

# jQuery (FRONTEND LIBRARY)

## jQuery: Learn How Script Tags and Document Ready Work

Now we're ready to learn jQuery, the most popular JavaScript tool of all time.

Before we can start using jQuery, we need to add some things to our HTML.

First, add a script element at the top of your page. Be sure to close it on the following line.

Your browser will run any JavaScript inside a script element, including jQuery.

Inside your script element, add this code: `$(document).ready(function() {` to your script. Then close it on the following line (still inside your script element) with: `});`

We'll learn more about functions later. The important thing to know is that code you put inside this function will run as soon as your browser has loaded your page.

This is important because without your `document ready` function, your code may run before your HTML is rendered, which would cause bugs.

## jQuery: Target HTML Elements with Selectors Using jQuery

Now we have a `document ready` function.

Now let's write our first jQuery statement. All jQuery functions start with a `$`, usually referred to as a dollar sign operator, or as `bling`.

jQuery often selects an HTML element with a *selector*, then does something to that element.

For example, let's make all of your `button` elements bounce. Just add this code inside your document ready function:

```
$("#button").addClass("animated bounce");
```

Note that we've already included both the jQuery library and the `Animate.css` library in the background so that you can use them in the editor. So you are using jQuery to apply the `Animate.css` bounce class to your `button` elements.



## jQuery: Target Elements by Class Using jQuery

You see how we made all of your button elements bounce? We selected them with `$("button")`, then we added some CSS classes to them with `.addClass("animated bounce");`.

You just used jQuery's `.addClass()` function, which allows you to add classes to elements.

First, let's target your div elements with the class `well` by using the `$(".well")` selector.

Note that, just like with CSS declarations, you type a `.` before the class's name.

Then use jQuery's `.addClass()` function to add the classes `animated` and `shake`.

For example, you could make all the elements with the class `text-primary` shake by adding the following to your document `ready` function:

```
$(".text-primary").addClass("animated shake");
```

## jQuery: Target Elements by id Using jQuery

You can also target elements by their id attributes.

First target your button element with the id `target3` by using the `$("#target3")` selector.

Note that, just like with CSS declarations, you type a `#` before the id's name.

Then use jQuery's `.addClass()` function to add the classes `animated` and `fadeOut`.

Here's how you'd make the button element with the id `target6` fade out:

```
$("#target6").addClass("animated fadeOut");
```





## jQuery: Remove Classes from an Element with jQuery

In the same way you can add classes to an element with jQuery's `addClass()` function, you can remove them with jQuery's `removeClass()` function.

Here's how you would do this for a specific button:

```
$("#target2").removeClass("btn-default");
```

## jQuery: Change the CSS of an Element Using jQuery

We can also change the CSS of an HTML element directly with jQuery.

jQuery has a function called `.css()` that allows you to change the CSS of an element.

Here's how we would change its color to blue:

```
$("#target1").css("color", "blue");
```

This is slightly different from a normal CSS declaration, because the CSS property and its value are in quotes, and separated with a comma instead of a colon.

## jQuery: Disable an Element Using jQuery

You can also change the non-CSS properties of HTML elements with jQuery. For example, you can disable buttons.

When you disable a button, it will become grayed-out and can no longer be clicked.

jQuery has a function called `.prop()` that allows you to adjust the properties of elements.

Here's how you would disable all buttons:

```
$("#button").prop("disabled", true);
```



## jQuery: Change Text Inside an Element Using jQuery

Using jQuery, you can change the text between the start and end tags of an element. You can even change HTML markup.

jQuery has a function called `.html()` that lets you add HTML tags and text within an element. Any content previously within the element will be completely replaced with the content you provide using this function.

Here's how you would rewrite and emphasize the text of our heading:

```
$("#h3").html("<em>jQuery Playground</em>");
```

jQuery also has a similar function called `.text()` that only alters text without adding tags. In other words, this function will not evaluate any HTML tags passed to it, but will instead treat it as the text you want to replace the existing content with.

## jQuery: Remove an Element Using jQuery

Now let's remove an HTML element from your page using jQuery.

jQuery has a function called `.remove()` that will remove an HTML element entirely

## jQuery: Use `appendTo` to Move Elements with jQuery

Now let's try moving elements from one div to another.

jQuery has a function called `appendTo()` that allows you to select HTML elements and append them to another element.

For example, if we wanted to move `target4` from our right well to our left well, we would use:

```
$("#target4").appendTo("#left-well");
```



## jQuery: Clone an Element Using jQuery

In addition to moving elements, you can also copy them from one place to another.

jQuery has a function called `clone()` that makes a copy of an element.

For example, if we wanted to copy `target2` from our `left-well` to our `right-well`, we would use:

```
$("#target2").clone().appendTo("#right-well");
```

Did you notice this involves sticking two jQuery functions together? This is called *function chaining* and it's a convenient way to get things done with jQuery

## jQuery: Target the Parent of an Element Using jQuery

Every HTML element has a parent element from which it inherits properties.

For example, your jQuery Playground `h3` element has the parent element of `<div class="container-fluid">`, which itself has the parent `body`.

jQuery has a function called `parent()` that allows you to access the parent of whichever element you've selected.

Here's an example of how you would use the `parent()` function if you wanted to give the parent element of the `left-well` element a background color of blue:

```
$("#left-well").parent().css("background-color", "blue")
```

## jQuery: Target the Children of an Element Using jQuery

When HTML elements are placed one level below another they are called *children* of that element. For example, the button elements in this challenge with the text `"#target1"`, `"#target2"`, and `"#target3"` are all children of the `<div class="well" id="left-well">` element.

jQuery has a function called `children()` that allows you to access the children of whichever element you've selected.

Here's an example of how you would use the `children()` function to give the children of your `left-well` element the color blue:

```
$("#left-well").children().css("color", "blue")
```

## jQuery: Target a Specific Child of an Element Using jQuery

You've seen why id attributes are so convenient for targeting with jQuery selectors. But you won't always have such neat ids to work with.

Fortunately, jQuery has some other tricks for targeting the right elements.

jQuery uses CSS Selectors to target elements. The `target:nth-child(n)` CSS selector allows you to select all the `nth` elements with the target class or element type.

Here's how you would give the third element in each well the bounce class:

```
$(".target:nth-child(3)").addClass("animated bounce");
```

## jQuery: Target Even Elements Using jQuery

You can also target elements based on their positions using `:odd` or `:even` selectors.

Note that jQuery is zero-indexed which means the first element in a selection has a position of 0. This can be a little confusing as, counter-intuitively, `:odd` selects the second element (position 1), fourth element (position 3), and so on.

Here's how you would target all the odd elements with class `target` and give them classes:

```
$(".target:odd").addClass("animated shake");
```

## jQuery: Use jQuery to Modify the Entire Page

We're done playing with our jQuery playground. Let's tear it down!

jQuery can target the body element as well.

Here's how we would make the entire body fade out: `$("body").addClass("animated fadeOut");`

