Assignment 1 Data

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Java | | C++ | |
|  | 1 – 10,000 | 1 – 50 | 1 – 10,000 | 1 – 50 |
| Counting Sort | 4,839us | 4,117us | 7,505us | 10,114us |
| Quick Sort | 10,572us | 36,825us | 11,198,882us | 11,630,568 |

I got some strange results for the sort benchmarks. I was surprised to see that Java was able to run the sorts faster although, I did write the sorts myself so there may be an implementation difference that is causing this. Another thing that I found strange is that with Java, the runs using values ranging from 1 – 50 ran faster however with C++, the runs using values 1 – 10,000 ran faster. This could be because I took multiple samples of each program. Finally, there appears to be something strange about Quick Sort on C++. I don’t know why it took so incredibly long on C++. As far as I can tell my C++ and Java Quick Sorts are essentially the same yet got such wildly different runtime results.