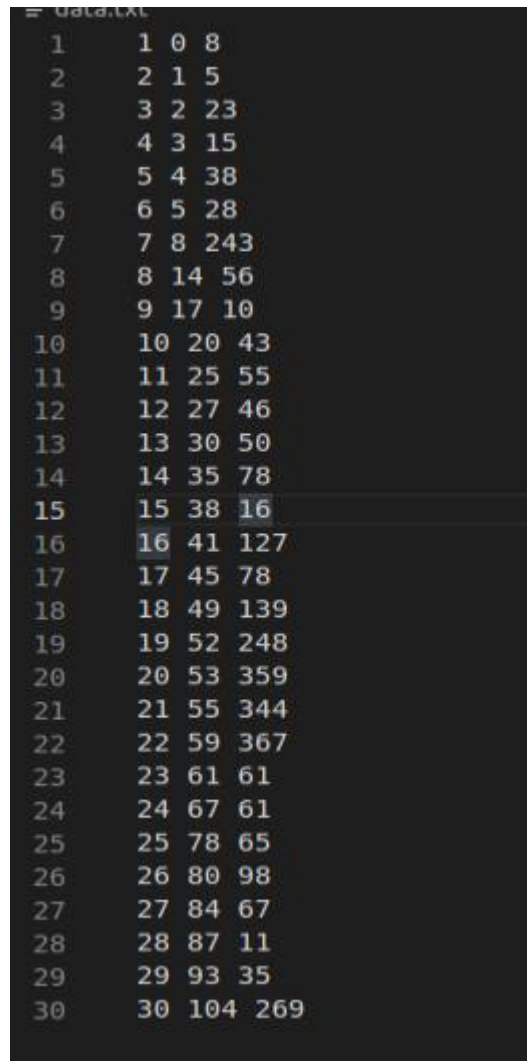


Bora Fatih KAZANCI – 21801753 – CS

Yusuf Mert YILDIRIM – 21802848 – CS

## CS342 Project 2 – Report

For the project, we have created a file data which has valid numbers of inputs defined by the project manual. Results and graphs will be dependent on this fixed created file, and it has 30 bursts. File data.txt:



1	1	0	8
2	2	1	5
3	3	2	23
4	4	3	15
5	5	4	38
6	6	5	28
7	7	8	243
8	8	14	56
9	9	17	10
10	10	20	43
11	11	25	55
12	12	27	46
13	13	30	50
14	14	35	78
15	15	38	16
16	16	41	127
17	17	45	78
18	18	49	139
19	19	52	248
20	20	53	359
21	21	55	344
22	22	59	367
23	23	61	61
24	24	67	61
25	25	78	65
26	26	80	98
27	27	84	67
28	28	87	11
29	29	93	35
30	30	104	269

By using this input file, we have conducted 3 experiments with different quantum values. Quantum values will only affect Round-Robin algorithm.

