LAST WEEK ON IO LAB

Overview of HTML, CSS, JavaScript, and jQuery.

Introduction to browser extensions.

Details about Project 1, Delicious Memex, which is due next Tuesday at noon.
INFORMATION ORGANIZATION LAB

IO LAB

INFORMATION ORGANIZATION LAB
When you use jQuery, you are writing JavaScript and using a library (jQuery) that is more convenient than the built-in browser JavaScript methods.
What does jQuery look like? Usually referenced using an alias, the dollar sign. Writing $(some element) is the same as writing jQuery(some element).

In the last class, I said that there were two steps to using jQuery. What were they? An important thing to keep in mind is that whenever you are using jQuery, you are working with DOM elements.
### JQuery: Events

```
$(element).eventType(function(){
    // JavaScript

});
```

<table>
<thead>
<tr>
<th>Events</th>
<th>Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Events</td>
<td>ready, load, scroll</td>
</tr>
<tr>
<td>Mouse Events</td>
<td>click, hover, mouseenter, mouseleave</td>
</tr>
<tr>
<td>Keyboard Events</td>
<td>keypress, keydown, keyup</td>
</tr>
<tr>
<td>Forms Events</td>
<td>submit, focus, blur</td>
</tr>
</tbody>
</table>

Complete list at [http://api.jquery.com/category/events/](http://api.jquery.com/category/events/)

JQuery makes it easy to bind events to DOM elements. This is called event binding.
JQUERY: LIVE EVENTS

```javascript
$('li').click(function(){
    // Do something
});

$('li').live('click', function(){
    // Do Something
});
```

A normal event binding attaches to all matched elements when it is called. A live event calls the callback function when the event occurs on all matched element, current and future.
jQuery: Get And Set

```
<a href="http://berkeley.edu">UC Berkeley</a>

$('#a').text();

$('#a').text('Hello world');

$('#a').attr('href');

$('#a').attr('href', 'http://google.com');
```

Complete list at http://api.jquery.com/category/attributes/

jQuery provides a wide variety of methods to get and set attributes from DOM elements. As you would hope, the get and set methods are very similar.
jQuery provides shortcuts for things you might commonly do, like get and set attributes from form elements. In particular, it is good with form elements.

Complete list at http://api.jquery.com/category/forms/
See the documentation for .val() in particular: http://api.jquery.com/val/
JQUERY: CSS

<h1>Hello world</h1>

```javascript
$('h1').css('color', 'red');
$('h1').addClass('important');
$('h1').hide();
$('h1').fadeIn();
```


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“THIS” IN JAVASCRIPT

```javascript
var person = {
    name: 'Mohit',
    sayHello: function() {
        alert('Hello, ' + this.name);
    }
}
```

This is a special variable. It is the object in the current context.
“THIS” IN JQUERY

```
$('li').click(function(){
  $('li').hide();
});

$('li').click(function(){
  this // DOM element
  $(this) // jQuery object
});
```

“this” is a variable in JavaScript that is the current context or scope.
In this case it is a reference to the person object.
AJAX AND CROSS-SITE SCRIPTING

Web 2.0 FTW
AJAX WHAT?

Asynchronous Javascript and XmlHttpRequest
AJAX WHAT?

$.get('http://gmail.com', function(xml){
    console.log(xml);
});
SAME-ORIGIN POLICY

(Alas, no cross-site scripting!)
WORKAROUNDS

(Cross-site scripting, yay!)

- Proxy server
- JSONP
- Trusted contexts
IN-CLASS EXERCISE

Round One

- Sketch what you want to do.
- Write the HTML
- Write the JavaScript & jQuery
FOR NEXT WEEK

Project 1, Delicious Memex, is due by noon, Tuesday, September 21st.

Email your project (or a link where we can access your project) to npdoty@ and ryan@.

Include a brief description of the concept and implementation.

Comments about individual project, citing code. (Do not need to cite either one of us if you base your project on the main Delicious Trailmaker).