

INFO 2302 Web Technologies

JQuery

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JQuery

<https://jquery.com/>

A huge collection of
Javascript objects and methods
that are free to use and link to

pre-defined



jQuery doesn't do
anything you cannot
achieve with pure
JavaScript

It is just a JavaScript file.
Estimates show it has
been used on over a
quarter of the sites on the
web, because it makes
coding simpler.

Using JQuery with a CDN

A CDN (or [content delivery network](#)) can offer a performance benefit by hosting jQuery on servers spread across the globe. This also offers an advantage that if the visitor to your webpage has already downloaded a copy of jQuery from the same CDN, it won't have to be re-downloaded.

Step 1	Go to Google Hosted Libraries: https://developers.google.com/speed/libraries#jquery
Step 2	Copy the latest CDN, say: <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.7.1/jquery.min.js"></script>
Step 3	Reference JQuery in your webpage: <head> <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.7.1/jquery.min.js"></script> </head>

Other JQuery CDNs

Microsoft CDN	https://learn.microsoft.com/en-us/aspnet/ajax/cdn/overview#jQuery Releases on the CDN 0
CDNJS CDN	https://cdnjs.com/libraries/jquery
jsDelivr CDN	https://www.jsdelivr.com/package/npm/jquery

Basic JQuery syntax

`$(selector).action()`

Examples

`$(this).hide()` - hides the current element.

`$("p").hide()` - hides all `<p>` elements.

`$(".test").hide()` - hides all elements with `class="test"`.

`$("#test").hide()` - hides the element with `id="test"`.

`$("p:first").hide()` - hides the first `<p>` element".

`$("tr:even").hide()` - hides all even `<p>` elements".

`$("tr:odd").hide()` - hides all odd `<p>` elements".

DOM/JQuery comparison

DOM method	JQuery equivalent
getElementById("id")	\$("#id")
getElementsByTagName("tag")	\$("tag")
getElementByClassName("class")	\$(".class")
querySelector("selector")	\$("selector")
querySelectorAll("selector")	\$("selector")

JQuery Demo

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.7.1/jquery.min.js"></script>
  <title>Document</title>
</head>
<body>
  <a href="http://jquery.com/">jQuery</a>
  <script>
    $( document ).ready(function() {
      $( "a" ).click(function( event ) {
        alert( "The link will no longer take you to jquery.com" );
        event.preventDefault();
      });
    });
  </script>
</body>
</html>
```

Chaining

Chaining - Calling multiple methods on the same selection

```
➤ $( 'li [id != "one"] ' )  
    .hide()           //hides the element  
    .delay(500)       //creates a pause  
    .fadeIn(1400);    //fades in the element
```

Tip: Place each new method in a new line so that the codes are easier to read

JQuery Chaining Demo

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.7.1/jquery.min.js"></script>
  <title>jQuery Chaining</title>
</head>
<body>
  <h3>Bread ingredients</h3>
  <ul>
    <li id="one">warm water</li>
    <li id="two">sugar</li>
    <li id="three">yeast</li>
    <li id="four">salt</li>
    <li>vegetable oil</li>
  </ul>

  <button>Click me!</button>
</body>
</html>
```

```
<script>
$( document ).ready(function() {
  $('button').click(function() {
    $('li[id != "one"]')
      .hide()
      .delay(500)
      .fadeIn(1000);
  })
});
</script>
```

`$(document).ready()`

A page can't be manipulated safely until the document is "ready." jQuery detects this state of readiness for you. Code included inside `$(document).ready()` will only run once the page DOM is ready for JavaScript code to execute.

Whereas, code included inside `$(window).on("load", function() { ... })` will run once the entire page (images or iframes), not just the DOM, is ready.

Basic syntax

```
$(document).ready(function() {  
    console.log("ready!");  
});
```

Shorthand

```
$(function() {  
    console.log("ready!");  
});
```

JQuery Events

jQuery offers convenience methods for most native browser events. These methods — including `.click()`, `.focus()`, `.blur()`, `.change()`, etc. — are shorthand for jQuery's `.on()` method

```
1 | // Event setup using a convenience method
2 | $( "p" ).click(function() {
3 |     console.log( "You clicked a paragraph!" );
4 | });
```

```
1 | // Equivalent event setup using the `.on()` method
2 | $( "p" ).on( "click", function() {
3 |     console.log( "click" );
4 | });
```

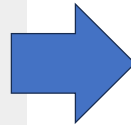
JQuery Effects

Examples of JQuery Effect

Show and Hide Contents	.show() .hide()	\$('p').show() \$('p').show('slow'); \$('p').hide(); \$('p').hide('fast'); \$('p').hide(500);
Fade and Slide	.slideUp() .slideDown() .fadeIn() .fadeOut	.slideUp(1000); .slideDown(500); .fadeIn(750); .fadeOut(600);

jQuery .val () - accessing a value

```
<select id="myselect">
  <option value="1">Mr</option>
  <option value="2">Mrs</option>
  <option value="3">Ms</option>
  <option value="4">Dr</option>
  <option value="5">Prof</option>
</select>
```



```
//accessing value
$( "#myselect" ).val();
// => 1
```

```
//accessing text value of a selected option
$( "#myselect option:selected" ).text();
// => "Mr"
```

JQuery Plug-in

A jQuery plugin is simply a new method that we use to extend jQuery's prototype object.

By extending the prototype object you enable all jQuery objects to inherit any methods that you add. As established, whenever you call jQuery() you're creating a new jQuery object, with all of jQuery's methods inherited.

Refer <https://plugins.jquery.com/> to find JQuery plugins.

