

## Unit 4

### 1.8 Introduction to **JQuery** Library

# ➤ 1.0 Client Side Application Development

HTML, XHTML, CSS, Document Object Model(DOM), JavaScript , DHTML, Ajax, jQuery & XML

## 1.8 JQuery Library

### 1.8.1 Introduction

jQuery is a fast and concise JavaScript Library that simplifies HTML document traversing, event handling, animating, and Ajax interactions for rapid web development. It is in other words a JavaScript toolkit designed to simplify various tasks by writing less code.

### 1.8.2 Core Features

A list of important core features supported by jQuery is given below.

- **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+

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## 1.8.3 JQuery Installation

JQuery installation is a relatively very simple 2 step process. Here are the steps.

1. Go to the [download page](#) to select the latest version available.
2. Place the downloaded **jquery-1.11.1.min.js** file in a directory of your web development environment (Visual Studio). e.g. /jquery.  
\*\* min = minified

Note that jQuery does not require any special installation and is very similar to JavaScript, we do not need any compilation or build phase to use jQuery.

## 1.8.4 How to use jQuery library?

Now you can include jQuery library in your HTML file as follows:

```
<html>
<head>
<title>The jQuery Example</title>
  <script type="text/javascript"
    src="/jquery/jquery-1.11.1.min.js"></script>
  <script type="text/javascript">
    // you can add our javascript code here
  </script>
</head>
<body>
  .....
</body>
</html>
```

Example 1.71

The above is just a skeleton showing how JQuery library could be used. As you can see, to use the functions in the JQuery library all you have to do is to 'import' the library javascript file into your program. The line **src="/jquery/jquery-1.11.1.min.js"** points to the library file in your development environment.

Next pages show several good examples.

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## 1.8.4 Using JQuery Library Functions

As almost everything we do when using jQuery reads or manipulates the document object model (DOM), we need to make sure that we start adding events etc. as soon as the DOM is ready.

If you want an event to work on your page, you should call it inside the **\$(document).ready()** function. Everything inside it will load as soon as the DOM is loaded and before the page contents are loaded.

To do this, we register a ready event for the document as follows:

```
$(document).ready(function() {  
    // do stuff when DOM is ready  
});
```

And then to call upon any jQuery library function, use HTML script tags as shown below:

```
<html>  
<head>  
<title>The jQuery Example</title>  
    <script type="text/javascript"  
    src="/jquery/jquery-1.11.1.min.js"></script>  
    <script type="text/javascript" language="javascript">  
        $(document).ready(function() {  
            $("newdiv").click(function() {  
                alert("Hello world!");  
            });  
        });  
    // ]>  
</script>  
  
</head>  
<body>  
<div id="newdiv">  
Click on this to see a dialogue box.  
</div>  
</body>  
</html>
```

Example 1.72

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In Example 1.71, initially at the start you will see an output like the one shown in figure 1.89, and then clicking the “Click on this to see a dialog box” will pop the dialog message shown in figure 1.90.

Click on this to see a dialogue box.

Figure 1.92



Figure 1.93

## 1.8.5 Custom Files

It is better to write our custom code into a custom JavaScript file **custom.js** as follows:

```
/* Filename: custom.js */
$(document).ready(function() {
    $("newdiv").click(function() {
        alert("Hello world!");
    });
});
```

Example 1.73

and then include custom.js file in our HTML file as follows:

```
<html>
<head>
<title>The jQuery Example</title>
    <script type="text/javascript"
        src="/jquery/jquery-1.11.1.min.js"></script>
    <script type="text/javascript"
        src="/jquery/custom.js"></script>
</head>
<body>
<div id="newdiv">
Click on this to see a dialogue box.
</div>
</body>
</html>
```

Example 1.74

The rest of this lesson is beyond the scope of this course; hence assigned to the student to read. <http://api.jquery.com/>

Goto : <http://www.tutorialspoint.com/jquery/jquery-overview.htm>

## 1.9 Introduction to **XML** (Text Book Chapter 18)