

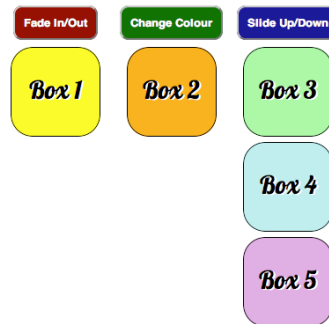
GRA 422 • CheatSheet

Tutorial 9 • JavaScript and jQuery

Tutorial 9

This tutorial shows how you can create interactivity using the JavaScript library known as [jQuery](#). The library provides us with a lot of functions that are used for effects, manipulation, and selecting items in the DOM.

Use the buttons below to invoke an action.



In this tutorial, we will be working with JavaScript and the jQuery library to create interactivity in an HTML document. Examples of interactivity include form validation, creating animations, and changing CSS.

jQuery simplifies the application of JavaScript by providing pre-coded functions. Instead of scripting all of the steps to select an element and make it do something, we can usually achieve this in a few lines of code using jQuery's functions.

To create an interaction using jQuery, think of a *sequence of events*—an *action* and the resulting *reaction*. For example:

1. The user moves the cursor to a button.
2. A click action on the button takes place.
3. An element on the page reacts by fading out.

Steps for Box 2

Step 1 • Link Style Sheet

Link your style sheet. There are two required, a Google font and our styles.css file.

```
<link href='styles.css' rel='stylesheet' type='text/css'>
```

Step 2 • Unique ID for Each Button

Create a unique and descriptive ID for each button. This will be used to select the buttons for interaction. Something like “button-fade” or “button-color” would work.

Step 3 • Create Custom Style to Change Colour

Create a custom style that will be applied to change the color.

```
#box.new-color {  
    background: lightblue;  
}
```

Step 4 • Link to jQuery

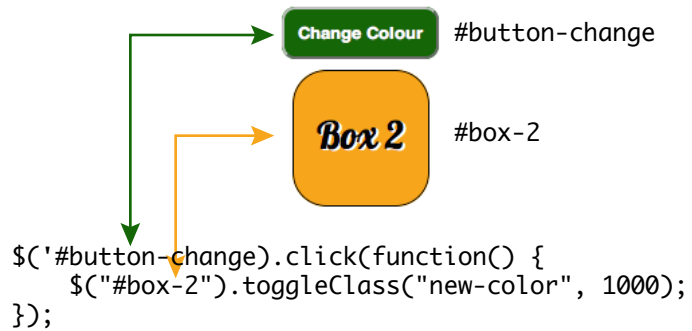
A link to the jQuery library needs to be inserted. It could be placed anywhere *before* your JavaScript code, but it is best to place this before the end of your `</body>` tag. This helps with page load times and there improves user-experience. Around line 49 in our tutorial is ideal for this (before the line of code starting with `$`).

```
<script type="text/javascript" src="https://code.jquery.com/jquery-2.1.3.min.js"></script>
```

Step 5 • Add Selectors to Code

Add your selectors to the JavaScript code:

```
$('#button-change').click(function() {  
    $('#box-2').toggleClass("new-color", 1000);  
});
```



Steps for Box 1

fadeToggle

Use the fadeToggle function to fade the box in and out.

```
$('#fade').click(function() {  
    $('#box-1').fadeToggle(1000);  
});
```

Steps for Boxes 3, 4, and 5

slideToggle

Use the slideToggle function to make the boxes slide up and down.

```
$('#slide').click(function() {  
    $('#box-3, #box-4, #box-5').slideToggle(1000);  
});
```

Steps for Box 6

animate

Use the animate function to move Box 6 down and up with the respective buttons. Animation can be done in the directions top, bottom, left, and right. The operators "+=" and "-=" mean add or subtract the specified value (215px) to the current value.

```
$('#down').click(function() {  
    $('#box-6').animate({  
        top: '+=215px'}, 1000);  
});
```

```
$('#up').click(function() {  
    $('#box-6').animate({  
        top: '-=215px'}, 1000);  
});
```