

ch 5

run

```
make

./FCFS.out schedule.txt
./SJF.out schedule.txt
./priority.out schedule.txt
```

screenshot

FCFS

SJF

priority

```
1 1 ~/code/POSIXat/m2/ch5-1 1 1 ch5 ./FCFS.out schedule.txt
time: 0 task:T1
time: 1 task:T1
time: 2 task:T1
time: 3 task:T1
time: 4 task:T1
time: 5 task:T1
time: 6 task:T1
time: 7 task:T1
time: 8 task:T1
time: 9 task:T1
time: 10 task:T1
time: 11 task:T1
time: 12 task:T1
time: 13 task:T1
time: 14 task:T1
time: 15 task:T1
time: 16 task:T1
time: 17 task:T1
time: 18 task:T1
time: 19 task:T1
time: 20 task:T2
time: 21 task:T2
time: 22 task:T2
time: 23 task:T2
time: 24 task:T2
time: 25 task:T2
time: 26 task:T2
time: 27 task:T2
time: 28 task:T2
time: 29 task:T2
time: 30 task:T2
time: 31 task:T2
time: 32 task:T2
time: 33 task:T2
time: 34 task:T2
time: 35 task:T2
time: 36 task:T2
time: 37 task:T2
time: 38 task:T2
time: 39 task:T2
time: 40 task:T2
time: 41 task:T2
time: 42 task:T2
time: 43 task:T2
time: 44 task:T2
time: 45 task:T3
time: 46 task:T3
time: 47 task:T3
time: 48 task:T3
time: 49 task:T3
time: 50 task:T3
time: 51 task:T3
time: 52 task:T3
time: 53 task:T3
time: 54 task:T3
time: 55 task:T3
time: 56 task:T3
time: 57 task:T3
time: 58 task:T3
time: 59 task:T3
time: 60 task:T3
time: 61 task:T3
time: 62 task:T3
time: 63 task:T3
time: 64 task:T3
time: 65 task:T3
time: 66 task:T3
time: 67 task:T3
time: 68 task:T3
time: 69 task:T3
time: 70 task:T4
time: 71 task:T4
time: 72 task:T4
time: 73 task:T4
time: 74 task:T4
time: 75 task:T4
time: 76 task:T4
time: 77 task:T4
time: 78 task:T4
time: 79 task:T4
time: 80 task:T4
time: 81 task:T4
time: 82 task:T4
time: 83 task:T4
time: 84 task:T4
time: 85 task:T5
time: 86 task:T5
time: 87 task:T5
time: 88 task:T5
time: 89 task:T5
time: 90 task:T5
time: 91 task:T5
time: 92 task:T5
time: 93 task:T5
time: 94 task:T5
T1 turnaround time:20 waiting time: 0 response time: 0
T2 turnaround time:45 waiting time:20 response time:20
T3 turnaround time:85 waiting time:70 response time:45
T4 turnaround time:95 waiting time:80 response time:70
T5 turnaround time:95 waiting time:85 response time:85
Average turnaround time: 63.0
Average waiting time: 44.0
Average response time: 44.0
```

```
1 1 ~/code/POSIXat/m2/ch5-1 1 1 ch5 ./SJF.out schedule.txt
time: 0 task:T5 remain:10
time: 1 task:T5 remain: 9
time: 2 task:T5 remain: 8
time: 3 task:T5 remain: 7
time: 4 task:T5 remain: 6
time: 5 task:T5 remain: 5
time: 6 task:T5 remain: 4
time: 7 task:T5 remain: 3
time: 8 task:T5 remain: 2
time: 9 task:T5 remain: 1
time: 10 task:T4 remain:15
time: 11 task:T4 remain:14
time: 12 task:T4 remain:13
time: 13 task:T4 remain:12
time: 14 task:T4 remain:11
time: 15 task:T4 remain:10
time: 16 task:T4 remain: 9
time: 17 task:T4 remain: 8
time: 18 task:T4 remain: 7
time: 19 task:T4 remain: 6
time: 20 task:T4 remain: 5
time: 21 task:T4 remain: 4
time: 22 task:T4 remain: 3
time: 23 task:T4 remain: 2
time: 24 task:T4 remain: 1
time: 25 task:T1 remain:20
time: 26 task:T1 remain:19
time: 27 task:T1 remain:18
time: 28 task:T1 remain:17
time: 29 task:T1 remain:16
time: 30 task:T1 remain:15
time: 31 task:T1 remain:14
time: 32 task:T1 remain:13
time: 33 task:T1 remain:12
time: 34 task:T1 remain:11
time: 35 task:T1 remain:10
time: 36 task:T1 remain: 9
time: 37 task:T1 remain: 8
time: 38 task:T1 remain: 7
time: 39 task:T1 remain: 6
time: 40 task:T1 remain: 5
time: 41 task:T1 remain: 4
time: 42 task:T1 remain: 3
time: 43 task:T1 remain: 2
time: 44 task:T1 remain: 1
time: 45 task:T2 remain:25
time: 46 task:T2 remain:24
time: 47 task:T2 remain:23
time: 48 task:T2 remain:22
time: 49 task:T2 remain:21
time: 50 task:T2 remain:20
time: 51 task:T2 remain:19
time: 52 task:T2 remain:18
time: 53 task:T2 remain:17
time: 54 task:T2 remain:16
time: 55 task:T2 remain:15
time: 56 task:T2 remain:14
time: 57 task:T2 remain:13
time: 58 task:T2 remain:12
time: 59 task:T2 remain:11
time: 60 task:T2 remain:10
time: 61 task:T2 remain: 9
time: 62 task:T2 remain: 8
time: 63 task:T2 remain: 7
time: 64 task:T2 remain: 6
time: 65 task:T2 remain: 5
time: 66 task:T2 remain: 4
time: 67 task:T2 remain: 3
time: 68 task:T2 remain: 2
time: 69 task:T2 remain: 1
time: 70 task:T3 remain:25
time: 71 task:T3 remain:24
