

# Part 4 – Comparison of JavaScript and JQuery

## Introduction

This brief essay aims to compare (at a high level) the key features that make up Javascript, the key features that make up JQuery, a brief bit of history of the two (as it's directly related to as why one would use one over the other). Real world and hypothetical comparisons will then be shown to help one realise the merits of JQuery vs traditional Javascript coding.

## Intro to Javascript

A programming language originally created at the tail end of 1995 it is described in its announcement press release by Netscape that Javascript is “*an open, cross-platform object scripting language for the creation and customization of applications on enterprise networks and the Internet*”. <http://wp.netscape.com/newsref/pr/newsrelease67.html>

Although originally designed with the aim of improving user interaction with an interface within a web browser Javascript has evolved over the years and can now be used to create highly enriched complex applications that are embedded within the browser. Some examples of these enriched applications include services like Google Maps, Google Doc/Sheets and Draw.io.

## Intro to JQuery

Designed as a open source framework built on top of Javascript in order to speed up development and improve quality. Prior to its creation a variety of other open and closed source libraries existed - each one designed with a specific purpose in mind. JQuery is really a holistic, slimmed down, more logical and simpler scripting language than pure Javascript and is now just one of a few well known JS frameworks.

## Why Javascript

Versatility - being able to create web applications, server side applications, computer games and many other differing types of fundamentally different application.

Javascript originally worked primarily by interacting with the page Document Object Model (DOM), either from executing pre programmed steps or by taking user interactions to update and change the display or behaviour of a particular web page. It's important to note that Javascript was originally founded as a 'Client Side' scripting language - meaning that it is the user's web browser that runs the code and thus absorbs any overheads in processing power. Its this association with the web browser that makes Javascript one of the most popular programming languages in the world.

While originally released in 1995, 'Server side' Javascript has become widely adopted across the industry. This allows developers the flexibility and libraries available to the Javascript language but within the environment of the Operating System rather than through the application layer e.g Web Browser.

## Why JQuery

Jquery exists as an optimised 're-think' of traditional Javascript which aims to reduce complexity and numbers of lines of code having to be written by developers. It has also been aimed at reducing the pains that come from cross browser development that had plagued Javascript up to that point (pains caused from the different web standards DOM models used by different web browsers).

## Conclusion & Side by side real world examples:

As you can see from this brief essay, JQuery was written to essentially speed up development and improve the quality of code and thus making the lives of the developer easier and thus gain a more efficient use of time. Some real world examples are explained below:

- Completed coursework questions, note that the amount of custom scripting for Question 1 had been reduced from around 130 lines of code down to only 6 (with the inclusion of a couple of library files) and all functionality has been preserved.
- Example code for background colour change:

Javascript example:

```
Function changeBackground(color) {  
    Document.body.style.background = color;  
}  
Onload="changeBackground ('red');"
```

Jquery example:

```
$ ('body') .css ('background', '#ccc');
```

Example taken from <https://blog.udemy.com/jquery-vs-javascript/>

## Bibliography:

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- **JavaScript: The Good Parts: The Good Parts** By Douglas Crockford. ISBN: 978-0596517748
- **JavaScript Bible** By Danny Goodman 7th Edition. ISBN: 978-0-470-52691-0
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