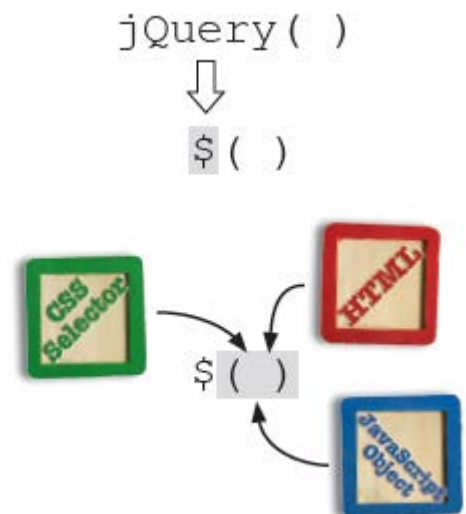# Introduction to jQuery
Instructor: Frank Stepanski

Overview

jQuery aims to change the way that web developers think about creating rich functionality in their pages. Rather than spending time juggling the complexities of advanced JavaScript, designers can leverage their existing knowledge of Cascading Style Sheets (CSS), Extensible Hypertext Markup Language (XHTML), and good old straightforward JavaScript to manipulate page elements directly, making more rapid development a reality.

Audience for this Class

This class is considered a beginner class and can be taken by either a web designer or web developer with no previous experience with jQuery.

For a **web designer**, good knowledge of XHTML and CSS is required. It would be very helpful if you have existing knowledge or experience of JavaScript. This class uses programming syntax and terminology so pre-existing knowledge of JavaScript or a programming language is required.

For a **web developer**, knowledge of programming language syntax and terminology is already assumed so no other experience would be necessary.
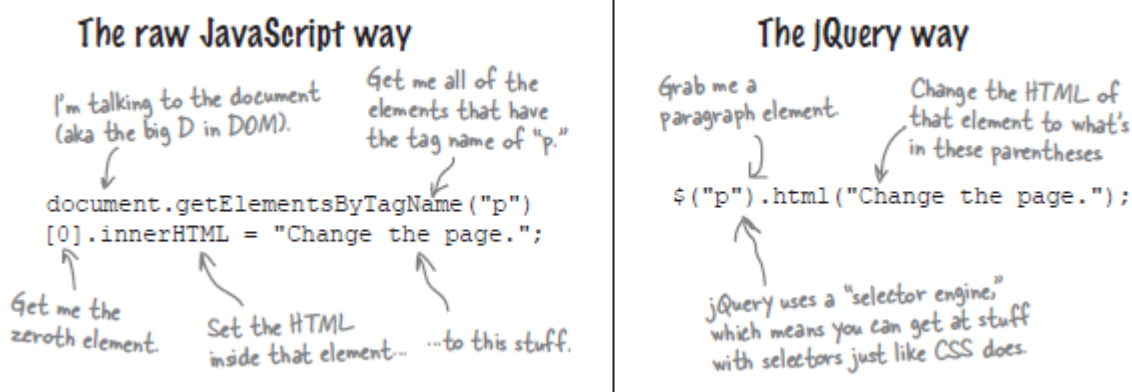
Tools Needed

There is no specific tool to develop in jQuery so you can use any free text or web editor like Notepad++ or HTML-Kit or Komodo Edit or commercial products like Adobe Dreamweaver.

Why jQuery?

If you've spent any time at all trying to add dynamic functionality to your pages (as well as figure out browser differences), you've found that you're constantly following a pattern of selecting an element or group of elements and operating upon those elements in some fashion. You could be hiding or revealing the elements, adding a CSS class to them, animating them, or modifying their attributes.

Using raw JavaScript can result in dozens of lines of code for each of these tasks. The creators of jQuery specifically created the library to make common tasks trivial.

The raw JavaScript way

I'm talking to the document (aka the big D in DOM).

Get me all of the elements that have the tag name of "p."

```
document.getElementsByTagName("p")
[0].innerHTML = "Change the page.";
```

Get me the zeroth element.

Set the HTML inside that element...

...to this stuff.

The jQuery way

Grab me a paragraph element.

Change the HTML of that element to what's in these parentheses

```
$("p").html("Change the page.");
```

jQuery uses a "selector engine," which means you can get at stuff with selectors just like CSS does.

So the basic concept of jQuery could be described as:

1. Creating something new
2. Selecting it
3. Then doing something with it.

About jQuery

It's one of the most popular JavaScript libraries around and was created by [John Resig](#) during his college days at the Rochester Institute of Technology. Its popularity has been helped by a number of high-profile sites using jQuery such as the BBC, Digg, Intel, MSNBC, and Technorati.

The core features of jQuery are:

- Gives developers a common set of functions for all browsers.
- Uses selectors which is an expression for identifying target elements on a page that allows us to easily identify and grab the elements we need
- Gives access to page elements without having to wait for all images to load in place of using the browser's onload event, which delays anything you do until the page is fully loaded.
- Let's you create and delete HTML.
- Has a great selection of animation and visual effect
- Contains enhancements to basic JavaScript constructs such as iteration and array manipulation.

The real power in this jQuery statement comes from the *selector*, an expression for Identifying target elements on a page that allows us to easily identify and grab the elements we need; in this case, even every <tr> element in all tables.
The jQuery library provides a general-purpose abstraction layer for common web scripting, and is therefore useful in almost every scripting situation. Its extensible nature means that we could never cover all possible uses and functions in a single book, as plugins are constantly being developed to add new abilities.

Downloading jQuery

jQuery is available in two versions: a packed version for use in production sites and an uncompressed version that is more readable (if you want to review the source).

http://docs.jquery.com/Downloading_jQuery

No installation is required, to use jQuery you just need to place it in a public location.

Since JavaScript is an interpreted language, there is no compilation or build phase to worry about. Whenever we need a page to have jQuery available, we will simply refer to the file's location from the HTML document.

Just include the file in the same location as your HTML page and you're ready to use jQuery.