



Assessed Coursework

Course Name	Networks and Operating Systems Essentials 2			
Coursework Number	2			
Deadline	Time:	16:30	Date:	Fri 27 Nov 2020
% Contribution to final course mark	10%			
Solo or Group ✓	Solo		Group	✓ (2 members)
Anticipated Hours	10			
Submission Instructions	Submit two files (Report.pdf, schedulers.py) via Moodle			
Please Note: This Coursework cannot be Re-Done				

Code of Assessment Rules for Coursework Submission

Deadlines for the submission of coursework which is to be formally assessed will be published in course documentation, and work which is submitted later than the deadline will be subject to penalty as set out below.

The primary grade and secondary band awarded for coursework which is submitted after the published deadline will be calculated as follows:

- (i) in respect of work submitted not more than five working days after the deadline
 - a. the work will be assessed in the usual way;
 - b. the primary grade and secondary band so determined will then be reduced by two secondary bands for each working day (or part of a working day) the work was submitted late.
- (ii) work submitted more than five working days after the deadline will be awarded Grade H.

Penalties for late submission of coursework will not be imposed if good cause is established for the late submission. You should submit documents supporting good cause via MyCampus.

Penalty for non-adherence to Submission Instructions is 2 bands

You must complete an "Own Work" form via

<https://webapps.dcs.gla.ac.uk/ETHICS> for all coursework

UNLESS submitted via Moodle

Seed - 1797410758

FCFS

Avg. turnaround time: 10.20626019426265

Avg. waiting time: 8.103232992470705

SJF -

Avg. turnaround time: 9.054375105202952

Avg. waiting time: 6.951347903411007

RR

Avg. turnaround time: 7.204485165350515

Avg. waiting time: 5.101457963558569

SRTF

Avg. turnaround time: 4.439666250231411

Avg. waiting time: 2.336639048439465

In this seed the order of best times was SRTF, RR, SJF, FCFS.

In this seed RR was more effective in the rankings and time compared to the other seeds, this could be down to the early large service time of process #2, this causes FCFS and SJF to spend a long time working on this causing the wait times to be much longer, whereas RR gives it some time and then moves onto other process which it can complete.

FCFS in this seed is particularly bad here because the large process near the start get worked on while all the other process arrive, this means they all need to wait for the long service time task to be completed before they can start being worked on, causing the waiting/turnaround time to be fairly bad for these process bringing the average up.

Seed – 2688744162

FCFS

Avg. turnaround time: 7.263691855776069

Avg. waiting time: 5.500140766429613

SJF

Avg. turnaround time: 5.590846738146201

Avg. waiting time: 3.827295648799745

RR

Avg. turnaround time: 9.496777095052447

Avg. waiting time: 7.733226005705991

SRTF

Avg. turnaround time: 5.537420726851737

Avg. waiting time: 3.773869637505282

In this seed the order of best times was SRTF, SJF, FCFS, RR

In this seed the RR algorithm is particularly slow. This is down to the even spread in service time between process. This cause the RR to work each process for a bit then move onto the next. The first process done then has to wait for all the other available process to be worked on before it can be finished. Since all the process need to be worked on more than once the list of remaining process often contains many tasks.

SJF and FCFS are particularly good in this seed. This is also due to the even spread between process service times. As there is not large process time early on, it means that they are not working on them while other process arrives, so when a task arrives it is finished quickly and the next process is not waiting too long.

Seed – 3399474557

FCFS

Avg. turnaround time: 11.325125212280275

Avg. waiting time: 9.347962673292866

SJF

Avg. turnaround time: 6.958031401876262

Avg. waiting time: 4.9808688628888556

RR

Avg. turnaround time: 7.888769296159832

Avg. waiting time: 5.911606757172425

SRTF

Avg. turnaround time: 4.747688087757453

Avg. waiting time: 2.770525548770047

In this seed the order of best times was SRTF, SJF, RR, FCFS

In this seed SJF is particularly good. This is down to the large number of process in this seed that have low service times. Once the first process is done all the other process have arrived, so they all get done quickly giving them a good waiting time. It then does the longer process last. As there is only 1 longer process it does not affect time average times that much giving it a good overall score.

However, in this seed FCFS has a particular bad time. This is down to the 2 very long service times among the process. The process works on these delaying the following process, causing them to have to wait a long time before being completed.