

What is jQuery?

jQuery is a fast and concise JavaScript Library created by John Resig in 2006 with a nice motto – **Write less, do more.**

jQuery simplifies HTML document traversing, event handling, animating, and Ajax interactions for rapid web development.

jQuery is a JavaScript toolkit designed to simplify various tasks by writing less code. Here is the list of important core features supported by jQuery –

- **DOM manipulation** – The jQuery made it easy to select DOM elements, traverse them and modifying their content by using cross-browser open source selector engine called **Sizzle**.
- **Event handling** – The jQuery offers an elegant way to capture a wide variety of events, such as a user clicking on a link, without the need to clutter the HTML code itself with event handlers.
- **AJAX Support** – The jQuery helps you a lot to develop a responsive and feature-rich site using AJAX technology.
- **Animations** – The jQuery comes with plenty of built-in animation effects which you can use in your websites.
- **Lightweight** – The jQuery is very lightweight library - about 19KB in size (Minified and gzipped).
- **Cross Browser Support** – The jQuery has cross-browser support, and works well in IE 6.0+, FF 2.0+, Safari 3.0+, Chrome and Opera 9.0+
- **Latest Technology** – The jQuery supports CSS3 selectors and basic XPath syntax.

```
<html>

<head>
  <title>The jQuery Example</title>
  <script type = "text/javascript" src = "/jquery/jquery-2.1.3.min.js"></script>

  <script type = "text/javascript">
    $(document).ready(function(){
      document.write("Hello, World!");
    });
  </script>
</head>

<body>
  <h1>Hello</h1>
</body>

</html>
```

Selectors

The jQuery library harnesses the power of Cascading Style Sheets (CSS) selectors to let us quickly and easily access elements or groups of elements in the Document Object Model (DOM).

A jQuery Selector is a function which makes use of expressions to find out matching elements from a DOM based on the given criteria. Simply you can say, selectors are used to select one or more HTML elements using jQuery. Once an element is selected then we can perform various operations on that selected element.

The \$() factory function

jQuery selectors start with the dollar sign and parentheses – \$(). The factory function \$() makes use of following three building blocks while selecting elements in a given document –

```
<html>

<head>
  <title>The 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", "yellow");
    });
  </script>
</head>

<body>
  <div>
    <p class = "myclass">This is a paragraph.</p>
    <p id = "myid">This is second paragraph.</p>
    <p>This is third paragraph.</p>
  </div>
</body>

</html>
```

Attributes

Some of the most basic components we can manipulate when it comes to DOM elements are the properties and attributes assigned to those elements.

Most of these attributes are available through JavaScript as DOM node properties. Some of the more common properties are –

- className
- tagName
- id
- href
- title
- rel
- src

```
<img id = "imageid" src = "image.gif" alt = "Image" class = "myclass" title = "This is an image"/>
```

Get Attribute Value

The attr() method can be used to either fetch the value of an attribute from the first element in the matched set or set attribute values onto all matched elements.

```

<html>

<head>
  <title>The 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() {
      var title = $("em").attr("title");
      $("#divid").text(title);
    });
  </script>
</head>

<body>
  <div>
    <em title = "Bold and Brave">This is first paragraph.</em>
    <p id = "myid">This is second paragraph.</p>
    <div id = "divid"></div>
  </div>
</body>

</html>

```

Events Handling

We have the ability to create dynamic web pages by using events. Events are actions that can be detected by your Web Application.

Following are the examples events –

- A mouse click
- A web page loading
- Taking mouse over an element
- Submitting an HTML form
- A keystroke on your keyboard
- etc.

Binding event handlers

Using the jQuery Event Model, we can establish event handlers on DOM elements with the bind() method as follows –

```

<html>

<head>
  <title>The 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() {
      $('div').bind('click', function( event ){
        alert('Hi there!');
      });
    });
  </script>
</head>

<body>
  <div>
    <em title = "Bold and Brave">This is first paragraph.</em>
    <p id = "myid">This is second paragraph.</p>
    <div id = "divid"></div>
  </div>
</body>

</html>

```

```
});
</script>

<style>
  .div{ margin:10px;padding:12px; border:2px solid #666; width:60px;}
</style>
</head>

<body>

<p>Click on any square below to see the result:</p>

<div class = "div" style = "background-color:blue;">ONE</div>
<div class = "div" style = "background-color:green;">TWO</div>
<div class = "div" style = "background-color:red;">THREE</div>

</body>

</html>
```