ch 5

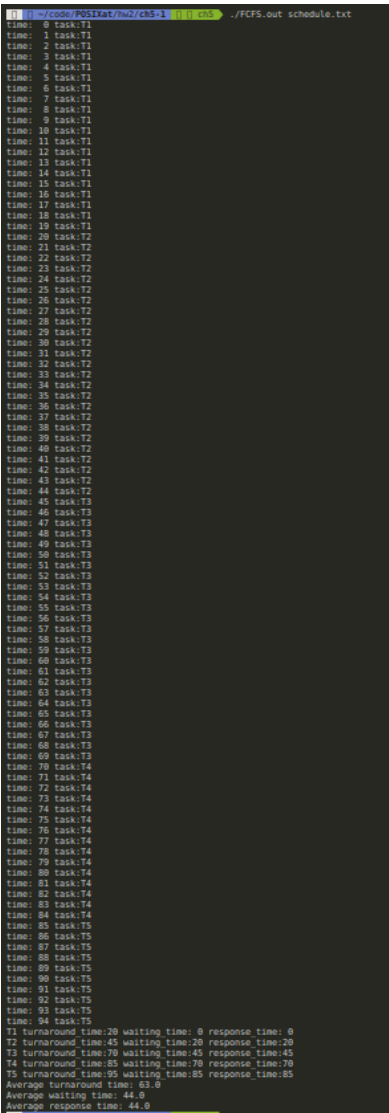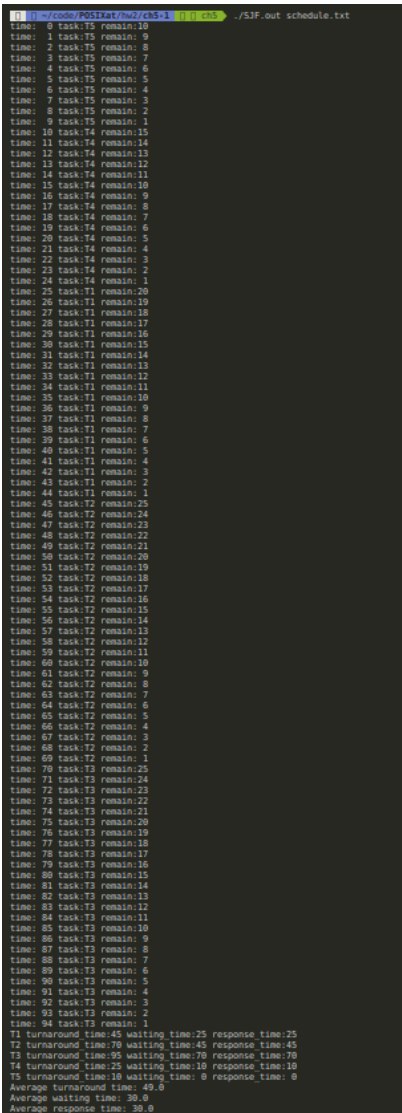## run

```
make

./FCFS.out schedule.txt
./SJF.out schedule.txt
./priority.out schedule.txt
./RR.out schedule.txt
./priority_RR.out schedule.txt
```
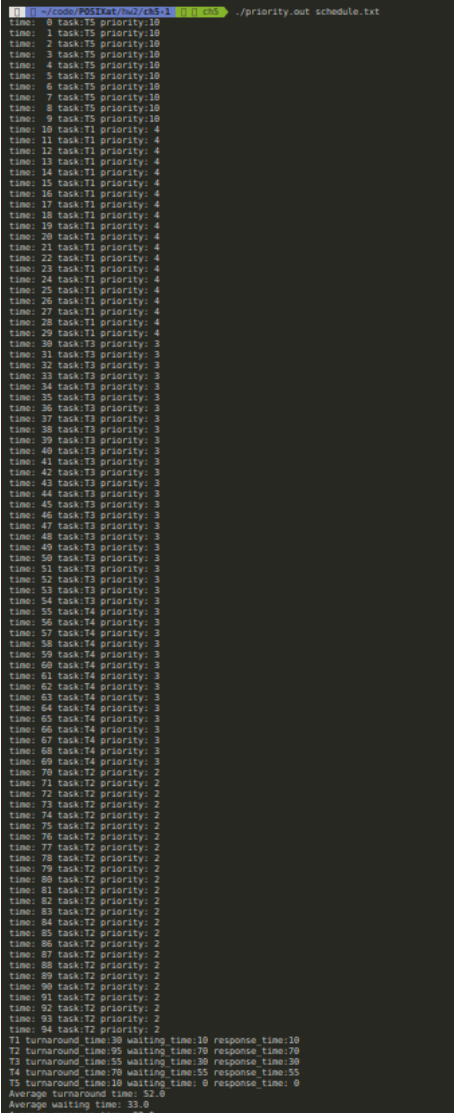
screenshot

