

# jQuery

Introduction to jQuery

jQuery syntax

CSS styles/ jQuery

Sliding Menu / Focus-Blur

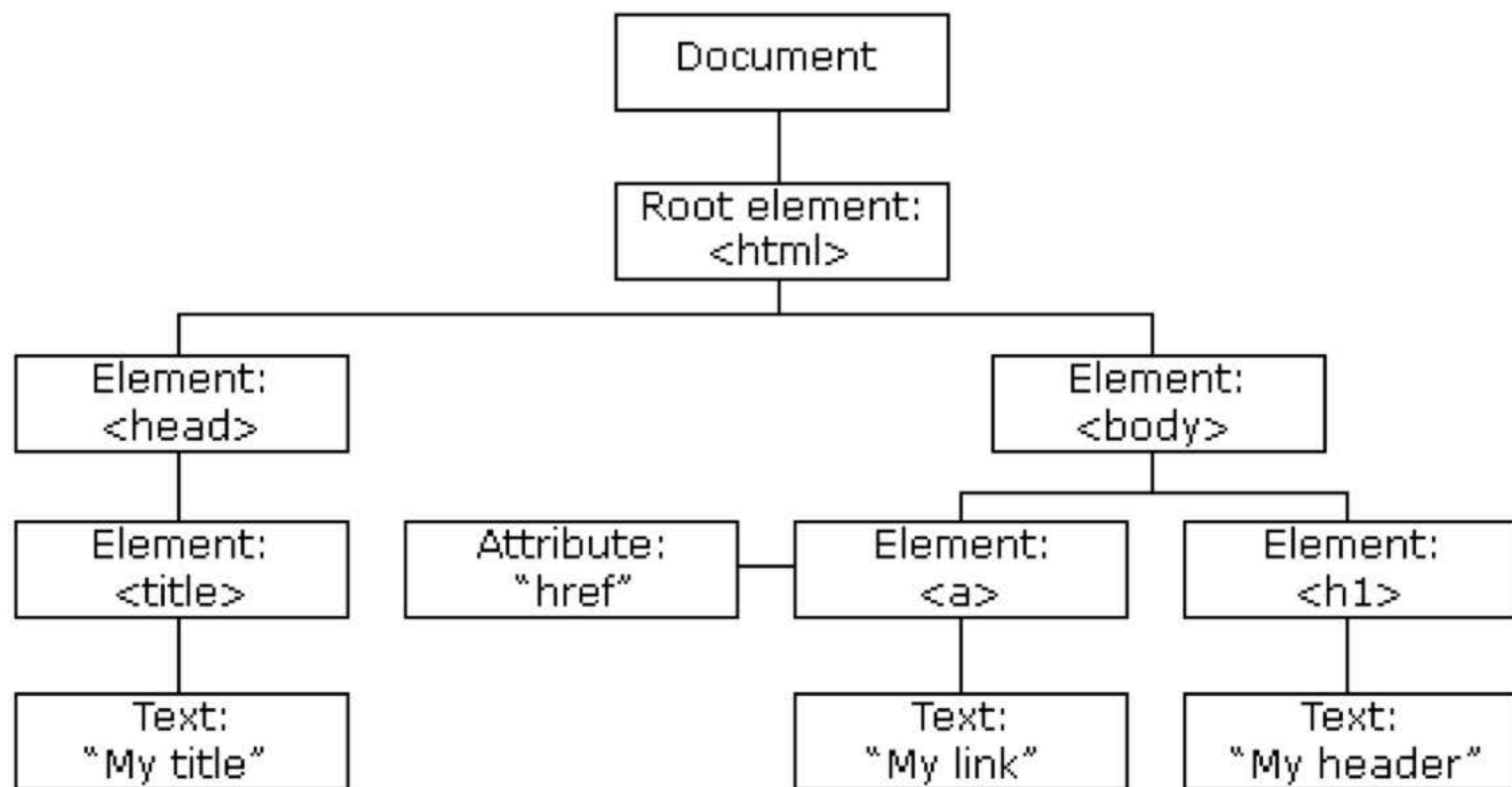
Lab

# DOM

## The Document Object Model (DOM)

is a programming interface for HTML, XML and SVG documents. It provides a structured representation of the document (a tree) and it defines a way that the structure can be accessed from programs so that they can change the document structure, style and content.

# The HTML DOM Tree of Objects



# DOM

When a web page is loaded, the browser creates a Document Object Model of the page.

jQuery traversing ("move through") are used to "find" (or select) HTML elements based on their relation to other elements. Start with one selection and move through that selection until you reach the elements you desire.