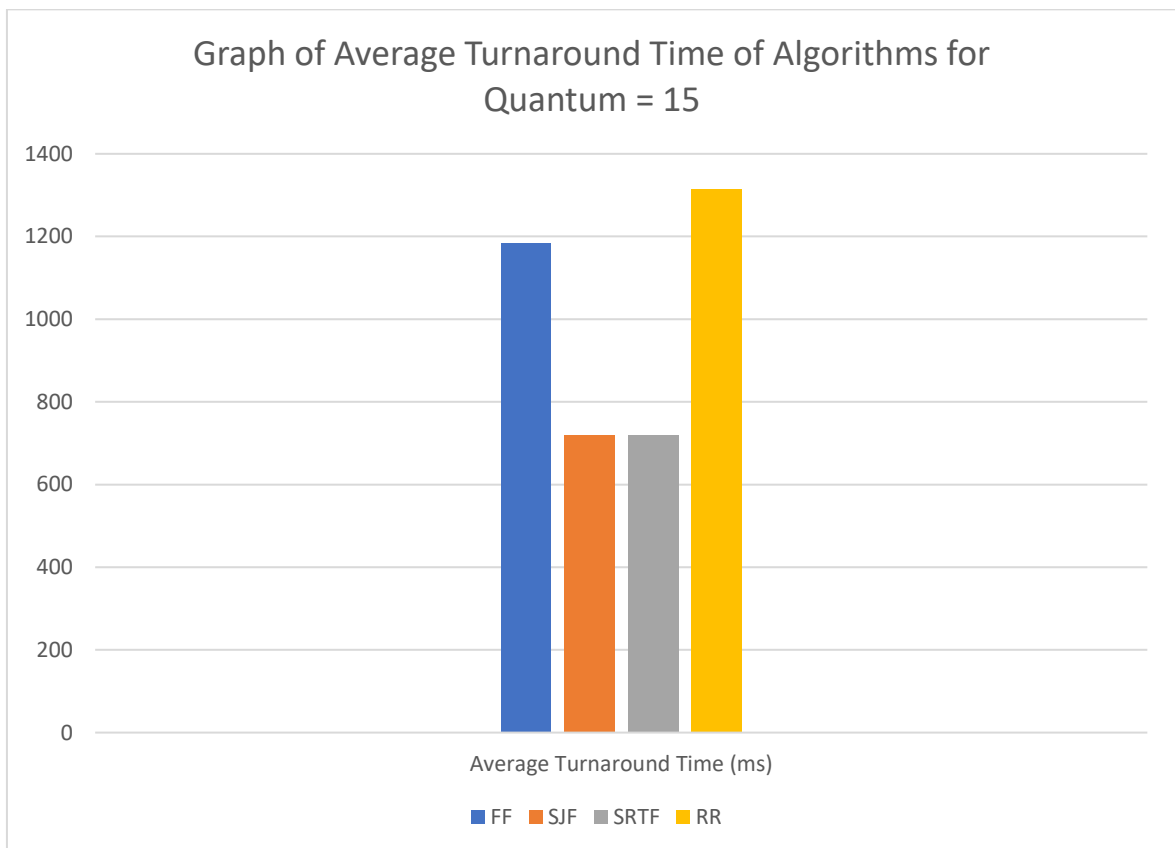
1. Quantum value = 15

The output of the run with quantum = 15:

```
quantum: 15

Average Turnaround Times of Algorithms:

FCFS => Avg Turnaround Time: 1183
SJF => Avg Turnaround Time: 720
SRTF => Avg Turnaround Time: 720
RR => Avg Turnaround Time: 1315
```



