ANALYSIS OF OUR ALGORITHMS WITH DATA SETS

DATA-1

PROCESS	ARRIVAL TIME	BURST TIME
P1	0	8
P2	0	9
P3	0	10
P4	0	6

TIME QUANTUM=3

NRR OUTPUT

Enter Total Number of Processes:

[
Enter Details of Process[1]
[Arrival Time: 0
Burst Time: 8

Enter Details of Process[2]
Arrival Time: 0
Burst Time: 9

Enter Details of Process[3]
Arrival Time: 0
Burst Time: 10

Enter Details of Process[4]
Arrival Time: 0

Enter Time Quantum: 3

Burst Time:

Burst Time Waiting Time Process ID Turnaround Time Process[4] 24 18 Process[1] 8 26 18 Process[2] 9 29 20 Process[3] 10 33 23

Average Waiting Time: 19.750000 Avg Turnaround Time: 28.000000

RR-1 OUTPUT

Enter Total Number of Processes:	4
Enter Details of Process[1] [Arrival Time: 0 Burst Time: 8	
Enter Details of Process[2]	
Arrival Time: 0	
Burst Time: 9	
Enter Details of Process[3] Arrival Time: 0 Burst Time: 10	
Enter Details of Process[4]	
Arrival Time: 0	
Burst Time: 6	
Enter Time Quantum: 3	

Process ID	Burst Time	Turnaround Time	Waiting Time
Process[2]	9	15	6
Process[3]	10	25	15
Process[4]	6	31	25
Process[1]	8	33	25

Average Waiting Time: 17.750000

Avg Turnaround Time: 26.000000

RR-2 OUTPUT

[Enter Total Number of Processes:

Enter Details of Process[1]

Arrival Time: 0 Burst Time: 8

Enter Details of Process[2]

Arrival Time: 0 Burst Time: 9

Enter Details of Process[3]

Arrival Time: 0 Burst Time: 10

Enter Details of Process[4]

Arrival Time: 0 Burst Time: 6

Enter Time Quantum: 3

Process ID	Burst Time	Turnaround Time	Waiting Time
Process[1]	8	17	9
Process[2]	9	23	14
Process[4]	6	32	26
Process[3]	10	33	23

4

Average Waiting Time: 18.000000 Avg Turnaround Time: 26.250000

DATA-2

PROCESS	ARRIVAL TIME	BURST TIME
P1	0	10
P2	1	5
P3	2	7
P4	3	9

TIME QUANTUM =2

NRR OUTPUT

Enter Total Number of Processes: 4 Enter Details of Process[1] Arrival Time: 0 Burst Time: 10 [Enter Details of Process[2] Arrival Time: 1 Burst Time: 5 Enter Details of Process[3] Arrival Time: 2 Burst Time: Enter Details of Process[4] Arrival Time: 3 Burst Time: Enter Time Quantum: 2 Burst Time Turnaround Time Waiting Time Process ID 5 Process[2] 18 13 7 10 9 Process[3] 24 17 Process[1] 30 20 Process[4] 28 19 Average Waiting Time: 17.250000
Avg Turnaround Time: 25.000000

RR-1 OUTPUT

Enter Total Number of Processes:

Enter Details of Process[1]

Arrival Time: 0 Burst Time: 10

Enter Details of Process[2]

[Arrival Time: 1 Burst Time: 5

Enter Details of Process[3]

Arrival Time: 2 Burst Time: 7

Enter Details of Process[4]

Arrival Time: 3
Burst Time: 9

Enter Time Quantum: 2

Process ID	Burst Time	Turnaround Time	Waiting Time
Process[2]	5	8	3
Process[3]	7	14	7
Process[4]	9	22	13
Process[1]	10	31	21

Average Waiting Time: 11.000000 Avg Turnaround Time: 18.750000

RR-2 OUTPUT

[Enter Total Number of Processes: 4

Enter Details of Process[1]

