jquery.js"></script>
```

JQuery does this for you

```
$(document).ready( function() {
    $("button").click(function () {
        $('#myDiv').load("ajax_info.txt");
    });
});
```

- □ \$() selects a part of the DOM, same selectors as CSS
- □ \$(document) is the whole document
- □ \$("button") is all button objects
- □ \$("#myDiv") is the object with id="myDiv"

JQuery does this for you

```
$(document).ready( function() {
    $("button").click(function () {
        $('#myDiv').load("ajax_info.txt");
    });
});
```

- □ Ready event is when document is completely loaded and DOM created in browser
- □ That last "load" method loads the contents of the element from URL "ajax_info.txt" on server

Is this worth the different syntax?

□ There's more different syntax, but then again there are a lot more cool tricks

Fades

```
$("#removeBut").click(function () {
    $("canvas").fadeOut(2000);
});

$("#addBut").click(function () {
    $("canvas").fadeIn(2000);
});

Like magic!
```

Slides

```
$("#removeBut").click(function () {
    $("canvas").slideUp(2000);
});

$("#addBut").click(function () {
    $("canvas").slideDown(2000);
});
```

□ Seriously, how is this done?

Ajax from other servers

- □ Attempt at security: ajax is only able to get files from the same server as the Web page it's on.
- □ This is to prevent arbitrary Web pages from trying to access BofA, for instance, through Ajax, if you happen to be logged in to BofA.
- But this is so annoying! I want to add a Google
 Map to my Arboretum page!
- □ Work-around: JSONP. As far as I can tell, this is like, well, OK, you can get files from other sites.

Additional library called GoMap

- □ I had to download the library, which was compressed Javascript
- $\ \square$ I added a map JQuery command and a <div> to hold the map.
- □ Wow

Where I learned all this - books!

- □ JavaScript & ¡Query: The Missing Manual David McFarland
- JavaScript: The Good Parts
 Douglas Crockford
- □ Python Web Development with Django Forcier, Bissex, Chun
- □ Learning Web DesignJennifer Robbins