

jQuery

- A JavaScript library written in JavaScript
- not a W3C standard
- Collection of JavaScript code that provides solutions to many of mundane, day-to-day tasks of JavaScript
- Makes it easy to complete common tasks
- Makes programming fun, fast and rewarding

“write less do more”

With jQuery you can achieve in a single line of code what could take 100 lines of JavaScript programming

jQuery

- is used to select elements on the page
- uses CSS selectors to select elements
- Uses Xpath expressions to select elements

Other JavaScript libraries

- Yahoo user interface library
- Dojo toolkit
- Mootools
- Prototype
- Scriptaculous
- and many more

jQuery

External JavaScript file

Link to your webpage using CDN or host on your website

CDN

Google, Microsoft, jQuery.com – Content Distribution Network (CDN)

- servers located around the globe
- handling distribution of the file to your site visitors
- Good chance that site visitors already have the jQuery file saved in their browser's cache
- maintenance and updates

Download the jQuery file to your computer and add it to your website

connection to the Internet is not required

jQuery Download - <http://jquery.com/download/>



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Downloading jQuery

Compressed and uncompressed copies of jQuery files are available. The uncompressed file is best used during development or debugging; the compressed file saves bandwidth and improves performance in production. You can also [download](#) a [sourcemap file](#) for use when debugging with a compressed file. The map file is *not* required for users to run jQuery, it just improves the developer's debugger experience. As of jQuery 1.11.0/2.1.0 the `//# sourceMappingURL` comment is [not included](#) in the compressed file.

To locally [download](#) these files, right-click the link and select "Save as..." from the menu.

jQuery 1.x

The jQuery 1.x line had major changes as of jQuery 1.9.0. We *strongly* recommend that you also use the jQuery Migrate plugin if you are upgrading from pre-1.9 versions of jQuery or need to use [plugins](#) that haven't yet been updated. Read the [jQuery 1.9 Upgrade Guide](#) and the [jQuery 1.9 release blog post](#) for more information.

[Download the compressed, production jQuery 1.11.1](#)

[Download the uncompressed, development jQuery 1.11.1](#)

[Download the map file for jQuery 1.11.1](#)

[jQuery 1.11.1 release notes](#)



The jQuery Plugin Registry

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Popular Tags

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- [image](#) (166)
- [slider](#) (130)
- [slideshow](#) (115)
- [effect](#) (113)
- [responsive](#) (113)

★ New Plugins

Imapping map embedding plugin

Version 1.0.4

Released 3 hours ago

jQuery plugin which allows a user to embed a custom map to a website, containing list of desired territories and choice of drawing styles. Soon, user will be allowed to define events for mouse click on an area and multiple areas selection.

0

WATCHERS

0

FORKS

jquery-mutation-summary

Version 0.2.2

Released 18 hours ago

A jQuery wrapper/plugin for mutation-summary,

29

4

Recent Updates

- [jQuery Boilerplate](#)
(version 3.3.3)
- [Imapping map embedding plugin](#)
(version 1.0.4)
- [Image Map Resizer](#)
(version 0.3.4)
- [jQuery Form - Fancy Web Form Designer](#)
(version 2.3.24)
- [jQuery Dropdown Menu](#)
(version 1.3.54)
- [Reset](#)

jQuery – linking a file on a CDN server

Linking using the jQuery CDN:

```
<script src="http://code.jquery.com/jquery-1.7.2.min.js"></script>
```

Linking using Google's CDN:

```
<script src="http://ajax.googleapis.com/ajax/libs/jquery/1.7.2/  
jquery.min.js"></script>
```

Google CDN is the most popular

jQuery – downloading your own jQuery file

to use jQuery you must download the jQuery library

http://docs.jquery.com/Downloading_jQuery/

- download jQuery library
- put it in js folder
- reference through the `<script>` element
`<script src="js/jquery-1.7.2.min.js"></script>`

jQuery ready()

`$(document).ready()`

is used to prevent code from running until the pages has finished loading

jQuery ready()

```
$(document).ready(function(){  
  //add code here  
});
```

This code will execute as soon as the HTML document is loaded in the browser window and ready (for work)

Ready event replaces window.onload JavaScript

jQuery ready()

```
$( document ).ready(function() {  
document.write('Welcome to jQuery');  
});
```

When the page is finished loading in the browser;

- The string will be written to the body of the document

jQuery – test

```
<html>
<head>
<script src="js/jquery-1.11.1.min.js"></script>
<script>
$( document ).ready(function() {
document.write('Welcome to jQuery');
});
</script>
</head>
<body>
</body>
</html>
```

jQuery_ready()

```
$(document).ready(function(){  
    $("span").addClass("blue");  
    $("div#content").css("background-color", "#00ffff");  
});
```

When the page is finished loading in the browser;

- all elements will have the CSS class 'blue' applied to them
- the <div> with id="content" element will have a cyan bg color

jQuery – Client Scripting Language

Client scripting takes place after the page has been sent to the browser

JavaScript

jQuery

Server scripting takes place before the page is sent to the browser

PHP

jQuery

can be mixed with other frameworks and scripting languages:

JavaScript

Ajax

JSON

jQuery Syntax

`$(selector).action()`

\$ defines statement as being jQuery

The `selector` is used to find (query) HTML elements on the page

The `.action()` is the jQuery action to be performed on the elements

jQuery

calls could look like:

```
jQuery("div")
```

uses the \$ dollar sign as a shortcut so that jQuery calls look like:

```
$("#div")
```

jQuery

What does the following expression of jQuery select?

```
$("#a")
```

Does it select all a elements on the page?

