**Overview**

The objective of this lab is to give you practice using:

* Creating an array
* Adding values to an array
* Getting values from an array
* Calling array methods to do special operations on the array

**Part 1: Array Exercises**

A web page, *ArrayExercises.html*, has been written for you that contains code to call functions that you will write in a file named *ArrayExercises.js*. The instructions for writing your functions and the code to test your functions are *ArrayExercises.html*, but all the code you write will go in *ArrayExercises.js.*

**Part 2: Web Apps**

Web App I for Group A – Roman Numeral Converter

Write a function named *romanToDecimal* that will convert a Roman numeral to a decimal number.

The function will:

* Have one parameter, a Roman Numeral.
* Return one value, a decimal number.
* Work for Roman numerals I through X.
* Use an array containing hard-coded values and a loop to convert the Roman numeral to a decimal number.

Web App II for Group A – Grade Book

This web app displays a list of students and allows an instructor to add names to the list and enter grades.

Implementation:

1. Declare two one-dimensional arrays:
   1. students
   2. grades
2. Write two functions:
   1. *addStudent*, this function:
      1. Has two parameters: list number, name.
      2. Returns true if the line number was in range.
      3. Use the split method.
   2. *addGrade*, this function:
      1. Has two parameters: student’s name, grade.
      2. Returns true if the student ‘s name was found.
      3. Use the indexOf method.

Web App IIII for Group A – TBD

**Submitting your lab work on Moodle**

Beta Version

Post the following in the *Lab Beta forum*:

1. The web pages you created for part 2.  
   (Zip the files for you web pages and attach them to the post.)
2. A code review of your lab partner’s web page for part 2.   
   (Review one of your lab partners’ web pages using the Code Review Form provided.)

Code Review

1. Submit a copy of the code review above to the *Lab Code Review assignment*.

Production Version  
Based on the review and helpful advice from your lab partner, you may revise your web page. On the code review from your lab partner, complete the “Production” column to show what you revised. Upload the following to the *Lab Production Version* assignment:

1. A Word document containing all the code you ran for part 1.
2. The web pages you created for part 2.
3. The code review from your lab partner with the “Prod” column filled in by you.