CS303 Algorithms and Data Structures
Written Assignment #1

1. Write the pseudo code for each of the following sorting algorithms:
   • Bubble sort
   • Insertion sort
   • Merge sort
   • Quick sort
   • Bucket sort

2. Describe each of the above algorithms in your own words. Demonstrate that you understand what they're doing.

3. What is the average, best and worst case time complexity of each?

4. Say you operate a large-scale website that provides a service that does on-demand sorting of user-provided data. Is there any risk in publishing (to the general public) the algorithm you use for sorting?