# Array Exercises

Note: Provide documentation for each void type (procedure) method.

**Level 1 – Due Feb 10th by the end of class – submit by Feb 13**

Create a menu driven mainline that will run any void type (procedure) method described below.

Save as ***Array1.java. For all the methods, you are to pass the array as a parameter.***

1. Declare an array to hold 10 integers.
2. Write a void void type (procedure) method called ***InitializeArray (array)*** which will assign the value -1 to every element of the array.
3. Add a void type (procedure) method called ***EnterFromKeyboard***which will enter UP TO 10 integers and store them in the array.
4. Add a void type (procedure) method called ***CountWh*ole**which will calculate and display the number of whole numbers entered into the array. (Positive integer values
5. Add a void type (procedure) method called ***Display*** which will display the list of inputted integers in the order entered. e.g. The integers in order entered is 8 12 32 43 14 12.
6. Add a void type (procedure) method called ***DisplayReverse*** which will display the list of inputted integers in reverse order entered. e.g. The integers in reverse order is 12 14 43 32 12 8.
7. Add a return type (function) method called ***Sum*** that will calculate and return the sum.
8. Add a void type (procedure) method called ***Average*** that will calculate and display the average of all the numbers entered correct to 1 decimal place.
9. Add a function method called ***FindMax ( )*** and ***FindMin ( )*** which will calculate and return the maximum number and the minimum number stored in the array respectively.
10. Add a void type (procedure) method called ***Search***that will display the position(s) in the array a specific number occupies. e.g. The number 12 is found in the following positions: 2, 5
11. Provide a menu and add a loop so that the user can make other choices from the menu do all the options such as findMax/Min, Sum from the menu.
12. Add a method called Sort (int [ ] List), that would sort the entered numbers in ascending order using the bubble sort method.
13. Add a method called ImprovedBubbleSort(int [ ] List), that would sort the entered numbers in ascending order.
14. Extension: Write a method that outputs the Mean, Median and Mode of the data.

Save all exercises to your H drive. When done, submit your programs on the moodle.