دانشکده مهندسی کامپیوتر

آزمایشگاه سیستم عامل

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FCFS)


```
rahimi_99521289@99521289:~/Desktop/cloner/HW12$ ls
FCFS.c  Priority.c  RR.c  SJF.c
rahimi_99521289@99521289:~/Desktop/cloner/HW12$ gcc FCFS.c
rahimi_99521289@99521289:~/Desktop/cloner/HW12$ ./a.out
Input number of process: 5
Enter process number 0 service time: 1
Enter process number 1 service time: 2
Enter process number 2 service time: 3
Enter process number 3 service time: 4
Enter process number 4 service time: 5
Running Algorithm:
process number 0: service time: 1 waiting time: 0 total time: 1
process number 1: service time: 2 waiting time: 1 total time: 3
process number 2: service time: 3 waiting time: 3 total time: 6
process number 3: service time: 4 waiting time: 6 total time: 10
process number 4: service time: 5 waiting time: 10 total time: 15
Average service time: 3.000000 Average waiting time: 4.000000 Average total time: 3.000000
rahimi_99521289@99521289:~/Desktop/cloner/HW12$
```

SJF)


```
rahimi_99521289@99521289:~/Desktop/cloner/HW12$ ls
FCFS.c  FCFS.png  Priority.c  RR.c  SJF.c
rahimi_99521289@99521289:~/Desktop/cloner/HW12$ gcc SJF.c
rahimi_99521289@99521289:~/Desktop/cloner/HW12$ ./a.out
Input number of process: 5
Enter process number 0 service time: 1
Enter process number 1 service time: 6
Enter process number 2 service time: 8
Enter process number 3 service time: 17
Enter process number 4 service time: 65
Running Algorithm:
process number 1: service time: 1 waiting time: 0 total time: 1
process number 2: service time: 6 waiting time: 1 total time: 7
process number 3: service time: 8 waiting time: 7 total time: 15
process number 4: service time: 17 waiting time: 15 total time: 32
process number 5: service time: 65 waiting time: 32 total time: 97
Average service time: 19.400000 Average waiting time: 11.000000 Average total time: 30.400000
rahimi_99521289@99521289:~/Desktop/cloner/HW12$ 
```

Priority)


```
rahimi_99521289@99521289:~/Desktop/cloner/HW12$ ls
FCFS.c  FCFS.png  Priority.c  RR.c  SJF.c  SJF.png
rahimi_99521289@99521289:~/Desktop/cloner/HW12$ gcc Priority.c
rahimi_99521289@99521289:~/Desktop/cloner/HW12$ ./a.out
Input number of process: 5
Enter process number 0 service time: 1
Enter process number 0 priority: 5
Enter process number 1 service time: 3
Enter process number 1 priority: 7
Enter process number 2 service time: 2
Enter process number 2 priority: 8
Enter process number 3 service time: 3
Enter process number 3 priority: 5
Enter process number 4 service time: 9
Enter process number 4 priority: 6
Running Algorithm:
process number 1 with priority 5: service time: 1 waiting time: 0 total time: 1
process number 4 with priority 5: service time: 3 waiting time: 1 total time: 4
process number 5 with priority 6: service time: 9 waiting time: 4 total time: 13
process number 2 with priority 7: service time: 3 waiting time: 13 total time: 16
process number 3 with priority 8: service time: 2 waiting time: 16 total time: 18
Average service time: 6.200000 Average waiting time: 6.800000 Average total time: 10.400000
rahimi_99521289@99521289:~/Desktop/cloner/HW12$ 
```

RR)

```
rahimi_99521289@99521289:~/Desktop/cloner/HW12$ ls
FCFS.c  FCFS.png  Priority.c  PR.png  RR.c  SJF.c  SJF.png
rahimi_99521289@99521289:~/Desktop/cloner/HW12$ gcc RR.c
rahimi_99521289@99521289:~/Desktop/cloner/HW12$ ./a.out
enter number of processes
5
enter service time of process 1
5
enter service time of process 2
4
enter service time of process 3
7
enter service time of process 4
8
enter service time of process 5
4
enter time quantum
3
process 1 is serviced 3 seconds
process 1 is serviced 2 seconds
process 2 is serviced 3 seconds
process 2 is serviced 1 seconds
process 3 is serviced 3 seconds
process 3 is serviced 3 seconds
process 3 is serviced 1 seconds
process 4 is serviced 3 seconds
process 4 is serviced 3 seconds
process 4 is serviced 2 seconds
process 5 is serviced 3 seconds
process 5 is serviced 1 seconds
process 1 => wait= 0 seconds
process 2 => wait= 5 seconds
process 3 => wait= 9 seconds
process 4 => wait= 16 seconds
process 5 => wait= 24 seconds
the average waiting time is 10
rahimi_99521289@99521289:~/Desktop/cloner/HW12$ []
```