

# Array Lab

Create a new project named `array_lab` with a new class named `ArrayLab`. Your main method should call each method you write below.

Make sure you use comments and correct java conventions.

1. Write a method named `printIntArray` that has an integer array as a parameter. Write a loop that will print each element in the array from 0 to the array length. Before you return, add a print line so that it goes to the next line. **Do not call this method in main (it's used for later lab questions).**
2. Write a method named `printStringArray` that has a String array as a parameter. Write a loop that will print each element in the array from 0 to the array length. Before you return, add a print line so that it goes to the next line. **Do not call this method in main (it's used for later lab questions).**
3. Write a method named `randomArray` that creates an integer array of size 10 with random numbers between 1 and 100. Before you return from the method, call `printIntArray()` with your array as the parameter so you can verify that it worked.
4. Write a method named `familyArray` that stores a String array of every member of your family. Before you return from the method, call `printStringArray()` with your array as the parameter so you can verify that it worked.
5. Write a method named `consoleArray` that reads in 10 numbers from the console and saves each number in an array (make sure you put a message on the console so the user knows they need to input a number). After reading all the numbers and storing them into an array, call `printIntArray()` with your array as the parameter so you can verify that it worked.
6. Write a method named `multiplySumArray` that returns an integer and has an integer as parameter. Create an array of size 10 that has each element contain that integer parameter. Traverse through the list and multiply each element by the iterator. Write another for loop that gets the sum of all the elements in the array. Return the sum of all the elements and print it in main.
7. Write a method named `upperCase` that takes 5 String inputs from the console. Put each input into a String array. Convert each element in the array to be in all upper case. Before you return from the method, call `printStringArray()` with your array as the parameter so you can verify that it worked.
8. Write a method named `findMe` which stores 100 random integer numbers between 1 and 15. Read a number from the console, traverse the array and print out the element position that it is first found (so if the element found is located at position 30 in the array, it will print out 30) and return immediately (if in loop). If the number is not found after traversing the whole list, print "not found"

9. Write a method named "fourInARow" that returns boolean. Declare an array of 8 characters (made up of only using 'x' and 'o'). Return true if there are 4 x's in the row.
10. Write a method named "greaterThanFive" that returns boolean and has an integer array named data as a parameter. Traverse through the array and return true if all the numbers in the array are greater than 5. You can test this by creating an array in main and passing it into the method.