Introduction

JavaScript is an interactive scripting language that with HTML and CSS to change parts of a webpage. JQuery is a JavaScript library with many short-hand functions to do things in JavaScript. Together, they make snazzy, interactive web pages possible.

JavaScript Cheat Sheet: http://htmlcheatsheet.com/js/

JQuery Cheat Sheet: http://htmlcheatsheet.com/jquery/

Part 1. Setting up your webpage

Take one of your web pages from lab 6 (a webpage about you). We're going to add headers and sections using the HTML <div> tag. For example, you might have an "About" section with some basic details about you.

```
<div id="about">
<h1>About Me</h1>
Some details about me…
</div>
```

Now, let's add a button that we'll use to toggle showing the About section.

```
<button id="about_button">Show/Hide About</button>
<div id="about">
<h1>About Me</h1>
Some details about me…
</div>
```

By default, the button won't do anything we'll need to setup some JavaScript to make it work.

Part 2. Adding the JQuery library link.

In the <head> section of the web page, add a link to the JQuery library. It will look like this:

```
<script src="https://code.jquery.com/jquery-3.4.1.min.js"></script>
```

This loads the JQuery library into the JavaScript part of the web page when the page loads.

Part 3. Making the button work.

We can use the JQuery toggle function to hide or show an area. To refer to the div section with the id "about", we can use the JQuery variable $("#about"). Just like a CSS tag for an id, "#about" refers to any areas with an id "about".

```
<script>
$( "#about" ).toggle("slow");
</script>
```

This code will turn the about section on or off. Of course, it won't do anything by itself – we'll need to create an action that makes it work. We can do this with the click() function. We can add the click() function to the button with the id "#about_button"

```
<script>
$( "#about_button" ).click();
$( "#about" ).toggle("slow");
</script>
```
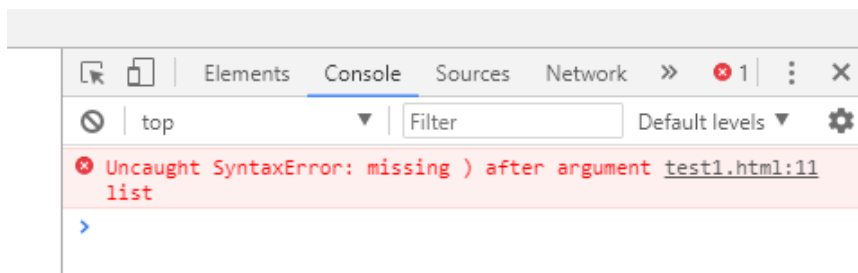
Save your web page, and reload it in a browser. You can run it locally on your computer using the file:/// URL.

Now let's make the click do something. We'll have it put up a popup alert that tells us that it ran. There is a JavaScript function called alert() which makes a popup message.

```
<script>
$( "#about_button" ).click( function() {
    alert("button pressed!");
});
$( "#about" ).toggle("slow");
</script>
```

Save the script and reload the web page. Press the button. Does it do anything? Probably not. Let's check for errors. In Chrome, Go to Developer Tools – on Windows, Ctrl + Shift + I at the same time. (Or go to Options and More Tools).

Do you see any error messages in red? You might see something like this:

This message means that there is an error in the JavaScript. Usually, it means that either there is a missing quote ", comma , , parenthesis () or bracket {}.

There is another reason why this javascript may not work – it may have run before the page was loaded. This is a weird JavaScript thing. To fix it, we have to encapsulate our code in a function that waits until the document has fully loaded. This is called the document ready function.

```
$(document).ready( function () {
   $( "#about_button" ).click( function() {
      alert("button pressed!");
   });
   $( "#about" ).toggle("slow");
})
```

Since we want out code to toggle whenever the button is pressed, let's move the toggle function into the click function. Let's also take out the alert() function.

```
$(document).ready( function () {
   $( "#about_button" ).click( function() {
      $( "#about" ).toggle("slow");
   });
})
```

Save your edits, and reload the web page. Does the About section toggle (showing and hiding) when you press the button?

Part 4. Make each part of your website have a toggle.

  ➢ For each section in your webpage, add a toggle button.
  ➢ Upload your webpage to your website as a new page.
  ➢ Submit the link to your new page to Blackboard.