**COMM644  
Assignment 8, Part 1**

**Practice with jQuery Events (5 points)**

In this part of the assignment you will practice working with jQuery events. Code the following within a new web page to successfully complete this part of the assignment:

1. Create a button on a web page. Use the .click() method to display an alert message to the user indicating that the button has been clicked when the button is actually clicked.
2. Create a button on a web page. Attach the click event using the .bind() method to display an alert message to the user indicating that the button has been clicked when the button is actually clicked.
3. Create a button on a web page. Attach the click event using the .on() method to display an alert message to the user indicating that the button has been clicked when the button is actually clicked.
4. Create two buttons on a web page. Attach the click event to both buttons using a single handler using the .on() method. Again, an alert message should be displayed to the user indicating that a button has been clicked when either of the buttons are actually clicked.
5. Create a div on a web page. Use jQuery to set the div element to 400px wide and 400px high. Attach the click, mouseenter, and mouseleave events using the .on() method. Display an alert message to the user indicating that the div was either clicked on, the mouse entered it, or the mouse left it.
6. Rewrite the code from number 5. This time add a span tag to the web page. Display three different messages within the span tag when the user enters the div, leaves the div, or clicks on the div.
7. Create a link within the web page and set its href attribute to browse to google.com. When the user clicks the link, first, prevent it from redirecting to that web site. Second, programmatically style the link so that its color changes to red. Third, display the name of the node that triggered the event within an alert box.
8. Create a div tag within the web page. As the user resizes the browser, display the width and height of the browser window within the div tag.
9. Create a text field using the <input> tag. When the input has focus, set the background to a light gray color. When the input does not have focus, reset the background back to a white color.
10. Add a form tag within a web page complete with 2 input fields: one that collects name and a second that collects an email. Add a submit button. When the user submits the form, if any one of the two fields is left empty, display an alert box to the user indicating that the fields are required. Give the field that the user left empty a red border. If both fields have values in them, set their borders to green.

**The Calculator III (5 points)**

In this part of the assignment you will practice working with jQuery events, styles, and DOM manipulation to create an even better version of the calculator that you created in previous assignments. In this part of the assignment you will use jQuery events to handle the interaction between the user and each button in the calculator. You will also use jQuery styling techniques to stylize all of the calculator buttons and the display. To complete this, follow the steps outlined below:

1. Notice the markup that I’ve included for you in the web page. There is a text box that will display the value of each button click and 16 different buttons each of which represents a major key on a basic calculator. Begin by referencing the jQuery library and then immediately wire up the jQuery .ready() function.
2. This first part will require you to stylize all of the buttons programmatically. Using jQuery make each button the same width and height, give each button a unique background color, border style, width and color. Also, give the display a unique background color, set the font color and size, and set a unique border style, width, and color.
3. Reference the “bubble capture” code from assignment 6. Rewrite this code so that it uses jQuery events and makes use of jQuery DOM manipulation techniques to set the display based on button selections made.