jQuery and YUI

CS 297
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jQuery

- Lightweight cross-browser JavaScript library
- Supports various browsers: IE 6.0+, Firefox 2+, Safari 3.0+, Opera 9.0+, and Chrome.
- Size: 68 KB (minified), 156KB (uncompressed)
- Features: easy DOM manipulations, Events, CSS manipulations, Effects/ animations, Ajax, plugins, and utilities.
- Most popular JavaScript framework used today.
- Used by big companies such as: Google, Digg, Netflix, CBS, Mozilla, etc.
Intro to jQuery

- Focuses on retrieving elements from HTML pages and perform operations on them.
- Use function $(element) to retrieve HTML elements
- Example 1: $( 'div#navbar').addClass('hidebar') will add class="hidebar" to the div with id="navbar". Will cause <div id="navbar" class="hidebar">
- Example 2: $.ajax({type: 'POST', url: 'get_suggestions.php', data: 'txt=hou', success: function(all_suggestions) { $( 'div#suggestions').html(all_suggestions) }; => Request a POST ajax request to server-side script get_suggestions.php with parameter 'hou' and assign the result to div with id="suggestions". 
Intro to jQuery...

- Example 3 – Basic show and hide
  
  `$('div.options,p').hide();` ➞ Hide the div and the p elements.
  
  `$('div.options,p').show()` ➞ Show the div and the p elements.

- `$(object).doThis().doThat().doAnother();` - jQuery is "chainable".
Learning JQuery

- http://docs.jquery.com/Tutorials
- http://www.learningjquery.com/
Yahoo! UI

- A set of utilities and controls (written w/ Javascript & CSS) to build richly interactive Web applications.
- Current version is YUI 3.
- YUI core is light ~ 31KB (minified)
- YUI Core: YAHOO global object, DOM collection, and Event utility.
- Many Utilities! Example: Animation, Browser History, Connection Manager, Cookie, DataSource, Drag and drop, Element, Get, ImageLoader, JSON, Resize, Selector, and YUI! Loader
- Many Controls – example: Slider, Calendar, etc.
Intro to YUI

- YUI module is the single core dependency for all YUI 3.x implementations. Must be included on all pages that use YUI.

- To use YUI global object, include the seed script `<script src="http://yui.yahooapis.com/3.0.0/build/yui/yui-min.js"></script>`

- To create YUI instance: `var y = YUI();`

- To choose modules that you need to be loaded into your YUI instance: `YUI.use('module1', 'module2',..,'moduleN', function(Y) { … });`
Examples of YUI

<div id="demo">Drag Me</div>

#demo { height: 100px; width: 100px; border: 1px solid black; background-color: #8DD5E7; cursor: move; }

• YUI().use('dd-drag', function(Y) {

  // Selector of the node to make draggable

  var dd = new Y.DD.Drag(

    node: '#demo'

  );

});

• This will instruct YUI instance to load the drag module, and instantiate Drag instance on #demo node. The #demo div is now draggable.
Examples of YUI...

- JSON module – transforming data to JSON format. JSON is a safe, efficient, and reliable data interchange format

- YUI().use('json-parse', function (Y) {
  var jsonString = '{"products":['
    '{"id":1,"price":0.99,"inStock":true,"name":"grapes"},'+
    '{"id":2,"price":3.5,"inStock":false,"name":"passion fruit"},'+
    '{"id":3,"price":2.5,"inStock":true,"name":"bananas"}'+
  ']}';
  try { var data = Y.JSON.parse(jsonString); } catch (e) { alert("Invalid product data"); }
});

- Note: Use JSON.parse instead of eval() as it is safer.
Examples of YUI...

- Event

```
#container {background-color:#00CCFF; border:1px dotted black; padding:1em; cursor:pointer;}

</style>

<div id="container"><p>Click for Hello World alert.</p></div>

var helloWorld = function(e) { alert("Hello World!"); }

Y.on("click", helloWorld, "#container");
```

- Code will register the onclick event for the div with id “container”. The onclick event will run the helloWorld function.

- Similar to: `<div id="container" onclick="alert('Hello World!');return false;"">Click for Hello world alert.</div>`
YUI (continued…)

• YUI 3 tutorials and demo:
  http://developer.yahoo.com/yui/3/