Review

* Web pages can have a form element that contains control elements. Control elements are things like buttons, text boxes, selection lists and other elements that get input from a user.
* The JavaScript function getElementById provides your JavaScript code with a way to interact with elements on a web page. They can be any kind of elements (<p>, <div>, <span>, <h1>, <input>, etc.)
* In order for your JavaScript code to respond to user input, you need to have a function that is tied to an event on the HTML page. Example: button.addEventListener(“click”, someFunction);
* A JavaScript file that is linked in the head section runs before the rest of the page is read by the browser.

Getting input and displaying output on a web page

* Responding to Events
  + Look at the Rainbow page
* 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 page from top to bottom- JS code that starts running 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>)
* Example: writing an isPrime function in JavaScript

Conclusion

* Lab 4 and Project 3 instructions are on Canvas
* The midterm will be week 6. We will review next week.