CSE 373: Written Assignment

Sorting and Graphs

Out: November 29th, 2017

Due: December 6th, 2017, 11:30 pm

No Late Days

1 Quicksort

Show the Quicksort algorithm for the following data set. Use the first element as the pivot. When performing the partition, show the sub-array after each swap. If a sub-array is size 3 or less, you may just sort the elements without showing work.

[3,5,1,7,9,2,6,4,8]

[1,2] 3   [5, 7, 9, 6,4,8].

                  [4]   5   [7, 9, 6, 8]

                            [6]   7   [9, 8]
                                          ↓
                                        [8, 9]

                        [6, 7, 8, 9]

              [4, 5, 6, 7, 8, 9]

[1, 2, 3, 4, 5, 6, 7, 8, 9]