

**Advanced Web Development and Web Scraping**  
**Fall 2018**  
**Assignment #4 – Web Frameworks**

1. The jQuery, Bootstrap4, and AngularJS tutorials on w3schools are great references for learning more about these frameworks. However for this assignment the following tutorials are the most relevant:
  - a. jQuery
    - i. [https://www.w3schools.com/jquery/jquery\\_selectors.asp](https://www.w3schools.com/jquery/jquery_selectors.asp)
    - ii. [https://www.w3schools.com/jquery/jquery\\_css.asp](https://www.w3schools.com/jquery/jquery_css.asp)
    - iii. [https://www.w3schools.com/jquery/jquery\\_dom\\_set.asp](https://www.w3schools.com/jquery/jquery_dom_set.asp) (top only)
    - iv. [https://www.w3schools.com/jquery/html\\_attr.asp](https://www.w3schools.com/jquery/html_attr.asp)
  - b. Bootstrap4
    - i. [https://www.w3schools.com/bootstrap4/bootstrap\\_grid\\_basic.asp](https://www.w3schools.com/bootstrap4/bootstrap_grid_basic.asp)
    - ii. [https://www.w3schools.com/bootstrap4/bootstrap\\_buttons.asp](https://www.w3schools.com/bootstrap4/bootstrap_buttons.asp)
  - c. AngularJS
    - i. [https://www.w3schools.com/angular/angular\\_expressions.asp](https://www.w3schools.com/angular/angular_expressions.asp)
    - ii. [https://www.w3schools.com/angular/angular\\_directives.asp](https://www.w3schools.com/angular/angular_directives.asp)
    - iii. [https://www.w3schools.com/angular/angular\\_databinding.asp](https://www.w3schools.com/angular/angular_databinding.asp)
    - iv. [https://www.w3schools.com/angular/angular\\_controllers.asp](https://www.w3schools.com/angular/angular_controllers.asp)
2. 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 a link (*mouseout* event), the div with "url" is hidden. Note that the *attr* method ([https://www.w3schools.com/jquery/html\\_attr.asp](https://www.w3schools.com/jquery/html_attr.asp)) will need to be used to change the *href* attribute
3. 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 on next page). You may use the `buttons.html` file as a template. Each column contains a button with a "btn btn-danger" style. Using **jQuery**, clicking on the 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)



4. Use **AngularJS** display a table with your current course schedule, in the format below. In order to do this, use a controller to create an array of objects, where each object contains the course *name* (e.g., CSC 360) and *time* (e.g., MWF, 2:00 – 2:50). Your HTML code should include an appropriate *ng-repeat* directive that will create each row of the table.

#### Course schedule for Garrett Dancik

Course	Time
CSC-315-01	MWF, 11:00-11:50
CSC-450-02	MWF, 1:00-1:50
CSC-360-05	MWF, 2:00-2:50
CSC-450-01	MW, 4:00-5:15