Assignment #4

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A screenshot of a map

Description automatically generated

**Gnuplot:**

set xlabel "Array size"

set ylabel "Microseconds"

set yrange[0:40000]

set key right top

set key box

set key spacing 1.5

plot "LiuF\_4.dat" using 1:2 with lines lw 2 lc "red" title “non-priority”, "1.dat" using 1:6 with lines lw 2 lc "pink" title “max-priority”, "1.dat" using 1:10 with lines lw 2 lc "blue" title “min-priority”

**The output of my code(same as the file LiuF\_4.dat):**

A screenshot of text

Description automatically generated

**My observation from data and from the plots:**

Average queueing time of array B is the least. And when the elements number is the maxium, the waiting time of 3 arrays almost same. So do the job in the order of max-priority is the most efficient.

From the data and the plot, quick sorting is really an excellent algorithm.