

JQUERY START GUIDE

This outline is a work-in-progress, and may change in the future – medatech@medasf.org

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JQUERY

jQuery is one of the most popular JavaScript libraries available for you to use. Many website make use of jQuery to allow further control of JavaScript over HTML and CSS code. jQuery was originally designed to speed up the development of websites by making code simpler to use. Their motto “write less, do more” still stands today as jQuery has a bunch of prepackaged functions that a developer can use instead of writing it all from scratch.

ATTACHING JQUERY ON YOUR WEBSITE

There are two main methods of attaching the jQuery library to your website so that you can start to use it. Both methods are fairly popular and will depend on the current website and traffic needs. For this course, we will be using the first method.

Downloading jQuery

- ➔ Go to <http://www.jquery.com/>
- ➔ Click on the **large orange button** that says “Download jQuery v3.5.1”.
- ➔ Click on the link that says “**Download the compressed, production jQuery 3.5.1**” link.
- ➔ Right click on this document and click “**Save as...**”, do not change the file name. This instruction applies to many modern browsers, if it does not, look under the File menu for a “Save File” or similarly named option.
- ➔ Move the downloaded file into your website folder.
- ➔ Open your HTML file(s) and write the following code in the head section. Generally libraries should be loaded first, meaning their code should appear first in the HTML document. Make sure this code is before others of the same type.

- `<script src="jQuery file name goes here"></script>`

Using A CDN for jQuery

- ➔ Go to <https://code.jquery.com/>
- ➔ Under the section jQuery Core, look for jQuery 3.x. Under that section click on the link “minified”.

- ➔ Copy the script code and place it inside of your head section of your HTML elements. Note again that libraries should be loaded first, therefore their code should appear before others of the same type.

The differences between these two methods of attaching jQuery to your website is based on whether you have network access. The CDN method needs network access to pull the file from the Internet (look at the `src` value to see where the file is coming from). If you plan on taking a trip to a deserted island with no Internet access, it's best that you download the files instead to keep on developing your websites! The CDN is generally preferred though since jQuery is so popular, the jQuery file is probably already cached on the visitor's computer because they have visited another website that uses the same jQuery version. For this class we will be using the download method for portability and archival purposes.

GETTING STARTED WITH JQUERY

jQuery can be started fairly quickly once you have it attached to your HTML web page. This section will introduce one function that is required for JavaScript code that uses jQuery, and we will also introduce three very common jQuery methods. jQuery has many methods available, and cannot be full covered in this document or this course! I recommend you check out the [official jQuery documentation](#).

Starting JavaScript Code That Uses jQuery

When a website is loaded, sometimes JavaScript will start working even though other parts of the web page has not finished downloading! To avoid a situation where jQuery starts working on HTML before its even downloaded, we tell JavaScript to “wait” until the HTML is fully loaded.

```
$(document).ready(function () {  
    All your jQuery code goes here!  
});
```

This piece of code will wait until the HTML document (or DOM) is fully loaded before running the jQuery code inside of the curly braces.

Notice that there is an entire function definition inside of the parenthesis for the `ready()` function! This is called a callback function (just like the phone call service). What this means is that we are giving the definition of a function to that `ready()` function and it will decide when to run it. Most of jQuery works this way by providing callback functions to other functions.

Targeting HTML Elements Through jQuery

Targeting (or selecting) HTML elements is extremely simplified in jQuery and it is one of the biggest reasons why jQuery is easier to use than JavaScript built-in DOM methods. Simply put, the way you select HTML in jQuery is similar to CSS Selectors.

```
$(“h1”);
```

This jQuery selector will select all H1 HTML elements.

```
$(“#specialClass”);
```

This jQuery selector will look for an HTML element with the ID of specialClass.

Anything you use to select elements in CSS can also be used in jQuery's selectors.

Common jQuery Methods

By using the following, you can have a lot of control of your HTML and CSS elements right off the bat!

```
$(“div”).html(“<p>Hello!</p>”);
```

This is the HTML jQuery method. It allows you to put html code inside of other HTML elements. In this example we are putting a paragraph element inside of all div elements. When using the HTML jQuery method, it will replace the existing contents of the selected HTML element! Also notice how these values are in quotes, they are strings in JavaScript. Check out related jQuery Methods on the jQuery documentation: `.text()`, `.prepend()`, and `.append()`

```
$(“p”).css(“color”, “red”);
```

This is the CSS jQuery method. This allows you to modify the CSS of HTML elements. In this case, we are selecting all the paragraph elements and we are assigning the color red for the *color* property of these paragraphs. Check out the jQuery documentation on how to apply multiple CSS properties at the same time.

```
$("#specialButton").click( function () {  
    code that runs when you click on the element with the ID  
    specialButton  
});
```

The click method is a very popular jQuery method because it allows an element to do things, in this case when it is pressed, it will run the function definition provided as a callback function. It will run one time per click! If there is a lot of code inside this callback function, jQuery can lag if the element is clicked on repeatedly, this is unfortunately the slow nature of the JavaScript language. There is similar method for keyboard presses but it is a little more complex than the click method. I recommend you check out the [example on the official jQuery documentation](#).

NOTES
