**CS242 - Sort Lab 1**

Implement each of following sorts. You may use the Sedgewick code as a guide, but you must improve it with good variable names and comments. Your comments must show that you know what you are doing.

* + Selection sort – implement the basic selection sort.
  + Insertion sort – implement the improved insertion sort (with sentinel, moving rather than swapping)
  + Quicksort – implement the simple Quicksort. Do not use insertion sort for small partitions.
  + Quicksort – implement Quicksort, switching to insertion sort when the number of elements is less than 10.
  + Quicksort with Median of Three improvements.
  + Quicksort with the “Dutch National Flag” algorithm.
  + Merge Sort
  + Heap Sort
  + MSD Radix Sort

Test/Time each of your sorts to complete the table at <https://faculty.lynchburg.edu/ribler_r/cs242/lab1SortPerformanceData.xlsx>