

**Advanced Web Development and Web Scraping**  
**Fall 2018**  
**Assignment #8 – Selenium Assignment**

1. Using Selenium, search for a movie on IMDB (<https://www.imdb.com/>). “Click” on the first result to go to the movie’s page. Then extract its title (including the year) and its rating, and print out the results in the form *Ghostbusters (1984) has a rating of 7.8*. Note: sleep for 2 seconds after searching for the movie, and sleep for 1 second after clicking on the first result (this will help ensure that the page is fully loaded before continuing)
2. Complete the Number Cruncher web page and the Selenium unit testing script by following the instructions below:
  - a. For the Number Cruncher web page,
    - i. Clicking on “Add Numbers” calculates the sum of the numbers and displays the answer in *green* the form *The sum of the numbers is 10*
    - ii. Clicking on “Find max” finds the maximum value and displays the answer in *blue* in the form *The maximum value is 3*
    - iii. If the input is invalid, the error message is displayed in *red*.
  - b. For unit testing, complete the script to test that all buttons work correctly for valid and invalid numbers

Hint #1: In Javascript, the following statement finds the maximum value of an array *arr*: `Math.max(...arr)`

Hint #1: In Selenium, the preferred way to get the style (CSS value) of an *element* is to use, .e.g. `element.value_of_css_property('color')`. This returns the computed value, which for colors is in an *rgb* format. In some cases you could use `element.get_attribute('style')` but this returns only the *inline style* of the element. You can find *rgb* color codes at the following website (search for “List of common”):  
<https://htmlcolorcodes.com/>