Arrival Time: 0 Burst Time: 10

Enter Details of Process[2]

Arrival Time: 1 Burst Time: 5

Enter Details of Process[3]

Arrival Time: 2 Burst Time: 7

Enter Details of Process[4]

Arrival Time: 3
Burst Time: 9

Enter Time Quantum: 2

Process ID	Burst Time	Turnaround Time	Waiting Time
Process[2] Process[3]	5	17 21	12 14
Process[4]	9	27	18
Process[1]	10	31	21

Average Waiting Time: 16.250000 Avg Turnaround Time: 24.00000

DATA-3

PROCESS	ARRIVAL TIME	BURST TIME
P1	0	12
P2	0	13
P3	2	10
P4	2	9
P5	3	11
P6	3	7
P7	4	6

TIME QUANTUM=3

NRR OUTPUT

Enter Total Number of Processes: 7

Enter Details of Process[1]

Arrival Time: 0 Burst Time: 12

Enter Details of Process[2]

Arrival Time: 0 Burst Time: 13

Enter Details of Process[3]

Arrival Time: 2 [Burst Time: 10

[Enter Details of Process[4]

Arrival Time: 2 Burst Time: 9

Enter Details of Process[5]

Arrival Time: 3
Burst Time: 11

Enter Details of Process[6]

Arrival Time: 3
Burst Time: 7

Enter Details of Process[7]

Arrival Time: 4
Burst Time: 6

Enter Time Quantum: 3

Process ID	Burst Time	Turnaround Time	Waiting Time
Process[7]	6	38	32
Process[4]	9	52	43
Process[6]	7	55	48
Process[1]	12	61	49
Process[3]	10	63	53
Process[5]	11	64	53
Process[2]	13	68	55

Average Waiting Time: 47.571430 Avg Turnaround Time: 57.285713

RR-1 OUTPUT

Enter Total Number of Processes: 7

Enter Details of Process[1]

Arrival Time: 0 Burst Time: 12

Enter Details of Process[2]

Arrival Time: 0 Burst Time: 13

Enter Details of Process[3]

Arrival Time: 2 Burst Time: 10

Enter Details of Process[4]

[Arrival Time: 2 Burst Time: 9

Enter Details of Process[5]

Arrival Time: 3
Burst Time: 11

Enter Details of Process[6]

Arrival Time: 3
Burst Time: 7

Enter Details of Process[7]

Arrival Time: 4
Burst Time: 6

Enter Time Quantum: 3

Process ID	Burst Time	Turnaround Time	Waiting Time
Process[3]	10	26	16
Process[4]	9	35	26
Process[5]	11	45	34
Process[6]	7	52	45
Process[7]	6	57	51
Process[1]	12	67	55
Process[2]	13	68	55

Average Waiting Time: 40.285713 Avg Turnaround Time: 50.000000

RR-2 OUTPUT

[Enter Total Number of Processes: 7 Enter Details of Process[1] Arrival Time: 0 Burst Time: 12 Enter Details of Process[2] Arrival Time: 0 Burst Time: 13 Enter Details of Process[3] Arrival Time: 2 Burst Time: Enter Details of Process[4] Arrival Time: 2 Burst Time: Enter Details of Process[5] Arrival Time: 3 11 Burst Time: Enter Details of Process[6] Arrival Time: 3 Burst Time: Enter Details of Process[7] Arrival Time: 4 Burst Time: Enter Time Quantum: Process ID Burst Time Turnaround Time Waiting Time Process[3] 10 42 32 Process[4] 9 48 39 Process[5] 11 55 44 Process[6] 7 52 59 Process[7] 55 6 61 12 Process[1] 66 54

68

55

Avg Turnaround Time: 57.000000

Average Waiting Time: 47.285713

13

DATA-4

Process[2]

PROCESS	ARRIVAL TIME	BURST TIME
P1	0	10
P2	0	11
Р3	1	7
P4	2	14
P5	3	9
P6	4	8

TIME QUANTUM=5

NRR OUTPUT

Enter Total Number of Processes: 6

Enter Details of Process[1]

