

Unit 3 Module 4: jQuery

Dylan Lane McDonald

CNM STEMulus Center
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Introduction to jQuery

jQuery is a library written in pure JavaScript. It facilitates advanced features without the need to write your own functions to do so. Among jQuery's abilities are:

- Transitions & animations
- Advanced access to the DOM
- Access to JavaScript events
- AJAX¹
- Form validation

The real power of jQuery lies in its myriad of ready-made functions it gives the developer. This especially applies to its AJAX abilities.

¹Asynchronous JavaScript And XML

Using jQuery

jQuery has two release branches:

- jQuery 1.x: the standard version that supports all major browsers
- jQuery 2.x: the future development version that drops support for Internet Explorer 6, 7, and 8

Since Internet Explorer ≤ 8 is still widely deployed, the 1.x version is recommended.

To use it:

- 1 Download the latest version from <http://jquery.com/download/>
- 2 Put the following tag in your HTML document's head:

```
<script type="text/javascript"
src="jquery-1.x.y.min.js"></script>
```

where x.y is the version number you're using.

jQuery Selectors

Selector	Comment
<code>\$("*")</code>	All tags
<code>\$("#idName")</code>	Tag with <i>idName</i>
<code>\$("a")</code>	All <code><a></code> tags
<code>\$("a.className")</code>	All <code><a></code> tags with <i>className</i>
<code>\$a["href"]</code>	All <code><a></code> tags with the <code>href</code> attribute
<code>\$("a:even")</code>	All even numbered <code><a></code> tags
<code>\$("a:odd")</code>	All odd numbered <code><a></code> tags

Table 1: Example jQuery Selectors [1]

Table 1 is just a small subset of jQuery's selectors.

jQuery Events

jQuery has convenient mappings to common JavaScript events and can attach JavaScript functions to an event easily. The following example will hide the `<p>` element when the user clicks it.

```
$( "a" ).click( function () {  
    $( this ).hide();  
});
```

Listing 1: Hide the current `<a>` element

The most common element to attach an event to is `$(document).ready()`, which is the jQuery equivalent to JavaScript's `onLoad` event. [2]

jQuery DOM Traversing

jQuery has many functions to do advanced DOM traversal. Note that most of these functions return a set (array) of tags.

DOM Function	Comment
<code>\$("#targetId").parent()</code>	The parent of <i>targetId</i>
<code>\$("#targetId").parents()</code>	All ancestors of <i>targetId</i>
<code>\$("#targetId").siblings()</code>	All siblings of <i>targetId</i>
<code>\$("#targetId").children()</code>	All descendants of <i>targetId</i>

Table 2: jQuery DOM Traversal [3]

jQuery AJAX

AJAX (**A**synchronous **J**avaScript **A**nd **X**ML) is a powerful way to communicate with external data sources and include them dynamically in a web page. Arguably, this is jQuery's most powerful function.

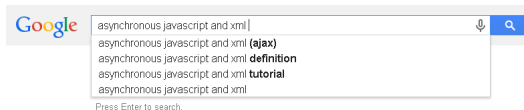


Figure 1: Autocomplete: AJAX's signature use

Figure 1 only scratches the surface of AJAX. AJAX can be used to connect to databases, external APIs, and other web sites to dynamically populate a web site.

Simple AJAX Example

```
$(document).ready(  
    function() {  
        $("button").click(  
            function() {  
                $("#output").load("ajax.txt");  
            });  
    });
```

Listing 2: Simple AJAX Example


Listing 2 will populate a tag with the ID *output* with the data from `ajax.txt`. The text file can act as a stand in for any external data. [4]

Works Cited

 jQuery Foundation.
Selectors.
<http://api.jquery.com/category/selectors/>.

 jQuery Foundation.
Events.
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 jQuery Foundation.
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