



# What is jQuery?

Created by – Prof.Shewale K.M

# What is jQuery?

- ▶ jQuery is the most popular JavaScript framework.
- ▶ jQuery is designed to change the way that you write JavaScript (jQuery website <http://jquery.com/>)
- ▶ jQuery is a fast and concise JavaScript Library that simplifies HTML document traversing, event handling, animating, and Ajax interactions for rapid web development.

# What is jQuery?

- ▶ You write less code – what would take 20 lines or more of JavaScript can be achieved in just two or three lines of jQuery.
- ▶ The same code runs in all browsers – there's no need to write special code for Internet Explorer.
- ▶ It uses CSS selectors, leveraging knowledge that most web designers already have.

# What is jQuery?

- ▶ jQuery is a JavaScript Library.
- ▶ jQuery greatly simplifies JavaScript programming.
- ▶ jQuery is easy to learn.

# jQuery and DreamWeaver



- ▶ **Adobe Dreamweaver** has full code hinting for jQuery, making it even easier to use.

# Other JavaScript Libraries

- ▶ jQuery Mobile (<https://jquerymobile.com/>)
- ▶ Backbone.js (<http://backbonejs.org/>)
- ▶ Node.js (<https://nodejs.org/en/>)
- ▶ Express.js (<http://expressjs.com/en/index.html>)
- ▶ Underscore.js (<http://underscorejs.org/>)
- ▶ AngularJS (<https://angularjs.org/>)
- ▶ CoffeeScript (<http://coffeescript.org/>)
- ▶ Prototype (<http://www.prototypejs.org/>)
- ▶ Dojo Toolkit (<http://dojotoolkit.org/>)
- ▶ Moo Tools (<http://mootools.net/>)
- ▶ Yahoo! UI Library (<http://yuilib.com/>)
- ▶ Adobe Spry framework  
(<http://labs.adobe.com/technologies/spry/>)

# Why jQuery?

- ▶ jQuery works in all current browsers, including **Internet Explorer 6+**, **Firefox 2+**, **Safari 3+**, **Chrome**, and **Opera 9+**.
- ▶ It's free, open source code dual-licensed under the [MIT License](#) and [GNU General Public License](#).

# Why jQuery?

- ▶ It's estimated that three out of every four websites that use a JavaScript library have adopted jQuery.
- ▶ Leading companies that use jQuery include Amazon.com, Bank of America, BBC, and Twitter.
- ▶ Oh yes. . . It's relatively easy to learn.



# How to get jQuery

- ▶ Link to the latest version of the library hosted on a content distribution network (**CDN**).
- ▶ Download a copy of the library and store it with the files in your own site.
- ▶ Details of both methods can be found at **jQuery docs**  
([http://docs.jquery.com/Downloading\\_jQuery](http://docs.jquery.com/Downloading_jQuery))

# Linking to JQuery Library



`<p>This paragraph is part of the original  
HTML markup.</p>`

`<script type="text/javascript" src="js/jquery-  
3.7.1 min.js"></script>`

`</body>`

# Document Ready Handler



```
<script>  
    $(function() {  
  
        });  
</script>
```

Short Version

# Document Ready Handler



```
<script type="text/javascript">  
    $(document).ready(function(){
```

```
        });  
</script>
```

Long Version

# Try it yourself

```
<html>
<head>
  <script type="text/javascript" src="jquery.js"> </script>
  <script type="text/javascript">
    $(document).ready(function(){
      $("p").click(function(){
        $(this).hide();
      });
    });
  </script>
</head>
<body>
  <p>If you click on me, I will disappear.</p>
</body>
</html>
```

Example 1

# What is jQuery?

- ▶ jQuery is a library of JavaScript Functions.
- ▶ jQuery is a lightweight "write less, do more" JavaScript library.
- ▶ The jQuery library contains the following features:
  - HTML element selections
  - HTML element manipulation
  - CSS manipulation
  - HTML event functions
  - JavaScript Effects and animations
  - HTML DOM traversal and modification
  - AJAX
  - Utilities

# Adding the jQuery Library to Your Pages



- ▶ The jQuery library is stored as a single JavaScript file, containing all the jQuery methods.
- ▶ It can be added to a web page with the following mark-up:

```
<head>  
  <script type="text/javascript"  
    src="jquery.js"></script>  
</head>
```

# Basic jQuery Example

```
<html>
<head>
  <script type="text/javascript" src="jquery.js"></script>
  <script type="text/javascript">
    $(document).ready(function(){
      $("button").click(function(){
        $("p").hide();
      });
    });
  </script>
</head>
<body>
  <h2>This is a heading</h2>
  <p>This is a paragraph.</p>
  <p>This is another paragraph.</p>
  <button>Click me</button>
</body>
</html>
```

Example 2



# Downloading jQuery

- ▶ Two versions of jQuery are available for downloading: one minimised and one uncompressed (for debugging or reading).
- ▶ Both versions can be downloaded from [jQuery.com](http://jquery.com)

# Alternatives to Downloading



- ▶ If you don't want to store the jQuery library on your own computer, you can use the hosted jQuery library from Google or Microsoft.

