

jQuery Fundamentals

Lesson 01

Lesson Objectives

- jQuery Introduction
- Why jQuery?
- About jQuery.com
- Using jQuery
- Using Content Delivery Network(CDN)



1.1: jQuery Introduction

How webpage works

The diagram illustrates the process of how a webpage works, showing the flow from an HTML file to a rendered page and then to dynamic updates.

Step 1: The browser loads the HTML File from the server. An icon of a document labeled `index.html` is shown next to a text box with this description.

Step 2: The browser layout engine goes through HTML and CSS to build the document using HTML DOM and the browser displays the rendered page. This step is represented by a flow from `index.html` to a folder icon labeled "DOM version of the page", which then points to the Internet Explorer browser window.

Step 3: JS interpreter reference DOM to make change without reloading the webpage. This step is represented by a flow from a "JavaScript interpreter" icon to a folder icon labeled "DOM version of the page".

The background of the diagram features a screenshot of a Windows Internet Explorer browser window displaying `Index.html`. The browser's address bar shows `D:\Index.html`. The status bar at the bottom indicates "Done", "Computer", and "Protected Mode: Off".

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1.1: jQuery Introduction

jQuery Introduction

- jQuery is a JavaScript library (single file)
- It supports cross browser
- Select HTML elements
- Handle Events
- Animate HTML elements
- Make Ajax calls
- 1000's of plug-ins available

1.2: Why jQuery?

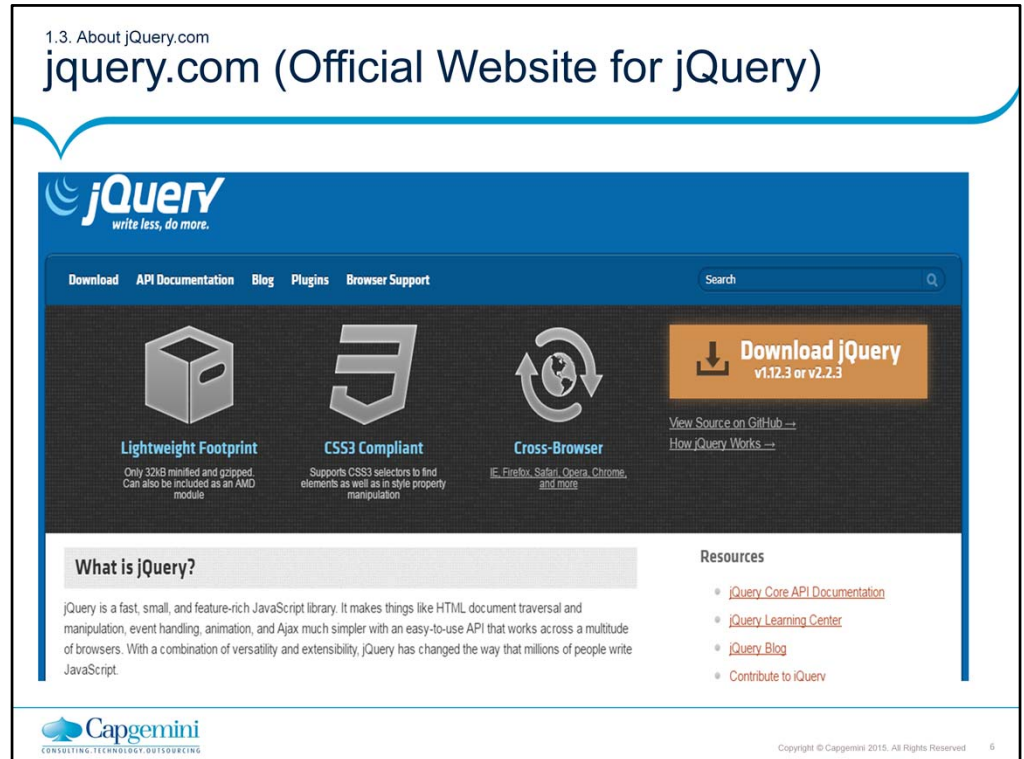
Why jQuery?

- JavaScript is great for a lot of things especially manipulating the DOM but it's pretty complex stuff.
- jQuery abstracts away a lot of the complexity involved in dealing with the DOM, and makes creating effects super easy.
- It can locate elements with a specific class
- It can apply styles to multiple elements
- It solves the cross browser issues
- It supports method chaining
- It makes the client side development very easy



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1.4. Using jQuery

Using jQuery

```
<html>
<head>
<title>Test jQuery</title>
<script type="text/javascript" src="jquery-1.12.3.js"></script>
<script type="text/javascript">
  $(document).ready(function(){
    alert('Hi'); });
</script>
</head>
<body>
  jQuery Enabled
</body>
</html>
```

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`ready()` method is called after the DOM has been initialized

The handler passed to `.ready()` is guaranteed to be executed after the DOM is ready, so this is usually the best place to attach all other event handlers and run other jQuery code. When using scripts that rely on the value of CSS style properties, it's important to reference external stylesheets or embed style elements before referencing this scripts., the new handler passed in will be executed immediately.

Demo

- jQuery-Intro.html



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1.5: Content Delivery Network(CDN)

Content Delivery Network(CDN)

- Script can be also accessible from
 - Microsoft - <http://ajax.aspnetcdn.com/ajax/jquery/jquery-1.12.3.min.js>
 - jQuery - <http://code.jquery.com/jquery-1.12.3.min.js>
 - Google - <http://ajax.googleapis.com/ajax/libs/jquery/1.12.2/jquery.min.js>
- A CDN short for Content Delivery Network distributes static content across servers. When a user's browser resolves the URL for these files, their download will automatically target the closest available server in the network.



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A CDN short for Content Delivery Network distributes static content across servers in various, diverse physical locations. When a user's browser resolves the URL for these files, their download will automatically target the closest available server in the network.

If jQuery is hosted locally then users must download it at least once. User probably already has dozens of identical copies of jQuery in their browser's cache, but those copies of jQuery are ignored when they visit your site. Even if someone visits hundreds of sites using the same CDN hosted version of jQuery, they will only need download it once!



noConflict method :

Many JavaScript libraries use \$ as a function or variable name, just as jQuery does.

In jQuery's case, \$ is just an alias for jQuery, so all functionality is available without using \$. If we need to use another JavaScript library alongside jQuery,

we can return control of \$ back to the other library with a call to \$.noConflict

```
<script type="text/javascript" src="other_lib.js"></script>
<script type="text/javascript" src="jquery.js"></script>
<script type="text/javascript">
$.noConflict();
//Code that uses other libraries $ can follow here.
</script>
```

Lab

- 1.1: Creating jQuery Page
- 1.2: Accessing jQuery Script from CDN



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Summary

- jQuery is a cross browser java script library
- Available at <http://www.jquery.com>
- Provide a robust way to manipulate DOM elements
- The ready() function detects when the DOM hierarchy is loaded



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Review Question

- Which sign does jQuery use as a shortcut for jQuery?
 - \$ Sign
 - % Sign
 - # Sign
 - ? Sign

- Which jQuery function is used to prevent code from running, before the document is finished loading?
 - \$(document).load()
 - \$(document).ready()
 - \$(body).onload()



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