CSCI 321 Computer Science III Summer 2019

Assignment 1

1. Perform an experimental analysis of the two algorithms prefixAverage1 and prefixAverage2. Visualize their running times as a function of the input size with a chart.

Hint:

1. You need to pick several input sizes and run at least 5 tests (random array) on each input size to have an accurate estimate on the running time.
2. You might need to use large array size, say 1000, 5000, 10000 in order to see the performance difference between the two algorithms.

The runtime of PrefixAvg1 is about 10 times slower than the runtime of PrefixAvg2.

PrefixAvg2 runs at about a tenth (1/10) of the time it takes for PrefixAvg1 to run. See screenshots and code for PrefixAverage.java, PrefixAvg2.java.