- ▶ **Google**

```
<head>
```

```
  <script type="text/javascript"
```

```
    src="http://ajax.googleapis.com/ajax/libs/jquery/1.4.2/jquery.min.js"></script>
```

```
</head>
```

# Alternatives to Downloading



## ▶ Microsoft

```
<head>
```

```
  <script type="text/javascript"  
    src="http://ajax.microsoft.com/ajax/jque  
    ry/jquery-1.4.2.min.js"></script>
```

```
</head>
```

# jQuery Syntax

- ▶ The jQuery syntax is tailor made for **selecting** HTML elements and perform some **action** on the element(s).
- ▶ Basic syntax is: **\$(selector).action()**
  - A dollar sign to define jQuery
  - A (selector) to "query (or find)" HTML elements
  - A jQuery action() to be performed on the element(s)

# jQuery Syntax

## Examples:

- ▶ `$(this).hide()` – hides current element.
- ▶ `$("p").hide()` – hides all paragraphs
- ▶ `$("p.test").hide()` – hides all paragraphs with `class="test"`
- ▶ `$("#test").hide()` – hides the element with `id="test"`

# The Document Ready Function



- ▶ All jQuery methods are inside a **document.ready()** function:
  - `$(document).ready(function(){`  
*// jQuery functions go here...*  
`})`
- ▶ This is to prevent any jQuery code from running before the document is finished loading (is ready).

# The Document Ready Function



- ▶ Here are some examples of actions that can fail if functions are run before the document is fully loaded:
  - Trying to hide an element that doesn't exist
  - Trying to get the size of an image that is not loaded

# jQuery Selectors

- ▶ jQuery selectors allow you to select and manipulate HTML elements as a group or as a single element.
- ▶ jQuery selectors are required at every step while using jQuery. Selectors allow you to get the exact element/attribute you want from your HTML document.
- ▶ jQuery supports the existing CSS Selectors, and in addition, it has some own custom selectors.
- ▶ All type of selectors in jQuery, start with the dollar sign and parentheses: `$()`.



# Examples of jQuery Selectors

- ▶ `$("*")` selects all elements
- ▶ `$("p")` selects all `<p>` elements
- ▶ `$("p.intro")` selects all `<p>` elements with `class="intro"`
- ▶ `$("p#intro")` selects the first `<p>` elements with `id="intro"`
- ▶ `$(":animated")` selects all elements that are currently animated
- ▶ `$(":button")` selects all `<button>` elements and `<input>` elements of `type="button"`
- ▶ `$(":even")` selects even elements
- ▶ `$(":odd")` selects odd elements

# jQuery Event Functions

- ▶ The jQuery event handling methods are core functions in jQuery.
- ▶ Event handlers are methods that are called when "something happens" in HTML. The term **"triggered (or "fired") by an event"** is often used.
- ▶ It is common to put jQuery code into event handler methods in the `<head>` section:

# jQuery Event Functions

```
<html>
<head>
  <script type="text/javascript" src="jquery.js"></script>
  <script type="text/javascript">
    $(document).ready(function(){
      $("button").click(function(){
        $("p").hide();
      });
    });
  </script>
</head>
<body>
  <h2>This is a heading</h2>
  <p>This is a paragraph.</p>
  <p>This is another paragraph.</p>
  <button>Click me</button>
</body>
</html>
```

# jQuery Event Functions

- ▶ In the example above, a function is called when the click event for the button is triggered:

```
$("button").click(function() {..some code... } )
```

- ▶ The method hides all `<p>` elements:

```
$("p").hide();
```

# Functions In a Separate File

- ▶ If your website contains a lot of pages, and you want your jQuery functions to be easy to maintain, put your jQuery functions in a separate .js file:

```
<head>
```

```
  <script type="text/javascript"  
  src="jquery.js"></script>
```

```
  <script type="text/javascript"  
  src="my_jquery_functions.js"></script>
```

```
</head>
```