FCFS   **SJF**   **priority**

RR (quantum = 10)   **priority_RR (quantum = 10)**

RR (quantum = 10)

```
nvidia@ubuntu:~/Desktop/ch5_2$ ./RR.out schedule.txt
time:  0 task:T1 brust:20
time:  1 task:T1 brust:19
time:  2 task:T1 brust:18
time:  3 task:T1 brust:17
time:  4 task:T1 brust:16
time:  5 task:T1 brust:15
time:  6 task:T1 brust:14
time:  7 task:T1 brust:13
time:  8 task:T1 brust:12
time:  9 task:T1 brust:11
time: 10 task:T2 brust:25
time: 11 task:T2 brust:24
time: 12 task:T2 brust:23
time: 13 task:T2 brust:22
time: 14 task:T2 brust:21
time: 15 task:T2 brust:20
time: 16 task:T2 brust:19
time: 17 task:T2 brust:18
time: 18 task:T2 brust:17
time: 19 task:T2 brust:16
time: 20 task:T3 brust:25
time: 21 task:T3 brust:24
time: 22 task:T3 brust:23
time: 23 task:T3 brust:22
time: 24 task:T3 brust:21
time: 25 task:T3 brust:20
time: 26 task:T3 brust:19
time: 27 task:T3 brust:18
time: 28 task:T3 brust:17
time: 29 task:T3 brust:16
time: 30 task:T4 brust:15
time: 31 task:T4 brust:14
time: 32 task:T4 brust:13
time: 33 task:T4 brust:12
time: 34 task:T4 brust:11
time: 35 task:T4 brust:10
time: 36 task:T4 brust: 9
time: 37 task:T4 brust: 8
time: 38 task:T4 brust: 7
time: 39 task:T4 brust: 6
time: 40 task:T5 brust:10
time: 41 task:T5 brust: 9
time: 42 task:T5 brust: 8
time: 43 task:T5 brust: 7
time: 44 task:T5 brust: 6
time: 45 task:T5 brust: 5
time: 46 task:T5 brust: 4
time: 47 task:T5 brust: 3
time: 48 task:T5 brust: 2
time: 49 task:T5 brust: 1
time: 50 task:T1 brust:10
time: 51 task:T1 brust: 9
time: 52 task:T1 brust: 8
time: 53 task:T1 brust: 7
time: 54 task:T1 brust: 6
time: 55 task:T1 brust: 5
time: 56 task:T1 brust: 4
time: 57 task:T1 brust: 3
time: 58 task:T1 brust: 2
time: 59 task:T1 brust: 1
time: 60 task:T2 brust:15
time: 61 task:T2 brust:14
time: 62 task:T2 brust:13
time: 63 task:T2 brust:12
time: 64 task:T2 brust:11
time: 65 task:T2 brust:10
time: 66 task:T2 brust: 9
time: 67 task:T2 brust: 8
time: 68 task:T2 brust: 7
time: 69 task:T2 brust: 6
time: 70 task:T3 brust:15
time: 71 task:T3 brust:14
time: 72 task:T3 brust:13
time: 73 task:T3 brust:12
time: 74 task:T3 brust:11
time: 75 task:T3 brust:10
time: 76 task:T3 brust: 9
time: 77 task:T3 brust: 8
time: 78 task:T3 brust: 7
time: 79 task:T3 brust: 6
time: 80 task:T4 brust: 5
time: 81 task:T4 brust: 4
time: 82 task:T4 brust: 3
time: 83 task:T4 brust: 2
time: 84 task:T4 brust: 1
time: 85 task:T2 brust: 5
time: 86 task:T2 brust: 4
time: 87 task:T2 brust: 3
time: 88 task:T2 brust: 2
time: 89 task:T2 brust: 1
time: 90 task:T3 brust: 5
time: 91 task:T3 brust: 4
time: 92 task:T3 brust: 3
time: 93 task:T3 brust: 2
time: 94 task:T3 brust: 1
T1 turnaround_time:60 waiting_time:40 response_time: 0
T2 turnaround_time:90 waiting_time:65 response_time:10
T3 turnaround_time:95 waiting_time:70 response_time:20
T4 turnaround_time:85 waiting_time:70 response_time:30
T5 turnaround_time:50 waiting_time:40 response_time:40
Average turnaround time: 76.0
Average waiting time: 57.0
Average response time: 20.0
```

