

What is jQuery

Lesson Time: 20 Minutes

Write Less, Do More

For the rest of this course, we are going to look at tools we can use to make our lives as developers EASIER! Programming is tough enough as it is, as developers are always looking for tools that will make developing faster and easier. Our first optional tool is jQuery.

In a previous lesson, we mentioned that Javascript has a funny name--it doesn't have much to do with Java programming language, the marketing team at Sun thought it would be cool to just call it that.

The REAL name of Javascript is ECMAScript, or just ES. Think of Javascript as it's marketing name, and ECMAScript as it's "techie" name. In casual conversations, everyone calls it JS, but when we want to talk tech and version differences, you'll see people refer to ES5 and ES6. A lot of technology is like this--most stuff has a marketing name and a techie name.

Javascript ES5, also called ECMAScript 5.1 was released in 2011
Javascript ES6, also called ECMAScript 2015 was released in 2015.

Javascript ES6 is a big jump from ES5, and all modern browsers support ES6 features.

However, before we had ES6, developers came up with their own ways to making JS better.

Enter jQuery, a free and open-source library for Javascript.

What is a library?

A library is a collection of pre-written code that helps you perform a task. Library's can be free and open-source, or requirement payment for usage. Libraries are incredibly useful--there is a good chance someone has solved a problem and created a library for it. Why reinvent the wheel?

jQuery is a library for JS. It's meant to make JS easier to write and work with. jQuery is not as popular today as it was a few years ago. jQuery was incredibly popular with ES5, but ES6 made many improvements to JS and now we are seeing developers favor ES6 and/or TypeScript over jQuery.

We are including JQuery in this course because there is a large amount of legacy web applications that are using it, and there is just good possibility you'll see jQuery on the job.

How to install jQuery

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First, you need to download the jQuery library files from <https://jquery.com/download/> .

All you have to do is simply download the .js file from the site and include it in your scripts. You can choose to download the compressed or uncompressed .js file--either will work.

```
<html>
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<meta name="keywords" content="html, training, lessons, templates">
<meta lang="en-US">
<script src='jquery-3.4.1.js'></script>
```

In the <head> of your HTML, include a <script> tag that points to the jquery.js files. Now your page can use the jQuery library!

jQuery Syntax

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jQuery uses the following syntax:

```
$( HTML Element ).action(...);
```

Let's break this down:

1. jQuery syntax begins with a dollar sign
2. The HTML element being worked on is listed in (). Example (document) or (h1)
3. The jQuery action we want to perform comes next. For Example .click or .html
4. Any functions, arguments, variables that need to be passed in ().

The following two blocks of code do the same thing. One is written in basic JS and one with jQuery. Both remove an element with id myhtml from the web page.

JS

```
.. <h1 id='myhtml'>Hello </h1>
..
.. <script>
..   function JSRemoveElement(){
..     var element = document.getElementById("myhtml");
..     element.parentNode.removeChild(element);
..   }
```

jQuery

```
.. <h1 id='myhtml'>Hello </h1>
..
.. <script>
..   function jQueryRemoveElement(){
..     $("#myhtml").remove();
..   }
.. </script>
```

As you can see, we can do the same tasks with less code, and that is the benefit of using jQuery. Also, just reading the code, it's more clear that we are removing the element here.

In the past, other feature that made jQuery useful was its ability to select elements by CSS selectors. However, `document.querySelector()` is now standard in JS and allows for similar element selection using complex CSS selectors.

To recap;

- jQuery is a library for JS. It adds new syntax to JS.
- You don't have to use jQuery, you can just use JS if you want.
- jQuery saves time by making our code shorter, easier to write, and easier to read.
- jQuery is pretty easy to learn.
- jQuery is a good introduction to why we use libraries and frameworks--in order to "write less, do more".

The last thing we want to stress is that jQuery doesn't "replace" JS. jQuery doesn't even work without JS. jQuery just gives us the option of some very useful shortcuts and tricks we can easily use. Even if we use jQuery, we'll still be writing a lot of JS in a complex web scripting.

More examples of basic Syntax:

```
...<h1 id='myhtml'>Hello </h1>
...<p> Some Text. </p>
...<h2 class='someClass'>Heading 2 </h2>
...
✓<script>
✓function jQueryDoStuff(){
    ...$("#myhtml").remove(); //remove element with id myhtml from the document.
    ...$("p").html("changed by jQuery"); //change the innerHTML of all p elements to "changed by jQuery"
    ...$(".someClass").hide(); //hide the elements of the class someClass
    ...}
</script>
```

Key Terms	
Lesson Files	11_1jquerySyntax.html
Additional Resources	https://learn.jquery.com/
Further Learning	

