CSCI 421 Design and Analysis of Algorithms Spring 2020

Lecture 2 Activity 1

**Compare Selection Sort, Insertion Sort, and Shell Sort**

Implement and then compare the three sorting algorithms above. The pseudo code is shown in the slides. You need to run the algorithms against large-size random arrays, say N=1000, 2000, 4000, 8000, 16000. The values are uniformly distributed between –M and M, where M is not small. For instance, M could be 3000. You need to find the running time of all the algorithms aforementioned. Generate a table and a standard plot as shown in Lecture 1 slide 16 and 17, respectively. Attach your code and the screenshots of your output here.