Does it select only the first a element on the page?

jQuery

What does the following expression of jQuery select?

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Does it select all a elements on the page?

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All a elements on the page

html() in jQuery

html() is used to set the inner HTML, the value, of HTML elements:

```
$("#div").html("types this inside the div");
```

```
$("#td").html("types this into the table cell");
```

html() in jQuery

used to retrieve the contents of an element

works with HTML documents, but not work with XML docs

```
$("#div").html()
```

returns the value of the first div

```
$("#td").html()
```

returns the value of the first td

jQuery

```
$("#div").css("background-color", "orange");
```

setting the first div to have a background color of orange?

setting all div elements to have a background color of orange?

jQuery

```
$("#div").css("background-color", "orange");
```

setting the first div to have a background color of orange?

setting all div elements to have a background color of orange?

All div elements

jQuery –CSS selectors

```
document.getElementById()
```

```
document.getElementsByTagName()
```

These methods do not provide control to make subtle kinds of selection

e.g. selecting every `<a>` tag with class of “yellow”- first select every `<a>` tag, than go through each to find class name

jQuery – CSS selectors

jQuery works with CSS selectors

CSS selector is an instruction which tells a browser which tag the style applied to

e.g.

`h1` - element selector which applies to every `<h1>` tag

`.copyright` - class selector which styles any tag that has a class attribute of `copyright`

```
<p class="copyright"> Copyright, 2014</p>
```

CSS Attribute Selectors

CSS Attribute Selectors

Simple attribute selector

selects all elements with the matching attribute class

```
p[class] {color: blue}
```

CSS Selectors

```
$("div").css("background-color", "#0000ff");
```

sets the bg color of all <div> elements in the document to blue
to specify an individual <div> we can use #id

CSS Selectors

```
<head>
```

```
  <style type="text/css">
```

```
    a.mad { font-weight:bold; }
```

```
  </style>
```

```
</head>
```

```
$("a").addClass("mad");
```

adds the CSS class 'mad' to all <a> elements

```
$("a").removeClass("mad");
```

removes the CSS class 'mad' from all <a> elements

jQuery Controls CSS Styles

Sets width and height

```
$("#div").height(65);
```

sets the height of all div elements to 65 pixels

```
$("#div").width(480);
```

sets the width of all div elements to 480 pixels

jQuery Controls CSS Styles

```
$("#div.navMain")
```

selecting the first div with id="navMain"?

selecting all div with class="navMain"?

selecting the first div with class="navMain"?

selecting all div with id="navMain"?

jQuery Controls CSS Styles

```
$("#div.navMain")
```

selecting the first div with id="navMain"?

selecting all div with class="navMain"?

selecting the first div with class="navMain"?

selecting all div with id="navMain"?

selecting all div elements with class="navMain"

jQuery Controls CSS Styles

```
$("#navMain")
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selecting all div with class="navMain"?

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jQuery Controls CSS Styles

```
$("#navMain")
```

selecting the first div with id="navMain"?

selecting all div with class="navMain"?

selecting the first div with class="navMain"?

selecting all div with id="navMain"?

selecting all div elements with id="navMain"

jQuery hide()

hide() - hides an element

arguments:

slow

fast

without indicating slow or fast argument
the element will be hidden immediately

jQuery Syntax

```
$("#a").addClass("orange");
```

adds a CSS class named 'orange' to all <a> elements

```
$("#a").removeClass("orange");
```

removes the CSS class named 'orange' from all <a> elements

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

hides all <p> tags on the page

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

hides all <p> tags 'slowly' on the page

jQuery Syntax

`$(this)`

refers to the current HTML element

`$("p")`

p - any HTML element

refers to the paragraph element

`$("a.yellow")`

refers to the `<a>` element with `class="yellow"`

jQuery Syntax

`$("#yellow")`

Refers to the element with `id="yellow"`

`$("#div#yellow")`

Refers to the `<div>` element with `id="yellow"`

jQuery exercise

Create an HTML page that uses jQuery to apply CSS class on all divs containing images. Add the CSS to format the boxes with images. Add background, size, positions to make images lined up in the larger box (wrapper). Practice your CSS rules and styles to get a better understanding of CSS

Add the jQuery scripts to change the following:

- margins set to 10 pixels
- background color of the image divs set to white
- resizes images to 100 by 100 px
- page background color set to gray, and resize