

7. Appendix: about input file and output information by CPU scheduling simulator

for FCFS, RR, and SRTF

```
% more input.1
1  0 10
2  0  9
3  3  5
4  7  4
5 10  6
6 10  7

% proj2
Usage: proj2 input_file FCFS|RR|SRJF [quantum]

% proj2 input.1 FCFS
Scheduling algorithm: FCFS
Total 6 tasks are read from "input.1". press 'enter' to start...
=====
<system time  0> process  1 is running
<system time  1> process  1 is running
<system time  2> process  1 is running
<system time  3> process  1 is running
<system time  4> process  1 is running
<system time  5> process  1 is running
<system time  6> process  1 is running
<system time  7> process  1 is running
<system time  8> process  1 is running
<system time  9> process  1 is running
<system time 10> process  1 is finished.....
<system time 10> process  2 is running
<system time 11> process  2 is running
<system time 12> process  2 is running
<system time 13> process  2 is running
<system time 14> process  2 is running
<system time 15> process  2 is running
<system time 16> process  2 is running
<system time 17> process  2 is running
<system time 18> process  2 is running
<system time 19> process  2 is finished.....
<system time 19> process  3 is running
<system time 20> process  3 is running
<system time 21> process  3 is running
<system time 22> process  3 is running
<system time 23> process  3 is running
<system time 24> process  3 is finished.....
<system time 24> process  4 is running
<system time 25> process  4 is running
<system time 26> process  4 is running
<system time 27> process  4 is running
<system time 28> process  4 is finished.....
<system time 28> process  5 is running
<system time 29> process  5 is running
<system time 30> process  5 is running
<system time 31> process  5 is running
<system time 32> process  5 is running
<system time 33> process  5 is running
<system time 34> process  5 is finished.....
<system time 34> process  6 is running
<system time 35> process  6 is running
<system time 36> process  6 is running
<system time 37> process  6 is running
<system time 38> process  6 is running
<system time 39> process  6 is running
<system time 40> process  6 is running
<system time 41> process  6 is finished.....
<system time 41> All processes finish .....
=====
```

Avarage cpu usage : 100.00 %
Avarage waiting time : 14.17
Avarage response time : 14.17
Avarage turnaround time: 21.00

=====
% proj2 input.1 RR 2
Schdeuling algorithm: RR
Total 6 tasks are read from "input.1". press 'enter' to start...

=====
<system time 0> process 1 is running
<system time 1> process 1 is running
<system time 2> process 2 is running
<system time 3> process 2 is running
<system time 4> process 1 is running
<system time 5> process 1 is running
<system time 6> process 3 is running
<system time 7> process 3 is running
<system time 8> process 2 is running
<system time 9> process 2 is running
<system time 10> process 1 is running
<system time 11> process 1 is running
<system time 12> process 4 is running
<system time 13> process 4 is running
<system time 14> process 3 is running
<system time 15> process 3 is running
<system time 16> process 5 is running
<system time 17> process 5 is running
<system time 18> process 6 is running
<system time 19> process 6 is running
<system time 20> process 2 is running
<system time 21> process 2 is running
<system time 22> process 1 is running
<system time 23> process 1 is running
<system time 24> process 4 is running
<system time 25> process 4 is running
<system time 26> process 4 is finished.....
<system time 26> process 3 is running
<system time 27> process 3 is finished.....
<system time 27> process 5 is running
<system time 28> process 5 is running
<system time 29> process 6 is running
<system time 30> process 6 is running
<system time 31> process 2 is running
<system time 32> process 2 is running
<system time 33> process 1 is running
<system time 34> process 1 is running
<system time 35> process 1 is finished.....
<system time 35> process 5 is running
<system time 36> process 5 is running
<system time 37> process 5 is finished.....
<system time 37> process 6 is running
<system time 38> process 6 is running
<system time 39> process 2 is running
<system time 40> process 2 is finished.....
<system time 40> process 6 is running
<system time 41> process 6 is finished.....
<system time 41> All processes finish

=====
Avarage cpu usage : 100.00 %
Avarage waiting time : 22.50
Avarage response time : 4.00
Avarage turnaround time: 29.33

=====
% proj2 input.1 SRTF
Schdeuling algorithm: SRTF
Total 6 tasks are read from "input.1". press 'enter' to start...

```
<system time 0> process 2 is running
<system time 1> process 2 is running
<system time 2> process 2 is running
<system time 3> process 3 is running
<system time 4> process 3 is running
<system time 5> process 3 is running
<system time 6> process 3 is running
<system time 7> process 3 is running
<system time 8> process 3 is finished.....
<system time 8> process 4 is running
<system time 9> process 4 is running
<system time 10> process 4 is running
<system time 11> process 4 is running
<system time 12> process 4 is finished.....
<system time 12> process 2 is running
<system time 13> process 2 is running
<system time 14> process 2 is running
<system time 15> process 2 is running
<system time 16> process 2 is running
<system time 17> process 2 is running
<system time 18> process 2 is finished.....
<system time 18> process 5 is running
<system time 19> process 5 is running
<system time 20> process 5 is running
<system time 21> process 5 is running
<system time 22> process 5 is running
<system time 23> process 5 is running
<system time 24> process 5 is finished.....
<system time 24> process 6 is running
<system time 25> process 6 is running
<system time 26> process 6 is running
<system time 27> process 6 is running
<system time 28> process 6 is running
<system time 29> process 6 is running
<system time 30> process 6 is running
<system time 31> process 6 is finished.....
<system time 31> process 1 is running
<system time 32> process 1 is running
<system time 33> process 1 is running
<system time 34> process 1 is running
<system time 35> process 1 is running
<system time 36> process 1 is running
<system time 37> process 1 is running
<system time 38> process 1 is running
<system time 39> process 1 is running
<system time 40> process 1 is running
<system time 41> process 1 is finished.....
<system time 41> All processes finish .....
```

```
=====
Avarage cpu usage      : 100.00 %
Avarage waiting time   : 10.50
Avarage response time  : 9.00
Avarage turnaround time: 17.33
=====
```