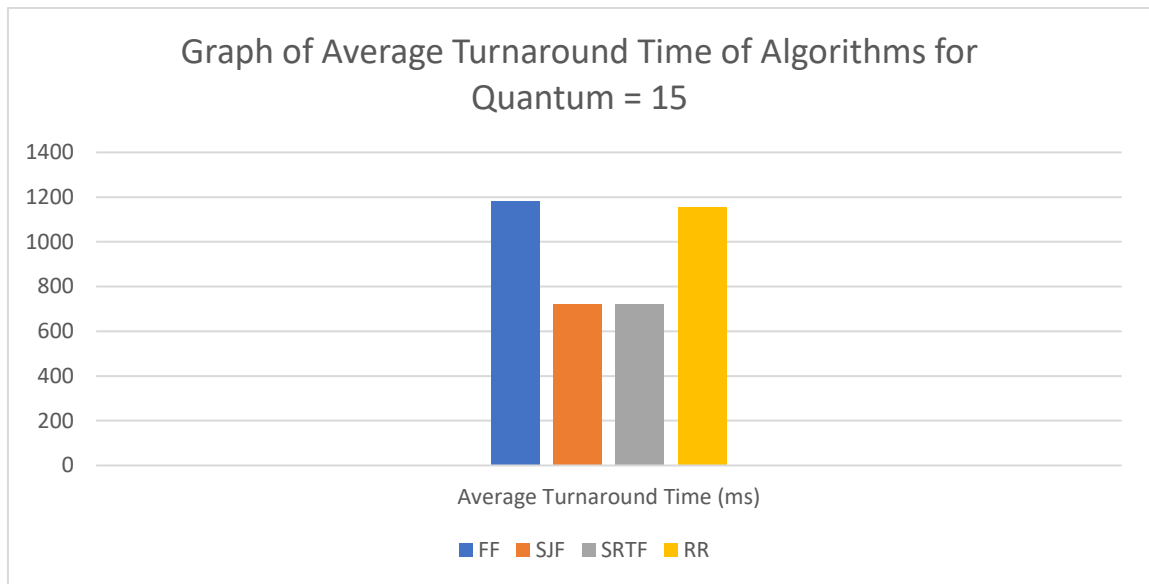
2. Quantum value = 72

The output of the run with quantum = 72:

```
quantum: 72

Average Turnaround Times of Algorithms:

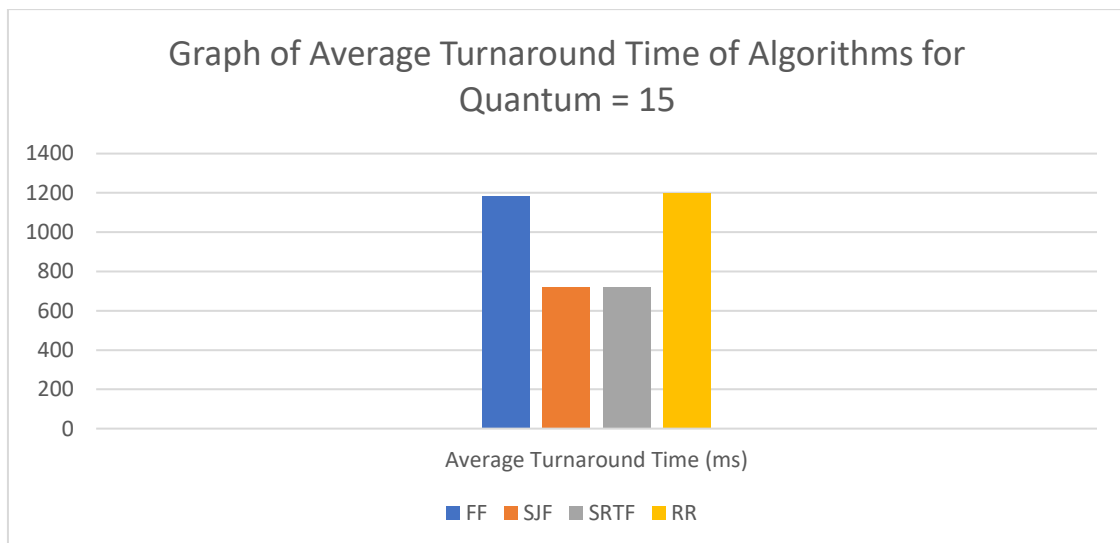
FCFS => Avg Turnaround Time: 1183
SJF => Avg Turnaround Time: 720
SRTF => Avg Turnaround Time: 720
RR => Avg Turnaround Time: 1154
```



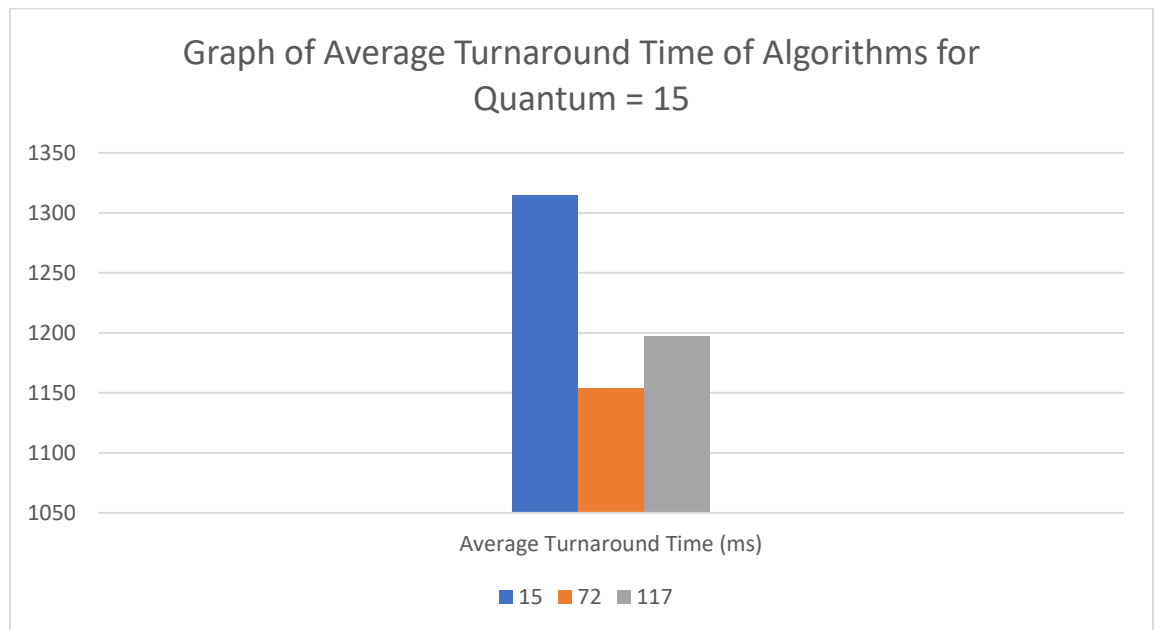
3. Quantum value = 117

The output of the run with quantum = 117:

```
quantum: 117  
  
Average Turnaround Times of Algorithms:  
  
FCFS => Avg Turnaround Time: 1183  
SJF => Avg Turnaround Time: 720  
SRTF => Avg Turnaround Time: 720  
RR => Avg Turnaround Time: 1197
```



Graph of the Avg. Turnaround times of round-robin algorithm in these 3 experiments:



To sum up, for the input file data.txt in all experiments, average turnaround times of FCFS is 1183ms, SJF is 720ms, SRTF is also 720ms and RR, which is changing with experiments because quantum values are different. It can be observed that, in RR algorithms, quantum value and burst lengths in data set have a relation because quantum value works in that way.