

What is jQuery?

jQuery is a lightweight, "write less, do more", JavaScript library.

The purpose of jQuery is to make it much easier to use JavaScript on your website.

jQuery has been designed to simplify HTML DOM tree and manipulation, as well as event handling, CSS animation, and Ajax.

jQuery can be used to find a particular HTML element in the HTML document with a certain ID, class or attribute and later we can use jQuery to change one or more of attributes of the same element like color, visibility etc. jQuery can also be used to make a webpage interactive by responding to an event like a mouse click.

The jQuery library contains the following features:

- HTML/DOM manipulation
- CSS manipulation
- HTML event methods
- Effects and animations
- AJAX

WHY JQUERY?

There are lots of other JavaScript libraries out there, but jQuery is probably the most popular, and also the most extendable.

Downloading jQuery

There are two versions of jQuery available for downloading:

- Production version - this is for your live website because it has been minified and compressed
- Development version - this is for testing and development (uncompressed and readable code)

Both versions can be downloaded from [jQuery.com](https://jquery.com).

The jQuery library is a single JavaScript file, and you reference it with the HTML `<script>` tag

```
<script src="jquery-3.6.1.min.js"></script>
```

or

```
<script  
src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.1/jquery.min.js">  
</script>
```

jQuery Syntax

Basic syntax is: `$(selector).action()`

- A `$` sign to define/access jQuery
- A (selector) to "query (or find)" HTML elements
- A jQuery `action()` to be performed on the element(s)

The Document Ready Event

Whenever you use jQuery to manipulate your web page, you wait until the document ready event has fired. The document ready event signals that the DOM of the page is now ready, so you can manipulate it without worrying that parts of the DOM has not yet been created.

```
$(document).ready(function(){  
  
    // jQuery methods go here...  
  
});
```

jQuery Selectors

jQuery selectors allow you to select and manipulate HTML element(s).

jQuery selectors are used to "find" (or select) HTML elements based on their name, id, classes, types, attributes, values of attributes and much more. It's based on the existing CSS Selectors, and in addition, it has some own custom selectors.

```
$(document).ready(function(){  
    console.log($(".p"))  
    console.log($("#demo"))  
    console.log($(".abc"))  
    console.log($("ul li"))  
    console.log($("div > p")) // etc  
});
```

jQuery Event

An event represents the precise moment when something happens.

Examples:

- moving a mouse over an element
- selecting a radio button
- clicking on an element

```
$("#p").click(function(){  
    // action goes here!!  
});
```

jQuery Effects - Hide and Show

```
$(selector).hide(speed,callback);
```

```
$(selector).show(speed,callback);
```

```
$(selector).toggle(speed,callback);
```

jQuery Manipulating CSS

- `addClass()` - Adds one or more classes to the selected elements (internal/external csss)
- `removeClass()` - Removes one or more classes from the selected elements (internal/external csss)
- `toggleClass()` - Toggles between adding/removing classes from the selected elements (internal/external csss)
- `css()` - Sets or returns the style attribute (inline css)



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