Advanced Web Development and Web Scraping
Spring 2020
Assignment #4 – Web Frameworks

Note: To receive credit for this assignment, show your instructor in class or e-mail the assignment (text file containing jQuery code for number 2, and HTML files for 3-4) to dancikg@easternct.edu with the Subject: CSC 301, HW #4.

1. The jQuery, and Bootstrap4 tutorials on w3schools are great references for learning more about these frameworks. However for this assignment the following tutorials are the most relevant (you do not need to show me the exercises for these):

    a. jQuery
         i. https://www.w3schools.com/jquery/jquery_selectors.asp
        ii. https://www.w3schools.com/jquery/jquery_css.asp
       iii. https://www.w3schools.com/jquery/jquery_dom_set.asp (top only)
        iv. https://www.w3schools.com/jquery/html_attr.asp

    b. Bootstrap4
         i. https://www.w3schools.com/bootstrap4/bootstrap_grid_basic.asp
        ii. https://www.w3schools.com/bootstrap4/bootstrap_buttons.asp

2. Specify the **jQuery** code that will do the following on the page below (Note: test your code by running it in the JavaScript console; your jQuery code will work because Wikipedia uses jQuery, so jQuery is loaded).

    https://en.wikipedia.org/wiki/Eastern_Connecticut_State_University

    a. Change the color of all links (all <a> elements) to red

    b. Add *onclick* events that will highlight a paragraph when the user clicks on it, by changing its background color to yellow. When the user clicks on one paragraph, change the background color of all other paragraphs to an empty string ("") to clear any other highlights.

       Note: jQuery has a useful *not* method for selecting elements. In particular, the following can be used to select all paragraphs that are *not* the current paragraph:

       ```
       $("p").not($(this))
       ```

       Optional: if the user clicks on a paragraph that is already highlighted, then clear the highlight.

3. Add **jQuery** statements to the *$(document).ready()* function in the *links.html* page to do the following:

   a. Change the color of the h1 header to red (or another color)

   b. When the mouse enters (*mouseenter* event) a link element (an <a> tag), the web address is displayed in the div with id = "url" and the display of this div is set to "block"; when the mouse moves away from the link (*mouseout* event), the div with "url" is hidden. Note that the *attr* method (https://www.w3schools.com/jquery/html_attr.asp) will need to be used to change the *href* attribute

4. Use **Bootstrap** and the appropriate *col-sm-** attributes to create a page with 3 rows that consist of 2, 3, and 1 columns (see screenshot below), by modifying the *buttons.html* file. All buttons have a "btn btn-danger" style. Use **jQuery** so that clicking on a button will change its style to "btn btn-success", and clicking the button again will change it back to "btn btn-danger". In order to do this, the following jQuery functions will be useful:

   a. hasClass("class") – returns *true* if the element has the specified class; otherwise returns *false*

   b. addClass("class") – adds the specified class to the element

   c. removeClass("class") – removes the specified class from the element

(after clicking on the middle button)

Click Me

Click Me

Click Me

Click Me

Click Me

Click Me