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jQueryUI

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Using JQueryUI with a CDN

Step 1	Go to Google Hosted Libraries: https://developers.google.com/speed/libraries#jquery
Step 2	Copy the latest CDN for JQuery and JQueryUI: <pre><!--JQuery CDN--> <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.7.1/jquery.min.js"></script> <!--JQueryUI CDN--> <link rel="stylesheet" href="https://ajax.googleapis.com/ajax/libs/jqueryui/1.13.2/themes/smoothness/jquery-ui.css"> <script src="https://ajax.googleapis.com/ajax/libs/jqueryui/1.13.2/jquery-ui.min.js"></script></pre>
Step 3	Reference JQuery and JQueryUI CDN in your webpage: <pre><head> <!-- Paste your JQuery and JQueryUI CDN here--> </head></pre>

Using JQueryUI as Content Panels

Accordion

Displays collapsible content panels for presenting information in a limited amount of space.

▶ Section 1

▶ Section 2

▶ Section 3

▼ Section 4

Cras dictum. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Aenean lacinia mauris vel est.

Suspendisse eu nisl. Nullam ut libero. Integer dignissim consequat lectus. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos himenaeos.

Examples

Default functionality

Collapse content

Customize icons

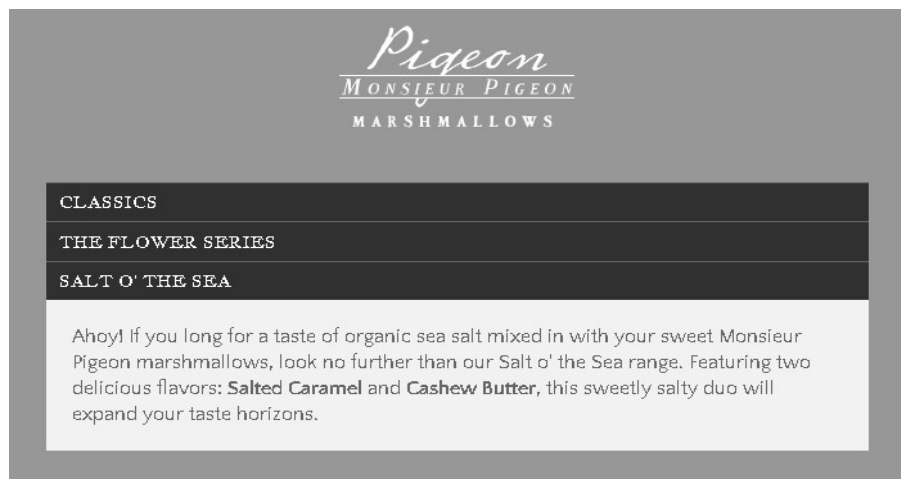
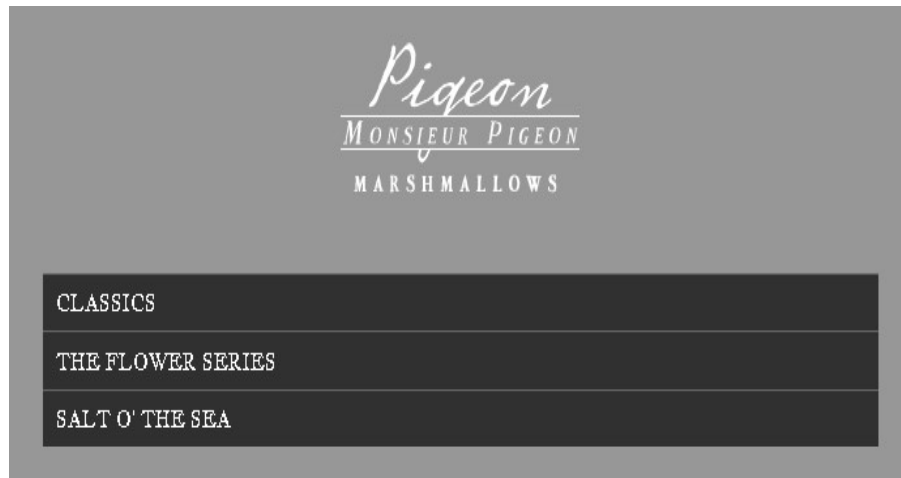
Fill space

No auto height

Sortable

Default look of the Accordion widget

Source: <https://jqueryui.com/accordion/>



An accordion is usually created within an unordered list (in a `` element). Each `` element is a new item in the accordion.

- jQuery will be used to animate the panel into view or hide it. (refer `accordion.js`)
- The items contain: (refer `accordion.html`)
- A visible label (in this example, it is a `<button>`)
- A hidden panel holding the content (a `<div>`)

When you click on the title of an accordion, its corresponding panel expands to reveal the content.

```
<!DOCTYPE html>
<html>
<head>  <title>JavaScript & jQuery - Chapter 11: Content Panels - Accordion</title>
<link rel="stylesheet" href="css/base.css" />
<link rel="stylesheet" href="css/accordion.css" />
</head>
<body>
  <header><h1>Monsieur Pigeon</h1></header>

  <section class="page">
    <ul class="accordion">
      <li>  <button class="accordion-control">Classics</button>
        <div class="accordion-panel">
          <p>If you like your flavors traditional, Monsieur Pigeon's classic marshmallows won't
            disappoint. With luxuriously <strong>Velvety Vanilla</strong>, <strong>Charming
            Chocolate</strong>, and <strong>Sumptuous Strawberry</strong>, the favorites you
            love are treated with the respect and dignity they deserve!</p>
        </div>
      </li>
      .....
    </ul>
  </section>

  <script src="js/jquery-1.11.0.min.js"></script>
  <script src="js/accordion.js"></script>
</body>

</html>
```

accordion.html

Reference

JQuery User Interface <https://jqueryui.com/>

Wiley. JavaScript & JQuery – interactive front end web development.
Retrieved from <https://www.javascriptbook.com/code/c11/>