

User Interaction: jQuery

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INF 133 Fall 2011



- 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/2011_09_INF133/Assignments/Assignment02/Step6.html

- With jQuery you select HTML elements in the DOM and perform actions on them
 - Basic syntax is: `$(selector).action()`
 - A dollar sign (\$) to define jQuery
 - `$(selector).action() = jQuery(selector).action()`
 - 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>
```

```
<p class="foo">even more words</p>
```

```
<img class="foo"/>
```

- Selection examples:
 - multiple results
 - `$("p").hide()`
 - `$(".foo").hide()`
 - `$("p.foo").hide()`
 - single result
 - `$("#bar").hide()`
 - context dependent
 - `$(this).hide()`

Possible Actions:

- **append** content to a DOM element
- **wrap** content around a DOM element
- **toggle** the display of a DOM element
- attach a function that is run when you **hover** over a DOM element
- you can request data via the **ajax** pattern

- 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/2011_09_INF133/Assignments/Assignment02/Step8.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>
    
    <br/>
    
  </body>
</html>
```

- http://www.ics.uci.edu/~djp3/classes/2011_09_INF133/Assignments/Assignment02/Step7_02.html



The screenshot shows the jQuery website homepage with a dark blue header and a light blue sidebar. The main content area is white. The header contains the jQuery logo and a navigation menu. The sidebar contains a list of logos for companies using jQuery. The main content area features a large heading, a paragraph, a list of features, a download section, and a 'Learn jQuery Now!' section with a code snippet and a 'Run Code' button. The footer contains a 'jQuery Resources' section with links to 'Getting Started With jQuery' and 'Developer Resources'.

jQuery
write less, do more.

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jQuery is a new kind of JavaScript Library.

jQuery is a fast and concise JavaScript Library that simplifies HTML document traversing, event handling, animating, and Ajax interactions for rapid web development. jQuery is designed to change the way that you write JavaScript.

- ✓ [Lightweight Footprint](#)
- ✓ [CSS3 Compliant](#)
- ✓ [Cross-browser](#)

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- ☒ PRODUCTION (31KB, Minified and Gzipped)
- ☐ DEVELOPMENT (229KB, Uncompressed Code)

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Current Release: **v1.6.4**

WHO'S USING JQUERY? Google DELL IBM NBC CBS NETFLIX Technorati mozilla.org

LEARN JQUERY NOW!

What does jQuery code look like? Here's the quick and dirty:

```
$("#p.neat").addClass("ohmy").show("slow");
```

RUN CODE

JQUERY RESOURCES

Getting Started With jQuery

- ◆ [How jQuery Works](#)
- ◆ [Tutorials](#)
- ◆ [Using jQuery with other libraries](#)
- ◆ [jQuery Documentation](#)

Developer Resources

- ◆ [Mailing List](#)
- ◆ [Source code / Git](#)
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What does jQuery code look like? Here's the quick and dirty:

```
$( "p.neat" ).addClass( "ohmy" ).show( "slow" );
```

RUN CODE

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The screenshot shows the jQuery website homepage with a dark blue header and a light blue footer. The header contains the jQuery logo and a navigation menu with links to jQuery, Plugins, UI, Meetups, Forum, Blog, About, and Donate. Below the header is a secondary navigation bar with links to Download, Documentation, Tutorials, Bug Tracker, and Discussion. The main content area features a large heading 'jQuery is a new kind of JavaScript Library.' followed by a paragraph describing the library. To the right, there is a section titled 'GRAB THE LATEST VERSION!' with a form to choose a compression level (Production or Development) and a large 'Download (jQuery);' button. Below the main content, there is a section 'WHO'S USING JQUERY?' with logos of various companies and a 'LEARN JQUERY NOW!' section with a code snippet and a 'RUN CODE' button. The footer contains a 'JQUERY RESOURCES' section with links to Getting Started With jQuery and Developer Resources.

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```
$("#p.neat").addClass("ohmy").show("slow");
```

RUN CODE

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- 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

```
<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/2011_09_INF133/Assignments/Assignment02/test.json",  
        dataType: "json",  
        success: myGoodLoadFunction,  
        error: myBadLoadFunction,  
    });  
}  
  
$(document).ready(  
    myReadyFunction  
);
```

- Assignment #2
 - Geocoded Feeds
 - http://api.flickr.com/services/feeds/geo/QDd_2PObCZ4ZsRM6Sw&format=json
 - 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;
}

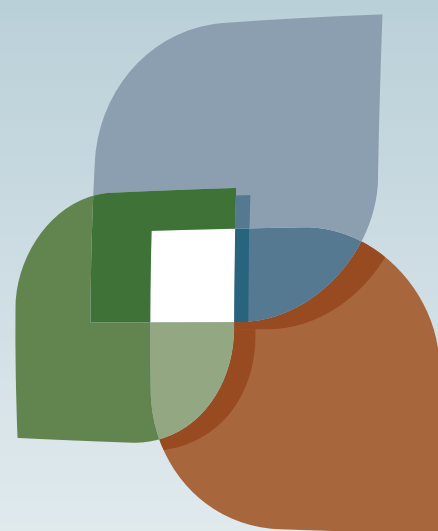
function jsonFlickrFeed(data) {
    myGoodLoadFunction(data);
}

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",
        error: myBadLoadFunction,
    });
}

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



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