The program I have decided to use for this assignment is a Merge Sort that I had created for a class at LBCC. This program has two classes. sortMain(), which just acts as a driver for the other class. It also has sortBody(), which contains all the methods, and data interaction.

In order of usage, sortMain is exclusively used to make a call to the run method in sortBody, run then calls on runSort. runSort is the collector for running all the other methods in their specified sequence to sort the array using merge sort. These are all the methods that do not have more complicated logic than just pointing to other methods.

displayArray() is a method that when called will print out the current array, this is used for confirmation of position every step through the merge sort process, and is just an iterative for loop to move to the next position within the array, and print. displayTempArray() does this same method, but was for testing purposes while creating the project, it is not used and possibly should be removed

the method LowestLevel() gets to the bottom level of the merge sort, and compares values in position 0,2,4,6 with the value that immediately comes after, and sorts them where the smaller number will be on the left, and the larger will be on the right. It uses an if statement to compare the values and determine where the value should reside.

The MiddleLevel() method now has the array in two parts, the first half, and the second half. It uses a for method to go through the two separate halves, and a for method to decide what position a value should have within that segment of the array.

The HighLevel() method is a simple array sort to be used after all the other situations are exhausted, it will just compare and bubble values to their intended positions.

The merge() method is used to take the values in the tempArray, and merge them with the main MyArray to set MyArray to the new standard to be displayed to the user.