jQuery - Intro

## What is jQuery?

jQuery is a “write less, do more” Javascript library (and Javascript is used to make your website interactive).

**Recap:** A library is an implementation of an API; it is a set of functions that a developer can call, usually organised into classes. It contains the compiled code that implements the functions and protocols (maintains usage state).

jQuery will run in most browsers the same (and you don’t need to worry about the DOM like with Javascript…)

**Reminder:** DOM = *Document Object Model.* The DOM defines a standard for accessing HTML and XML documents: "The W3C Document Object Model (DOM) is a platform and language-neutral interface that allows programs and scripts to dynamically access and update the content, structure, and style of a document."

## How do I use it?

You can either:

* download the latest version from [www.jquery.com](http://www.jquery.com) and link to the file in the head of your website
* use a CDN (a link to a website with a version of jQuery ready to download), again linked in the head of your website

Both options have pros and cons, mainly adding a file requires more storage space for your website and you will have to keep the file up to date. However, using a CDN means you will have a faster load time for your website, but you are relying on another website to always be working.

Reminder- linking in the head of your website:

Downloaded file

<head>

<script src="jquery-3.1.1.min.js"></script>

</head>

Google CDN

<head>

<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.1.1/jquery.min.js"></script>

</head>

Note - we don’t have to include **type=text/javascript** as Javascript is the default scripting language for HTML5 in all modern browsers.

## jQuery - Syntax

jQuery is ready made to **select** HTML elements and then perform some sort of **action** on them. The simple syntax is:

$(**selector**).**action**()

* The $ indicates that it is jQuery you are using (you don’t use $ in HTML or CSS)
* The selector is the HTML tag/element you want to find or select (e.g. h1 or a class name). Note jQuery uses the same notation as CSS selectors (see the examples)
* The action is some jQuery action you want to perform (e.g. hide, show, fade)

E.g

* $(“p”).hide() - this hides all the p elements in your website
* $(“.hello”).fade() - this fades the class called “hello” (use #name for ids)
* $(this).show() - this shows the current element

**Document Ready**

Good practice is to put any jQuery inside a Document Ready command like this:

$(document).ready(function(){

*// jQuery methods go here...*

});

This is useful because it loads the rest of the website first (which means your user won’t be left waiting for your lengthy scripts to load with half loaded text and images, or trying to hide an element that isn’t loaded yet).

The lovely jQuery people have even made a shorter way to do this, using the syntax below:

$(function(){

*// jQuery methods go here...*

});

You can use whichever you prefer, but W3C think the document ready one is easier to understand when someone is reading your code.

## jQuery Events

An event is a visitor’s actions on your website. With jQuery (and Javascript) you can make the website responsive to these events (for a decent list of events, see the cheatsheet below). For example, you can make an element do something (like hide or show) when it is clicked. See the code below for an idea of how to do this:

$("p").click(function(){

// action goes here!!

});

Here’s another example, using double-click this time:

$("p").dblclick(function(){

$(this).hide();

});

Using another method on() you can have one or more events for an element:

$("p").on({

mouseenter: function(){

$(this).css("background-color", "lightgray");

},

mouseleave: function(){

$(this).css("background-color", "lightblue");

},

click: function(){

$(this).css("background-color", "yellow");

}

});

## Adding jQuery to your Website

There are two ways to do this.

1. Have multiple script tags through your HTML code
2. Have a separate .js file linked in the head of your website

Both these methods are covered in the course notes for session 6!

## An Exercise

I made this up today, so bear with me if there’s any mistakes.

1. Download the files from this website my Github repo: <https://github.com/lauralikespi/jQueryFun>
2. Open the index.html file and follow the instructions
3. Try and follow all the best practices we have discussed over the weeks
4. My solution is in the folder, use it if you need to but try and do it yourselves.
5. There are multiple ways you could create this website, so there is no one correct answer

## Extra Resource

**jQuery Cheatsheet**

As you know, I love a good cheatsheet. Here’s my favourite jQuery one, it has good sections on different selectors, actions and events:

<https://oscarotero.com/jquery/>

**Extra tips and tricks:**

<http://www.w3schools.com/jquery/default.asp>

<http://sixrevisions.com/javascript/10-easy-jquery-tricks-for-designers/>

<http://tutorialzine.com/2011/06/15-powerful-jquery-tips-and-tricks-for-developers/>

<http://www.creativebloq.com/jquery/top-jquery-plugins-6133175>