

# COP290 Lab 2 Part 3

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## System Specifications

Memory - 12GB

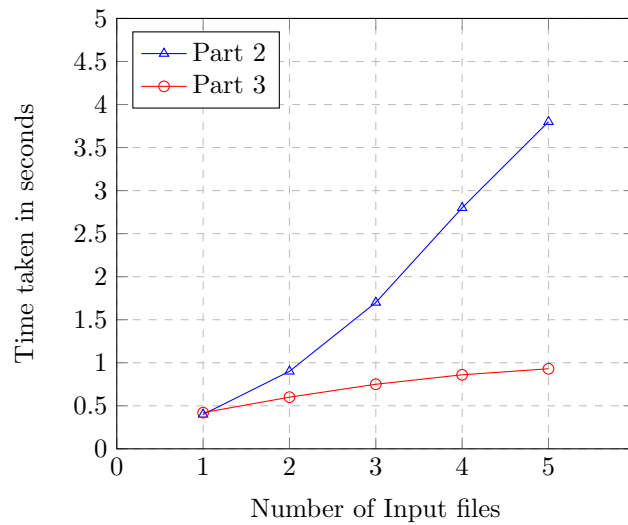
Processor - Ryzen 7 5800H @3.2GHz (8-core, 16 threads)

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

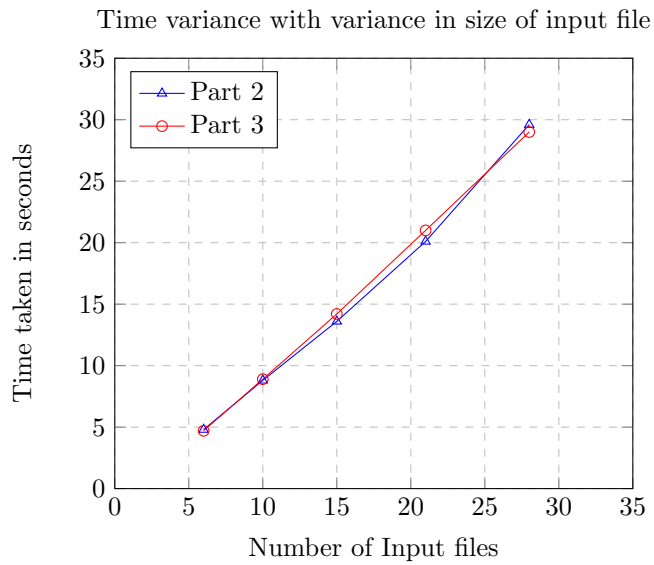


## 1.2 Table for above data

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



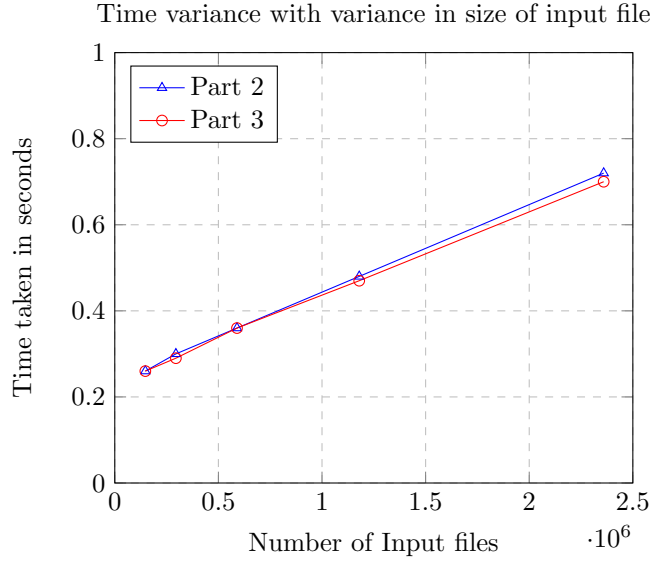
### 2.2 Table

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