Callum Ormond 2458150O Lab Group 12

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 them 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.

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 them 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.

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 bas 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.