priority_RR (quantum = 10)

```
Average response time: 20.0
nvidia@ubuntu:~/Desktop/ch5_2$ ./priority_RR.out schedule.txt
time:  0 task:T2 brust:25 priority: 2
time:  1 task:T2 brust:24 priority: 2
time:  2 task:T2 brust:23 priority: 2
time:  3 task:T2 brust:22 priority: 2
time:  4 task:T2 brust:21 priority: 2
time:  5 task:T2 brust:20 priority: 2
time:  6 task:T2 brust:19 priority: 2
time:  7 task:T2 brust:18 priority: 2
time:  8 task:T2 brust:17 priority: 2
time:  9 task:T2 brust:16 priority: 2
time: 10 task:T2 brust:15 priority: 2
time: 11 task:T2 brust:14 priority: 2
time: 12 task:T2 brust:13 priority: 2
time: 13 task:T2 brust:12 priority: 2
time: 14 task:T2 brust:11 priority: 2
time: 15 task:T2 brust:10 priority: 2
time: 16 task:T2 brust: 9 priority: 2
time: 17 task:T2 brust: 8 priority: 2
time: 18 task:T2 brust: 7 priority: 2
time: 19 task:T2 brust: 6 priority: 2
time: 20 task:T2 brust: 5 priority: 2
time: 21 task:T2 brust: 4 priority: 2
time: 22 task:T2 brust: 3 priority: 2
time: 23 task:T2 brust: 2 priority: 2
time: 24 task:T2 brust: 1 priority: 2
time: 25 task:T3 brust:25 priority: 3
time: 26 task:T3 brust:24 priority: 3
time: 27 task:T3 brust:23 priority: 3
time: 28 task:T3 brust:22 priority: 3
time: 29 task:T3 brust:21 priority: 3
time: 30 task:T3 brust:20 priority: 3
time: 31 task:T3 brust:19 priority: 3
time: 32 task:T3 brust:18 priority: 3
time: 33 task:T3 brust:17 priority: 3
time: 34 task:T3 brust:16 priority: 3
time: 35 task:T4 brust:15 priority: 3
time: 36 task:T4 brust:14 priority: 3
time: 37 task:T4 brust:13 priority: 3
time: 38 task:T4 brust:12 priority: 3
time: 39 task:T4 brust:11 priority: 3
time: 40 task:T4 brust:10 priority: 3
time: 41 task:T4 brust: 9 priority: 3
time: 42 task:T4 brust: 8 priority: 3
time: 43 task:T4 brust: 7 priority: 3
time: 44 task:T4 brust: 6 priority: 3
time: 45 task:T3 brust:15 priority: 3
time: 46 task:T3 brust:14 priority: 3
time: 47 task:T3 brust:13 priority: 3
time: 48 task:T3 brust:12 priority: 3
time: 49 task:T3 brust:11 priority: 3
time: 50 task:T3 brust:10 priority: 3
time: 51 task:T3 brust: 9 priority: 3
time: 52 task:T3 brust: 8 priority: 3
time: 53 task:T3 brust: 7 priority: 3
time: 54 task:T3 brust: 6 priority: 3
time: 55 task:T4 brust: 5 priority: 3
time: 56 task:T4 brust: 4 priority: 3
time: 57 task:T4 brust: 3 priority: 3
time: 58 task:T4 brust: 2 priority: 3
time: 59 task:T4 brust: 1 priority: 3
time: 60 task:T3 brust: 5 priority: 3
time: 61 task:T3 brust: 4 priority: 3
time: 62 task:T3 brust: 3 priority: 3
time: 63 task:T3 brust: 2 priority: 3
time: 64 task:T3 brust: 1 priority: 3
time: 65 task:T1 brust:20 priority: 4
time: 66 task:T1 brust:19 priority: 4
time: 67 task:T1 brust:18 priority: 4
time: 68 task:T1 brust:17 priority: 4
time: 69 task:T1 brust:16 priority: 4
time: 70 task:T1 brust:15 priority: 4
time: 71 task:T1 brust:14 priority: 4
time: 72 task:T1 brust:13 priority: 4
time: 73 task:T1 brust:12 priority: 4
time: 74 task:T1 brust:11 priority: 4
time: 75 task:T1 brust:10 priority: 4
time: 76 task:T1 brust: 9 priority: 4
time: 77 task:T1 brust: 8 priority: 4
time: 78 task:T1 brust: 7 priority: 4
time: 79 task:T1 brust: 6 priority: 4
time: 80 task:T1 brust: 5 priority: 4
time: 81 task:T1 brust: 4 priority: 4
time: 82 task:T1 brust: 3 priority: 4
time: 83 task:T1 brust: 2 priority: 4
time: 84 task:T1 brust: 1 priority: 4
time: 85 task:T5 brust:10 priority:10
time: 86 task:T5 brust: 9 priority:10
time: 87 task:T5 brust: 8 priority:10
time: 88 task:T5 brust: 7 priority:10
time: 89 task:T5 brust: 6 priority:10
time: 90 task:T5 brust: 5 priority:10
time: 91 task:T5 brust: 4 priority:10
time: 92 task:T5 brust: 3 priority:10
time: 93 task:T5 brust: 2 priority:10
time: 94 task:T5 brust: 1 priority:10
T1 turnaround_time:85 waiting_time:65 response_time:65
T2 turnaround_time:25 waiting_time: 0 response_time: 0
T3 turnaround_time:65 waiting_time:40 response_time:25
T4 turnaround_time:60 waiting_time:45 response_time:35
T5 turnaround_time:95 waiting_time:85 response_time:85
Average turnaround time: 66.0
Average waiting time: 47.0
Average response time: 42.0
```