## **What is jQuery**

jQuery is a fast, small, cross-platform and feature-rich JavaScript library. It is designed to simplify the client-side scripting of HTML. It makes things like HTML document traversal and manipulation, animation, event handling, and AJAX very simple with an easy-to-use API that works on a lot of different type of browsers.

The main purpose of jQuery is to provide an easy way to use JavaScript on your website to make it more interactive and attractive. It is also used to add animation.

## **What is jQuery**

jQuery is a small, light-weight and fast JavaScript library. It is cross-platform and supports different types of browsers. It is also referred as ?write less do more? because it takes a lot of common tasks that requires many lines of JavaScript code to accomplish, and binds them into methods that can be called with a single line of code whenever needed. It is also very useful to simplify a lot of the complicated things from JavaScript, like AJAX calls and DOM manipulation.

* jQuery is a small, fast and lightweight JavaScript library.
* jQuery is platform-independent.
* jQuery means "write less do more".
* jQuery simplifies AJAX call and DOM manipulation.

## **jQuery Features**

Following are the important features of jQuery.

* HTML manipulation
* DOM manipulation
* DOM element selection
* CSS manipulation
* Effects and Animations
* Utilities
* AJAX
* HTML event methods
* JSON Parsing
* Extensibility through plug-ins

## **Why jQuery is required**

Sometimes, a question can arise that what is the need of jQuery or what difference it makes on bringing jQuery instead of AJAX/ JavaScript? If jQuery is the replacement of AJAX and JavaScript? For all these questions, you can state the following answers.

* It is very fast and extensible.
* It facilitates the users to write UI related function codes in minimum possible lines.
* It improves the performance of an application.
* Browser's compatible web applications can be developed.
* It uses mostly new features of new browsers.

So, you can say that out of the lot of JavaScript frameworks, jQuery is the most popular and the most extendable. Many of the biggest companies on the web use jQuery.

Some of these companies are:

* Microsoft
* Google
* IBM
* Netflix

# jQuery History

jQuery was first released in January 2006 by **John Resig** at BarCamp NYC. It is currently headed by Timmy Wilson and maintained by a team of developers.

Nowadays, jQuery is widely used technology. Most of the websites are using jQuery.

# jQuery Example

jQuery is developed by Google. To create the first jQuery example, you need to use JavaScript file for jQuery. You can download the jQuery file from jquery.com or use the absolute URL of jQuery file.

In this jQuery example, we are using the absolute URL of jQuery file

<!DOCTYPE html**>**

**<html>**

**<head>**

**<title>**First jQuery Example**</title>**

**<script** type="text/javascript" src="http://ajax.googleapis.com/ajax/libs/jquery/2.1.3/jquery.min.js"**>**

**</script>**

**<script** type="text/javascript" language="javascript"**>**

 $(document).ready(function() {

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

 });

**</script>**

**</head>**

**<body>**

**<p>**The first paragraph is selected.**</p>**

**<p>**The second paragraph is selected.**</p>**

**<p>**The third paragraph is selected.**</p>**

**</body>**

**</html>**

## **$(document).ready() and $()**

The code inserted between $(document).ready() is executed only once when page is ready for JavaScript code to execute.

In place of $(document).ready(), you can use shorthand notation $() only.

$(document).ready(function() {

$("p").css("color", "red");

});

The above code is equivalent to this code.

$(function() {

$("p").css("color", "red");

});

<!DOCTYPE html**>**

**<html>**

**<head>**

**<title>**Second jQuery Example**</title>**

**<script** type="text/javascript" src="http://ajax.googleapis.com/ajax/libs/jquery/2.1.3/jquery.min.js"**>**

**</script>**

**<script** type="text/javascript" language="javascript"**>**

 $(function() {

 $("p").css("color", "red");

 });

**</script>**

**</head>**

**<body>**

**<p>**The first paragraph is selected.**</p>**

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**</body>**

**</html>**

jQuery Example

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In this jQuery example, we are using the absolute URL of jQuery file. The jQuery example is written inside the script tag.

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**<html>**

**<head>**

**<title>**First jQuery Example**</title>**

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**</script>**

**<script** type="text/javascript" language="javascript"**>**

 $(document).ready(function() {

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

 });

**</script>**

**</head>**

**<body>**

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**<html>**

**<head>**

**<title>**Second jQuery Example**</title>**

**<script** type="text/javascript" src="http://ajax.googleapis.com/ajax/libs/jquery/2.1.3/jquery.min.js"**>**

**</script>**

**<script** type="text/javascript" language="javascript"**>**

 $(function() {

 $("p").css("color", "red");

 });

**</script>**

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## **function() { $("p").css("background-color", "cyan"); }**

It changes the background-color of all <p> tag or paragraph to cyan.

# jQuery Selectors

jQuery Selectors are used to select and manipulate HTML elements. They are very important part of jQuery library.

With jQuery selectors, you can find or select HTML elements based on their id, classes, attributes, types and much more from a DOM.

In simple words, you can say that selectors are used to select one or more HTML elements using jQuery and once the element is selected then you can perform various operation on that.

All jQuery selectors start with a dollor sign and parenthesis e.g. $(). It is known as the factory function.

## **The $() factory function**

Every jQuery selector start with thiis sign $(). This sign is known as the factory function. It uses the three basic building blocks while selecting an element in a given document.

|  |  |  |
| --- | --- | --- |
| **S.No.** | **Selector** | **Description** |
| 1) | Tag Name: | It represents a tag name available in the DOM. For example: $('p') selects all paragraphs'p'in the document. |
| 2) | Tag ID: | It represents a tag available with a specific ID in the DOM. For example: $('#real-id') selects a specific element in the  document that has an ID of real-id. |
| 3) | Tag Class: | It represents a tag available with a specific class in the DOM. For example: $('real-class') selects all elements in the  document that have a class of real-class. |

<!DOCTYPE html>

<html>

<head>

 <title>First jQuery Example</title>

<script type="text/javascript" src="http://ajax.googleapis.com/ajax/libs/jquery/2.1.3/jquery.min.js">

 </script>

 <script type="text/javascript" language="javascript">

 $(document).ready(function() {

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

 });

 </script>

 </head>

<body>

<p>This is first paragraph.</p>

<p>This is second paragraph.</p>

<p>This is third paragraph.</p>

</body>

</html>

## **How to use Selectors**

The jQuery selectors can be used single or with the combination of other selectors. They are required at every steps while using jQuery. They are used to select the exact element that you want from your HTML document.

|  |  |  |
| --- | --- | --- |
| **S.No.** | **Selector** | **Description** |
| 1) | Name: | It selects all elements that match with the given element name. |
| 2) | #ID: | It selects a single element that matches with the given id. |
| 3) | .Class: | It selects all elements that matches with the given class. |
| 4) | Universal(\*) | It selects all elements available in a DOM. |
| 5) | Multiple Elements A,B,C | It selects the combined results of all the  specified selectors A,B and C. |