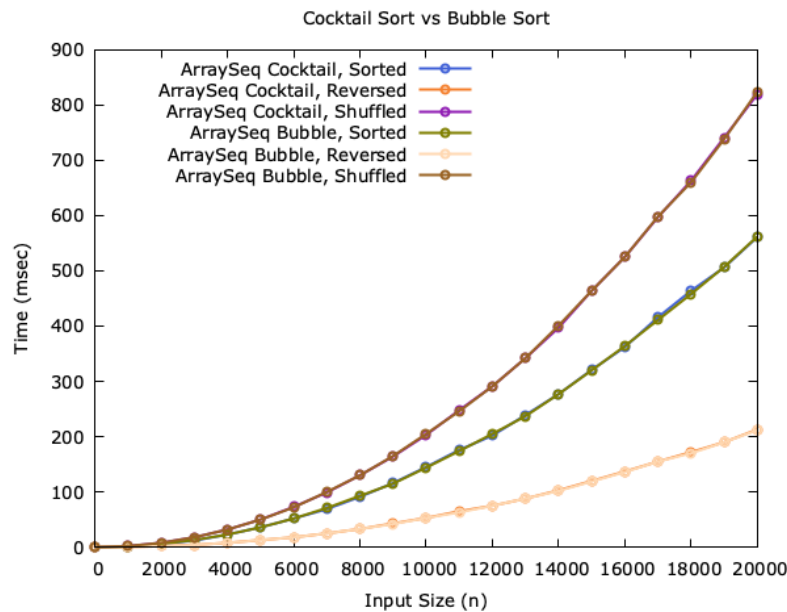NAME: Ben Puryear

FILE: HW-9_WriteUp.pdf

DATE: Fall 2021

DESC: This pdf goes over the basics accomplished throughout all the HW-9 related files.

Graphs / Explanations:

This first graph shows the performance of Cocktail Shake sort. For fun I compared this with bubble sort since how similar they are. The main takeaway from cocktail shake sort is how similar it is to bubble sort. The graph looks like it's for a single sort, with 3 different cases, but those are actually two points for each case. One thing that stuck out was how efficient bubble sort was when it was reversed, specifically how sorted cocktail/bubble was the middle performing scenario. Because of this I believe there might be some issues with how I exported the graph or performance metrics.

Quick Sort Random Pivot Performance
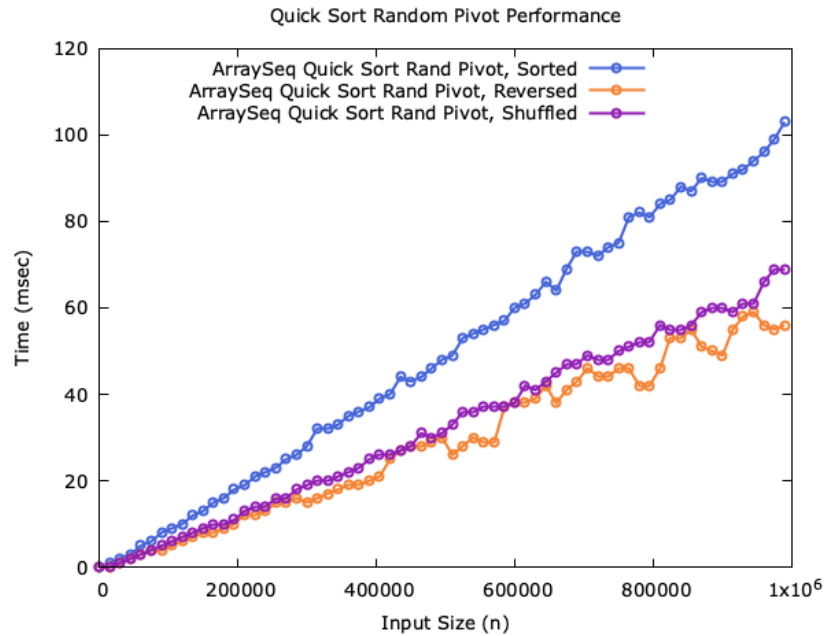
This next and final graph of the semester is by far my favorite. The first thing I will point out is the x-axis ticks. This took around 10 seconds on my laptop, and when being compared to our original implementation of quicksort, outperformed it by a mile. One thing that I noticed was that the sorted quicksort is the slowest with the reversed being the fasted. Similarly to the previous graph, there might have been an issue exporting statistics or the graph so that could be user error.

Issues I faced:

I ran out of time in my flight to finish library sort, but I got far with having access to nothing but the c++ library sort page.