

User Interaction: jQuery

Asst. Professor Donald J. Patterson
INF 133 Fall 2010



- jQuery
 - A JavaScript Library
 - Cross-browser
 - Free (beer & speech)
 - It supports
 - manipulating HTML elements (DOM)
 - animations
 - event handling
 - AJAX

- Getting access to jQuery in our code
 - You can't just write JavaScript that calls jQuery
 - You must load it
 - From where?
 - From your own machine
 - <http://jquery.com/>
 - From someone else's machine
 - From Google
 - Why would you do this?
 - <http://code.google.com/apis/libraries/devguide.html>
 - Shortcut

- Loading jQuery is just like loading a remote JavaScript

```
<html>
  <head>
    <script type="text/javascript" src="Step5.js"></script>
  </head>

  <body onload="message()">
    Hello World!
  </body>
</html>
```

- Loading jQuery is just like loading a remote JavaScript

```
<html>
  <head>
    <script src="http://ajax.googleapis.com/ajax/libs/jquery/1.4/jquery.min.js"></script>
    <script src="http://ajax.googleapis.com/ajax/libs/jqueryui/1.8/jquery-ui.min.js"></script>
  </head>

  <body>
    
  </body>
</html>
```

- http://www.ics.uci.edu/~djp3/classes/2010_09_INF133/Assignments/Assignment02/Step6.html

- Loading jQuery is just like loading a remote JavaScript

```
<html>
  <head>
    <script src="http://ajax.googleapis.com/ajax/libs/jquery/1.4/jquery.min.js"></script>
    <script src="http://ajax.googleapis.com/ajax/libs/jqueryui/1.8/jquery-ui.min.js"></script>
    <script>
      $(document).ready(
        function() {
          $("img").click(
            function () {
              $(this).hide("blind", { direction: "horizontal" }, 5000);
            }
          );
        }
      );
    </script>
  </head>

  <body>
    
  </body>
</html>
```

- http://www.ics.uci.edu/~djp3/classes/2010_09_INF133/Assignments/Assignment02/Step7.html

- Loading jQuery is just like loading a remote JavaScript

```
<html>
  <head>
    <script src="http://ajax.googleapis.com/ajax/libs/jquery/1.4/jquery.min.js"></script>
    <script src="http://ajax.googleapis.com/ajax/libs/jqueryui/1.8/jquery-ui.min.js"></script>
    <script>
      $(document).ready(
        function() {
          $("img").click(
            function () {
              $(this).hide("explode", 5000);
            }
          );
        }
      );
    </script>
  </head>

  <body>
    
  </body>
</html>
```

- http://www.ics.uci.edu/~djp3/classes/2010_09_INF133/Assignments/Assignment02/Step8.html

- Assignment 2
 - Present the data as a table
 - http://www.w3schools.com/html/html_tables.asp
 - HTML tables overview
 - 3 primary tags
 - <table>
 - <tr>
 - <td>

- Basic table
 - <table>
 - <tr>
 - <td>

```
<html>
  <body>
    <table border="1">
      <tr>
        <td>
          1
        </td>
        <td>
          2
        </td>
      </tr>
      <tr>
        <td>
          3
        </td>
        <td>
          4
        </td>
      </tr>
    </table>
  </body>
</html>
```

- Assignment #2
 - Geocoded Feeds
 - http://api.flickr.com/services/feeds/geo/QDd_2PObCZ4ZsRM6Sw&format=json
 - jQuery
 - HTML Table
 - AJAX request

- With jQuery you HTML elements and perform actions on them
 - Basic syntax is: `$(selector).action()`
 - A dollar sign (\$) to define jQuery
 - A **selector** to "query (or find)" HTML elements
 - A jQuery **action** to apply to the element(s)

- `<p class="foo">words</p>`
- `<p id="bar">more words</p>`
- Examples:
 - `$("p").hide()`
 - `$(".foo").hide()`
 - `$("#p.foo").hide()`
 - `$(this).hide()`
 - `$("#bar").hide()`

```
<html>
  <head>
    <script src="http://ajax.googleapis.com/ajax/libs/jquery/1.4/jquery.min.js"></script>
    <script src="http://ajax.googleapis.com/ajax/libs/jqueryui/1.8/jquery-ui.min.js"></script>
    <script src="Step10.js"></script>
  </head>

  <body>
    <div class="dataHere">Replace this text!</div>
  </body>
</html>
```

```
{  
    "HELLO": "WORLD",  
    "This": "is",  
    "my": "data"  
}
```

```
function myGoodLoadFunction(data) {  
    $("div.dataHere").text(data.HELLO);  
}  
  
function myBadLoadFunction(XMLHttpRequest, errorMessage, errorThrown) {  
    alert("Load failed:" + errorMessage + ":" + errorThrown);  
}  
  
function myReadyFunction(){  
    $.ajax({  
        url: "http://www.ics.uci.edu/~djp3/classes/2010_09_INF133/Assignments/Assignment02/test.json",  
        dataType: "json",  
        success: myGoodLoadFunction,  
        error: myBadLoadFunction,  
    });  
}  
  
$(document).ready(  
    myReadyFunction  
);
```

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 - jQuery
 - HTML Table
 - AJAX request
 - Cross-site scripting
 - jsonP
 -


```
<html>
  <head>
    <script src="http://ajax.googleapis.com/ajax/libs/jquery/1.4/jquery.min.js"></script>
    <script src="http://ajax.googleapis.com/ajax/libs/jqueryui/1.8/jquery-ui.min.js"></script>
    <script src="Step11.js"></script>
  </head>

  <body>
    <div class="dataHere">Replace this text!</div>
    <div class="textHere">Don't replace this text!</div>
    <div class="textAlsoHere">Don't replace this text either</div>
  </body>
</html>
```



```
function escapeText(t){
    return document.createTextNode(t).textContent;
}

function jsonFlickrFeed(data) {
    myGoodLoadFunction(data);
}

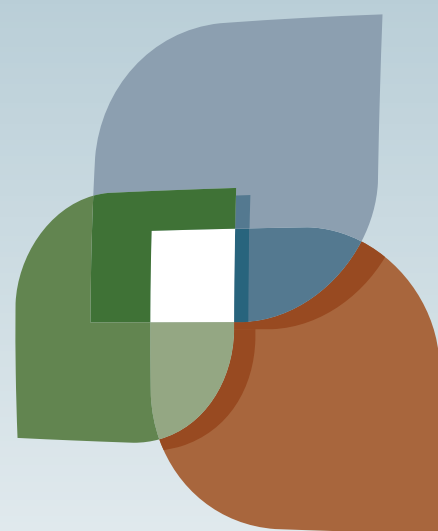
function myGoodLoadFunction(data) {
    $("div.dataHere").html(escapeText(data.title)+"<br/>");
    $("div.dataHere").append(escapeText(data.link)+"<br/>");
    $("div.dataHere").append(escapeText(data.items[0].link));
}

function myBadLoadFunction(XMLHttpRequest,errorMessage,errorThrown) {
    alert("Load failed:"+errorMessage+": "+errorThrown);
}

function myReadyFunction(){
    $.ajax({
        url: "http://api.flickr.com/services/feeds/geo/QDd_2P0bCZ4ZsRM6Sw&format=json",
        jsonp: "jsonFlickrFeed",
        dataType: "jsonp",
        success: myGoodLoadFunction,
        error: myBadLoadFunction,
    });
}

$(document).ready(
    myReadyFunction
);
```

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 - jQuery
 - HTML Table
 - AJAX request
 - Cross-site scripting
 - jsonP
 - What if you have an error?
 - JavaScript looping



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