Announcements

* Lab 4 and Project 3 are due Friday, 2/5.
* Next week’s topic is debugging, Ch. 10 in the textbook.
* The midterm will be given 2/8 (Monday of week 6).
  + Will cover topics from weeks 1 through 5. Only topics on the lecture notes will be on the exam.
  + We will review on Friday of next week. There will be a practice midterm available on Canvas.

Review

* Functions need to be defined before (above) the code that uses them.
* Alerts can be used for debugging (to see if a section of code was reached (executed).
* JS Functions and statements can be tested in the console to see if they produce the right results. Results can be shown in the console or on a web page (if the code accesses HTML elements on the page).
* Use the “divide and conquer” approach to narrow down the section of code that contains an error.
* Using JS with HTML forms is explained in Ch. 8 of the textbook.

Getting input and displaying output on a web page

* Responding to Events
  + Add an event handler to a control with addEventListener(“someEvent”, someFunction)
* Getting Input
  + In HTML: <input type = “text” id="name">
  + Get a reference to the input element in JavaScript:   
    var nameTextBox = document.getElementById(“name”);
  + Read the value: var theName = nameTextBox.value;
* Displaying output
  + Assume we have a paragraph in our web page: <p id=”studentName”></p>
  + Access HTML elements in JavaScript using *getElementById*:   
    var nameParagraph = document.getElementById(“studentName”);
  + Set the value of an element:  
     nameParagraph.innerHTML = “Susan”;
* How to run your code when the page loads
  + The browser reads the web page from top to bottom. JS script that is in a file linked at the top won’t see HTML that is below it.
  + Solution 1: put the link to the script at the bottom of the page
  + Solution 2: use a button to launch the script’s “main” (or whatever you called it) function
  + Solution 3: use <body onload=”someFunction()”>

jsHint

* Website: <http://jshint.com>)
  + Package for Atom: <https://atom.io/packages/jshint>
  + Package for Sublime Text: <https://packagecontrol.io/packages/JSHint>
* jsHint is a “linter” – a tool that identifies suspicious syntax. <https://en.wikipedia.org/wiki/Lint_(software>)