Arrival Time: 0
Burst Time: 10

Enter Details of Process[2]

Arrival Time: 0 Burst Time: 11

Enter Details of Process[3]

Arrival Time: 1 Burst Time: 7

Enter Details of Process[4]

[Arrival Time: 2 Burst Time: 14

Enter Details of Process[5]

Arrival Time: 3
Burst Time: 9

Enter Details of Process[6]

Arrival Time: 4 Burst Time: 8

Enter Time Quantum: 5

Process ID	Burst Time	Turnaround Time	Waiting Time
Process[1]	10	35	25
Process[3]	7	41	34
Process[5]	9	48	39
Process[6]	8	50	42
Process[2]	11	55	44
Process[4]	14	57	43

Average Waiting Time: 37.833332 Avg Turnaround Time: 47.666668

RR-1 OUTPUT

Enter Total Number of Processes: 6

Enter Details of Process[1]

Arrival Time: 0 Burst Time: 10

Enter Details of Process[2]

Arrival Time: 0 Burst Time: 11

Enter Details of Process[3]

Arrival Time: 1 Burst Time: 7

Enter Details of Process[4]

Arrival Time: 2 [Burst Time: 14

[Enter Details of Process[5]

Arrival Time: 3
Burst Time: 9

Enter Details of Process[6]

Arrival Time: 4
Burst Time: 8

Enter Time Quantum: 5

Process ID	Burst Time	Turnaround Time	Waiting Time
Process[1]	10	10	0
Process[2]	11	21	10
Process[3]	7	27	20
Process[4]	14	40	26
Process[5]	9	48	39
Process[6]	8	55	47

Average Waiting Time: 23.666666 Avg Turnaround Time: 33.500000

RR-2 OUTPUT

[Enter Total Number of Processes: 6

Enter Details of Process[1]

Arrival Time: 0 Burst Time: 10

Enter Details of Process[2]

Arrival Time: 0 Burst Time: 11

Enter Details of Process[3]

Arrival Time: 1
Burst Time: 7

Enter Details of Process[4]

Arrival Time: 2 Burst Time: 14

Enter Details of Process[5]

Arrival Time: 3
Burst Time: 9

Enter Details of Process[6]

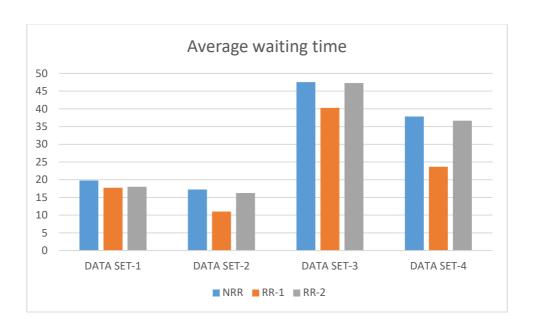
Arrival Time: 4
Burst Time: 8

Enter Time Quantum: 5

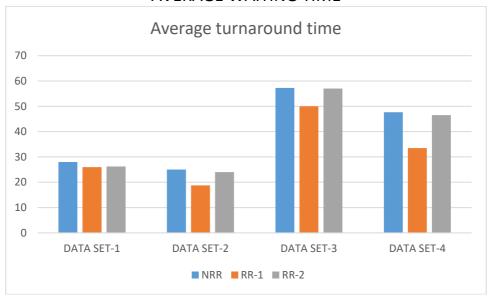
Process ID	Burst Time	Turnaround Time	Waiting Time
Process[1]	10	35	25
Process[2]	11	41	30
Process[3]	7	42	35
Process[5]	9	51	42
Process[6]	8	53	45
Process[4]	14	57	43

Average Waiting Time: 36.66668 Avg Turnaround Time: 46.500000

CONCLUSION



AVERAGE WAITING TIME



Average Turnaround time