

COP290 Lab 2 Part 3

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System Specifications

Memory - 12GB

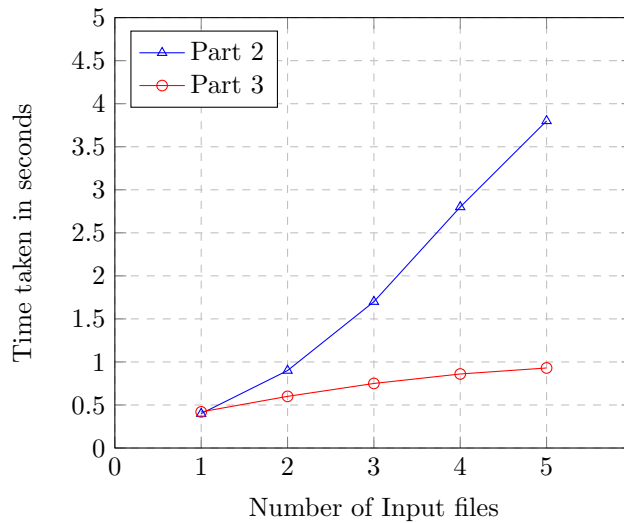
Processor - Ryzen 7 5800H @3.2GHz (8-core, 16 threads)

OS - Ubuntu 22.04 LTS

1 Number of files vs time(s)

In multithreading, more files are distributed across multiple threads and hence it takes considerably less time

1.1 Graph

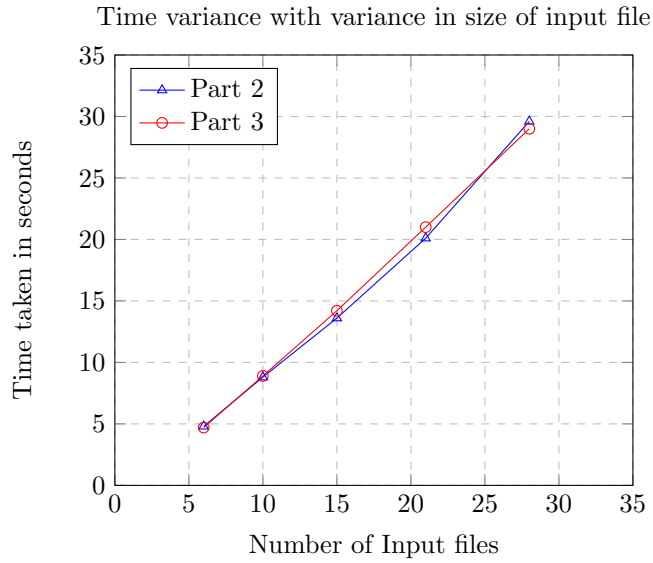


1.2 Table for above data

Number of Files	Part 2(s)	Part 3(s)
1	0.4	0.42
2	0.9	0.6
3	1.7	0.75
4	2.8	0.86
5	3.8	0.93

2 Size of files(in MB) vs time(s)

2.1 Graph



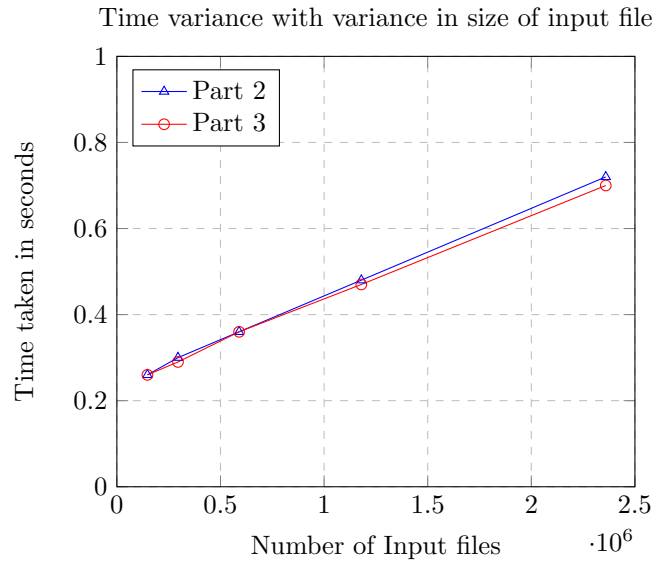
2.2 Table

Size of Files	Part 2(s)	Part 3(s)
6	4.8	4.7
10	8.8	8.9
15	13.6	14.2
21	20.1	21
28	29.6	29

3 Taking one word repeated many times

One word - 'banana' has been repeatedly written in the files, such that their sizes are 1,2,4,8,16 megabytes respectively

3.1 Graph



3.2 Table

Frequency	Part 2(s)	Part 3(s)
147456	0.26	0.26
294912	0.3	0.29
589824	0.36	0.36
1179648	0.48	0.47
2359296	0.72	0.7

4 Tokens

Name	Tokens
Tript	10
Mani	10
Utkarsh	10