

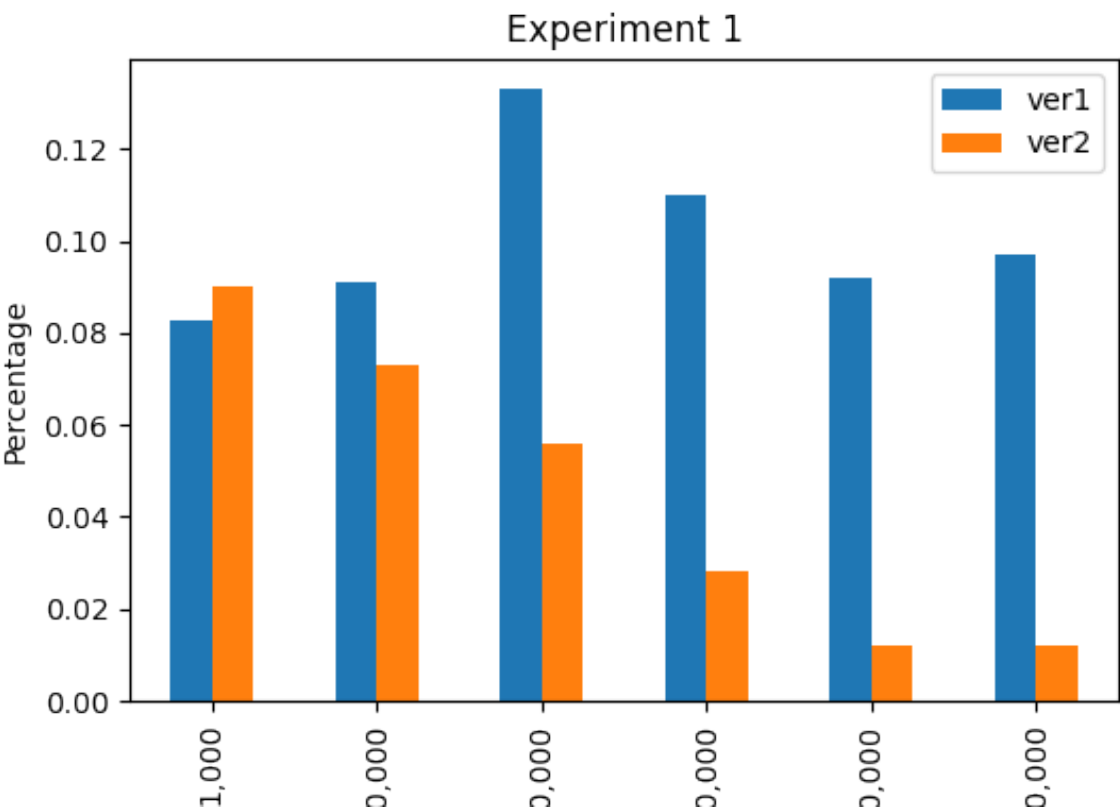
Multicore Lab1

Experiment 1

The number of bin : 20

The number of thread : 10

The bar graph is shown as follows:

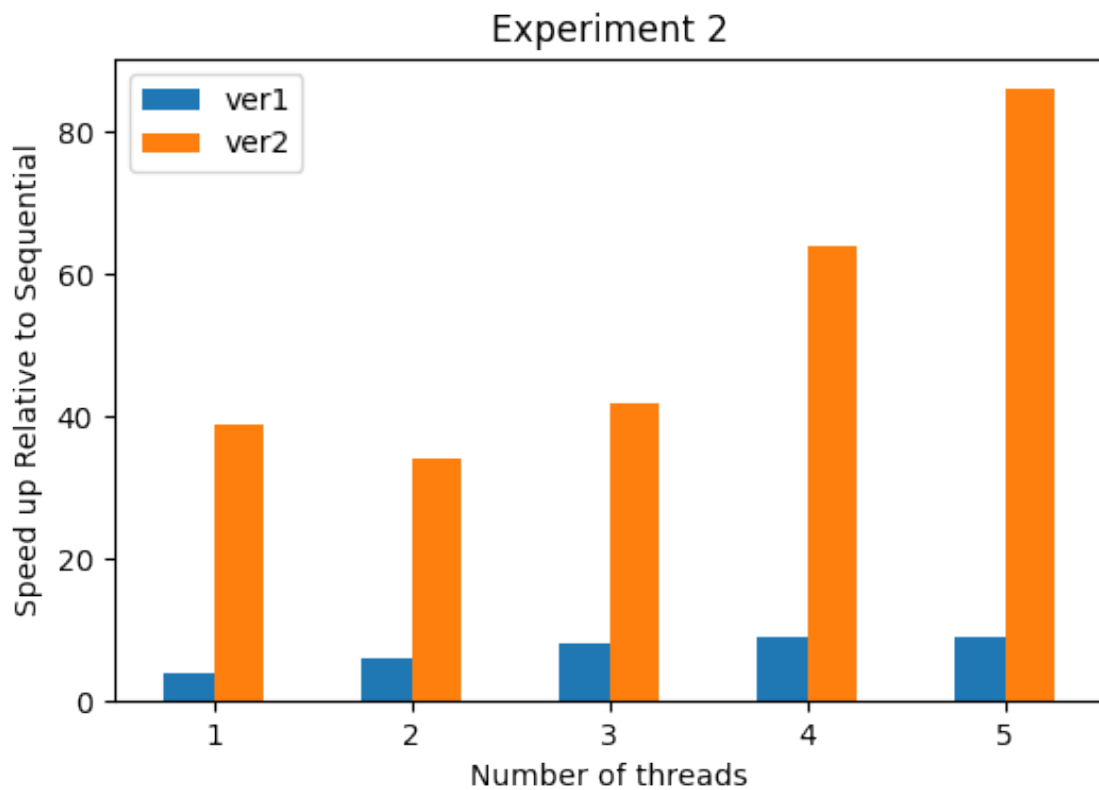


Experiment 2

The number of bin: 50

The input size: 1,000,000

The bar graph is shown as follows:



Experiment 3

Number of Bins: 20

	1,000	10,000	100,000	1,000,000	10,000,000
1	1	1	1	1	1
2	0.16	0.43	0.63	0.69	0.51
3	0.06	0.28	0.50	0.58	0.34
4	0.03	0.13	0.34	0.53	0.34
5	0.01	0.10	0.20	0.33	0.35

Analysis

1. For version1, the fraction of parallel part remains the same when the problem size increase, however, the parallel part of version2 will converge to a fixed part of fraction.
2. Overall, the speedup increases as the number of threads increases.
3. I don't get what I expect in this graph, their efficiency is not increasing all the time.

This is the end of lab1.