**Introduction**

jQuery is a fast, lightweight, and feature-rich open source JavaScript library that is based on the principle "write less, do more".

jQuery was originally created by John Resig in early 2006.

The jQuery project is currently run and maintained by a distributed group of developers as an open-source project.

## What we can do with jQuery?

There are lot more things you can do with jQuery.

* Select elements to perform manipulation.
* Create effect like show or hide elements, sliding transition, and so on.
* Create complex CSS animation with fewer lines of code.
* Manipulate DOM elements and their attributes.
* Implement Ajax to enable asynchronous data exchange between client and server.
* Traverse all around the DOM tree to locate any element.
* Perform multiple actions on an element with a single line of code.
* get or set dimensions of the HTML elements.

## Advantages of using jQuery

* **Save lots of time: y**ou can save lots of time and efforts by using the jQuery inbuilt effects and selectors and concentrate on other development work.
* **Simplify common JavaScript tasks** — jQuery considerably simplifies the common JavaScript tasks. Now you can easily create feature rich and interactive web pages with fewer lines of codes, a typical example is implementing Ajax to update the content of a page without refreshing it.
* **Easy to use** — jQuery is very easy to use. Anybody with the basic working knowledge of HTML, CSS and JavaScript can start development with jQuery.
* **Compatible with browsers** — jQuery is created with modern browsers in mind and it is compatible with all major modern browsers such as Chrome, Firefox, Safari, Internet Explorer, etc.
* **Absolutely Free** — And the best part is, it is completely free to download and use.

**Disadvantages:**

* While JQuery has an impressive library in terms of quantity, depending on how much customization you require on your website, the functionality may be limited thus using raw javascript may be inevitable in some cases.
* The JQuery javascript file is required to run JQuery commands, while the size of this file is relatively small (25-100KB depending on the server), it is still a strain on the client computer and maybe your web server as well if you intend to host the JQuery script on your own web server.

**Note:** All jQuery methods are inside a document-ready event to prevent any jQuery code from running before the document is finished loading (is ready).

jQuery Syntax

It is used for selecting elements in HTML and performing the action on those elements.

**Syntax:**

$(selector).action()

**$ sign:**It grants access to jQuery.

**(selector):**It is used to find HTML elements.

**jQuery action():**It is used to perform actions on the elements.

How to install jQuery

1. Create a folder in any drive in our computer Example jquery in c drive

2. Go to command prompt

3. Go to the folder c:\jquery and run the command

npm install [jquery@3.6.0](mailto:jquery@3.6.0)

**Document Ready Event:**

**jQuery Methods are inside a Document ready event for easy reading of code.**

$(document).ready(function(){

// jQuery Method

});

This is to check and stop the jquery before the document is finished loading. This method also allows you to have JavaScript code before the body of your document, in the head section.

**Some actions that can fail if the method is run before the loaded document:**  
Get the image size which is not loaded or hide element which is not created yet.

**The shorter method for document ready:**

$(function(){

// jQuery Method

});

How jQuery Works

* First download jQuery
* Cope this file into the project Folder
* Include this file in your application.

How to change the colour of the text?

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta http-equiv="X-UA-Compatible" content="IE=edge">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Document</title>

<script <script src="jquery-3.3.1.js"></script>

<script>

$(document).ready(function() {

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

$("p").css("color", "red");

});

});

</script>

<button>

Change the color of the text to Red

</button>

</head>

<body>

<p>Dipak Kumar Maiti</p>

</body>

</html>