# The City Lit Institute

##### Department of Computing

## Keeley Street, Holborn, London WC2B 4BA

**jQuery**

(The JavaScript Library)

**LECTURER**: **ALEXANDER ADU- SARKODIE**

MSc. Telematics (IT & Telecom), MSc. Eng., Dip. Russ. Lang., Teach. Cert, AMIAEng (UK), MBCS (UK), MIfL(UK)

**Biopic:** [**http://www.goldhawk-college.com/istudio/**](http://www.goldhawk-college.com/istudio/)

**Blog:** [**http://www.blogger.com/profile/14800490193632788559**](http://www.blogger.com/profile/14800490193632788559)

**jQuery**

**jQuery** is an open source multi-browser JavaScript library, allowing you to **write less and do more.** It is designed to simplify client side scripting of HTML. It was released in January 2006 by **John Resig.**

jQuery is a fast and concise lightweight JavaScript Library with functions that simplifies HTML **document traversing**, **event handling**, **animating**, and **Ajax** interactions for rapid web development (RAD).

The jQuery library can be added to a web page with a **single line of markup**. Itis **free, open source software**.

The library has the following properties:

* About 31 kb size (Minified and Gzipped)
* Supports CSS1-3 Selectors
* Cross browser compatible :
* IE6.0+, FF 3.6+, Safari 5.0+, Opera and Chrome

Before you start studying jQuery, you should have a basic knowledge of:

* HTML
* CSS
* JavaScript

jQuery is licensed under the MIT Licence. It's syntax is designed to make it easier to navigate a document, select **DOM** elements, create **animations** , handle **events** , and **develop Ajax** applications . jQuery also provides capabilities for developers to create plug-ins on top of the JavaScript library.

The library contains the following features:

* HTML element selections
* HTML element manipulation
* CSS manipulation
* HTML event functions
* JavaScript Effects and animations
* HTML DOM traversal and modification
* AJAX
* Utilities

**jQuery Syntax**

The jQuery syntax is tailor made for selecting HTML elements and

perform some action on the element(s).

Basic syntax is: $(selector).action()

**Adding the jQuery Library to Your Pages**

The jQuery library is stored as a single JavaScript file, containing all the jQuery methods.

It can be added to a web page with the following mark-up:

< head>  
 < script type="text/javascript" src="jquery.js"></script>  
< /head>

**Snippets**

<html>

<head>

<script type="text/javascript" src="jquery.js"></script>

<script type="text/javascript">

$(document).ready(function(){

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

$(this).hide();

});

});

</script>

</head>

<body>

<p>If you click on me, I will disappear.</p>

</body>

</html>

**document.ready() :**

This is to prevent any jQuery code from running before the document is finished

loading (is ready).

Here are some examples of actions that **can fail** if functions are run before the

document is fully loaded:

•Trying to hide an element that doesn't exist

•Trying to get the size of an image that is not loaded

**Alternatives to Downloading**

If you don't want to store the jQuery library on your own computer, you can use the hosted jQuery library from **Google** or **Microsoft**.

This is a good option for **future proofing** the library and **easing maintenance**. Once they get updated by Google or Microsoft, it will **update automatically** your page. Also, you can take advantage of new **features and functionalities that they innovate**. They act as **CDN** (Content Delivery Network).

**Google**

<head>  
 <script type="text/javascript" src="http://ajax.googleapis.com/ajax/libs/jquery/1.4.2/jquery.min.js"></script>  
</head>

**Microsoft**

<head>  
 <script type="text/javascript" src="http://ajax.microsoft.com/ajax/jquery/jquery-1.4.2.min.js"></script>  
</head>

**jQuery Element Selectors**

jQuery uses **CSS selectors** to select HTML elements. Note the selectors in this case are strings.

$("p") **selects all <p> elements.**

$("p.intro") **selects all <p> elements with class="intro".**

$("p#demo") **selects <p> element with id="demo".**

**jQuery CSS Selectors**

jQuery CSS selectors can be used to change CSS properties for HTML elements.

The following example changes the background-color of all p elements to yellow:

Example

<html>

<head>

<script type="text/javascript" src="jquery.js"></script>

<script type="text/javascript">

$(document).ready(function(){

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

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

});

});

</script>

</head>

<body>

<h2>This is a heading</h2>

<p>This is a paragraph.</p>

<p>This is another paragraph.</p>

<button>Click me</button>

</body>

</html>

**Basic jQuery Example**

The following example demonstrates the jQuery hide() method, hiding all <p> elements in an HTML document.

Example 1

< html>  
< head>  
< script type="text/javascript" src="jquery.js"></script>  
< script type="text/javascript">  
 $(document).ready(function(){  
 $("button").click(function(){  
 $("p").hide();  
 });  
 });  
< /script>  
< /head>  
  
<body>  
 <p>This is a paragraph.</p>  
 <p>This is another paragraph.</p>  
 <button>Click me</button>  
</body>  
</html>

**jQuery Syntax**

The jQuery syntax is tailor made for **selecting** HTML elements and performing some **action** on the element(s).

Basic syntax is: **$(selector).action()**

* A dollar sign
* to define jQuery
* A (selector) to "query (or find)" HTML elements
* A jQuery action() to be performed on the element(s)

Examples:

$(this).hide() - hides current element

$("p").hide() - hides all paragraphs

$("p.test").hide() - hides all paragraphs with class="test"

$("#test").hide() - **hides the element with id="test"**