**CS242 - Sort Lab 3**

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. You should use the function provided in extractBits.h (<https://faculty.lynchburg.edu/ribler_r/cs242/extractBits.h> to extract bits from the data keys.

* Binary Quicksort Sort – use the Binary Quicksort for the first m bits, then use insertion sort. See if you can find a good value for m.
  + void binaryQuicksort(Type\* startOfArray, Type\* endOfArray);
* MSD Radix Sort – use MSD Radix Sort for the first k iterations, then use insertion sort. See if you can find a good value for k.
  + - Use a temporary array to store the radix sorted values partitioned using the key-indexed counting method from Chapter 6.
  + void msdRadixSort(Type\* startOfArray, Type\* endOfArray);

Test/Time each of your sorts to complete the table at <https://faculty.lynchburg.edu/ribler_r/cs242/lab3SortPerformanceData.xlsx>