# jQuery

## jQuery

to manipulate the DOM (document object model)  
and abstracting away the browser

Simplifies DOM traversing

Animation

Ajax integration

Event handling

# jQuery Mobile

## jQuery Mobile

To build user interface

- Pages
- List views
- Buttons
- Toolbars
- Forms
- Content formatting

# jQuery

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

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

[Plugins](#)[Contribute](#)[Events](#)[Support](#)[jQuery Foundation](#)

## JQUERY.TO();

TORONTO, CANADA | MARCH 15-16TH, 2014

[Download](#)[API Documentation](#)[Blog](#)[Plugins](#)[Browser Support](#)

## 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 1.11.0](#)

[Download the uncompressed, development jQuery 1.11.0](#)





# The jQuery Plugin Registry

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## Popular Tags

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- [slideshow](#) (115)
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## ★ 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 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 is:

- a form of JavaScript
- a JavaScript library
- not a W3C standard
- written in JavaScript scripting language

# Using jQuery - internal

to use jQuery you must reference the jQuery library

```
<script  
src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.0/jquery.min.js  
></script>
```

- download jQuery library
- put it in js folder
- reference through the <script> element

# Using jQuery - external

The browser does not know where jQuery is located

- linking to jQuery library on jQuery.com:

```
<script type="text/javascript" src="http://code.jquery.com/jquery-1.6.4.min.js"></script>
```

```
<script type="text/javascript" src="http://code.jquery.com/mobile/1.0/jquery.mobile-1.0.min.js"></script></head>
```

- using the `<script>` element to reference a jQuery library held at Google:

```
<script src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.0/jquery.min.js"></script>
```

# jQuery

calls could look like:

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

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

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

# jQuery

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

Selects all <a> elements on the page

# 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

```
$("#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 ready()

ready () happens when the browser first loads

It replaces the older JavaScript call `window.onload()`

```
$(document).ready()
```

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

# Ready Event

```
$(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

# Ready Event

```
$(document).ready(function(){  
    $("button").click(function(){  
        $("h1, h2, p").addClass("blue");  
  
    });  
});
```

# jQuery Controls CSS Styles

```
<script>
$(document).ready(function(){
    $("button").click(function(){
        $("h1, h2, p").addClass("blue");
        $("div").addClass("orange");
        $("a").addClass("orange");
    });
});
</script>
```

# jQuery Controls CSS Styles

to toggle class (e.g., on every click) alternating adding the class, then removing it, adding it, ...etc.

```
$("#div").toggleClass("orange");
```



# 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")
```

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

`$("#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 Syntax

`$(this)`

refers to the current HTML element

`$("span")`

p - any HTML element

refers to the paragraph element

`$("a.yellow")`

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

# jQuery hide()

hide() - hides an element

arguments:

slow

fast

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

# jQuery hide()

```
$("#span").click(function(){  
    $(this).hide();  
});
```



# jQuery Syntax

```
$(this).hide("slow");
```

hides all `<span>` tags 'slowly' on the page

# jQuery Syntax

`$("#yellow")`

Refers to the element with id="yellow"

`$("#div#yellow")`

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

# CSS Selectors

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

sets the bg color of all <div> elements in the document to gray  
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

# Event Functions

```
$("#div#dragon").click(function(event){  
    event.preventDefault();  
    $(this).hide("slow"); });
```

- when the <div> with id="dragon" is clicked, jQ prevents any default functionality and hides the <div>
- 'event' is the variable name we used as a parameter:  
function(event) or function(e), and after: e.preventDefault();
- hide() - built-in effect provided by jQuery
- This has to be launched from the ready event

# Event Functions

```
<script type="text/javascript">
    $(document).ready(function(){
        $("#div#wrapper").click(function(e){
            e.preventDefault();
            $(this).hide("slow");
        });    //end of click event
    });    //end of ready event
</script>
```

# .hide() Effect

.hide()

```
$(this).hide("slow");
```

hides the current element

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

hides the element with id="footer"

```
$("a").hide("fast");
```

hides all the <a> elements

# .animate() Effect

Ex: jQuery\_animate.html  
image id="pic"

Clicking the div will shrink the image over 3 seconds to disappear

Clicking the div again will expand the image over 3 seconds to full size

Opacity and position will remain adjusted, however



# .animate() Effect

Image id="img1"

Clicking the div will shrink the image over  
3 seconds until it disappears

Clicking the div again will expand the image over 3 seconds until it is  
full size again

# .animate() Effect

Ex. jQuery\_animate\_opacity.html

```
$("#h1").animate({'opacity' : 1, left:"+=25",  
    height:"toggle"}).hover(function() {  
        //on hover, change opacity to 50%  
        $("#h1").animate({'opacity' : .5});  
    }, function() {  
        //on exit hover, change opacity back to 100%  
        $("#h1").animate({'opacity' : 1});  
    });
```

# jQuery Lab

Use jQuery examples page from w3schools website

[http://www.w3schools.com/jquery/jquery\\_examples.asp](http://www.w3schools.com/jquery/jquery_examples.asp)

To test two different jQuery methods in your document