time: 72 task:T3 remain:23
time: 73 task:T3 remain:22
time: 74 task:T3 remain:21
time: 75 task:T3 remain:20
time: 76 task:T3 remain:19
time: 77 task:T3 remain:18
time: 78 task:T3 remain:17
time: 79 task:T3 remain:16
time: 80 task:T3 remain:15
time: 81 task:T3 remain:14
time: 82 task:T3 remain:13
time: 83 task:T3 remain:12
time: 84 task:T3 remain:11
time: 85 task:T3 remain:10
time: 86 task:T3 remain: 9
time: 87 task:T3 remain: 8
time: 88 task:T3 remain: 7
time: 89 task:T3 remain: 6
time: 90 task:T3 remain: 5
time: 91 task:T3 remain: 4
time: 92 task:T3 remain: 3
time: 93 task:T3 remain: 2
time: 94 task:T3 remain: 1
T1 turnaround time:45 waiting time:25 response time:25
T2 turnaround time:70 waiting time:45 response time:45
T3 turnaround time:95 waiting time:70 response time:70
T4 turnaround time:25 waiting time:10 response time:10
T5 turnaround time:10 waiting time: 0 response time: 0
Average turnaround time: 49.0
Average waiting time: 30.0
Average response time: 30.0
```

```
1 1 ~/code/POSIXat/m2/ch5-1 1 1 ch5 ./priority.out schedule.txt
time: 0 task:T5 priority:10
time: 1 task:T5 priority:10
time: 2 task:T5 priority:10
time: 3 task:T5 priority:10
time: 4 task:T5 priority:10
time: 5 task:T5 priority:10
time: 6 task:T5 priority:10
time: 7 task:T5 priority:10
time: 8 task:T5 priority:10
time: 9 task:T5 priority:10
time: 10 task:T1 priority: 4
time: 11 task:T1 priority: 4
time: 12 task:T1 priority: 4
time: 13 task:T1 priority: 4
time: 14 task:T1 priority: 4
time: 15 task:T1 priority: 4
time: 16 task:T1 priority: 4
time: 17 task:T1 priority: 4
time: 18 task:T1 priority: 4
time: 19 task:T1 priority: 4
time: 20 task:T1 priority: 4
time: 21 task:T1 priority: 4
time: 22 task:T1 priority: 4
time: 23 task:T1 priority: 4
time: 24 task:T1 priority: 4
time: 25 task:T1 priority: 4
time: 26 task:T1 priority: 4
time: 27 task:T1 priority: 4
time: 28 task:T1 priority: 4
time: 29 task:T1 priority: 4
time: 30 task:T3 priority: 3
time: 31 task:T3 priority: 3
time: 32 task:T3 priority: 3
time: 33 task:T3 priority: 3
time: 34 task:T3 priority: 3
time: 35 task:T3 priority: 3
time: 36 task:T3 priority: 3
time: 37 task:T3 priority: 3
time: 38 task:T3 priority: 3
time: 39 task:T3 priority: 3
time: 40 task:T3 priority: 3
time: 41 task:T3 priority: 3
time: 42 task:T3 priority: 3
time: 43 task:T3 priority: 3
time: 44 task:T3 priority: 3
time: 45 task:T3 priority: 3
time: 46 task:T3 priority: 3
time: 47 task:T3 priority: 3
time: 48 task:T3 priority: 3
time: 49 task:T3 priority: 3
time: 50 task:T3 priority: 3
time: 51 task:T3 priority: 3
time: 52 task:T3 priority: 3
time: 53 task:T3 priority: 3
time: 54 task:T4 priority: 3
time: 55 task:T4 priority: 3
time: 56 task:T4 priority: 3
time: 57 task:T4 priority: 3
time: 58 task:T4 priority: 3
time: 59 task:T4 priority: 3
time: 60 task:T4 priority: 3
time: 61 task:T4 priority: 3
time: 62 task:T4 priority: 3
time: 63 task:T4 priority: 3
time: 64 task:T4 priority: 3
time: 65 task:T4 priority: 3
time: 66 task:T4 priority: 3
time: 67 task:T4 priority: 3
time: 68 task:T4 priority: 3
time: 69 task:T4 priority: 3
time: 70 task:T2 priority: 2
time: 71 task:T2 priority: 2
time: 72 task:T2 priority: 2
time: 73 task:T2 priority: 2
time: 74 task:T2 priority: 2
time: 75 task:T2 priority: 2
time: 76 task:T2 priority: 2
time: 77 task:T2 priority: 2
time: 78 task:T2 priority: 2
time: 79 task:T2 priority: 2
time: 80 task:T2 priority: 2
time: 81 task:T2 priority: 2
time: 82 task:T2 priority: 2
time: 83 task:T2 priority: 2
time: 84 task:T2 priority: 2
time: 85 task:T2 priority: 2
time: 86 task:T2 priority: 2
time: 87 task:T2 priority: 2
time: 88 task:T2 priority: 2
time: 89 task:T2 priority: 2
time: 90 task:T2 priority: 2
time: 91 task:T2 priority: 2
time: 92 task:T2 priority: 2
time: 93 task:T2 priority: 2
time: 94 task:T2 priority: 2
T1 turnaround time:30 waiting time:10 response time:10
T2 turnaround time:95 waiting time:70 response time:70
T3 turnaround time:55 waiting time:30 response time:30
T4 turnaround time:70 waiting time:55 response time:55
T5 turnaround time:10 waiting time: 0 response time: 0
Average turnaround time: 52.0
Average waiting time: 33.0
Average response time: 33.0
```