Report:

Scheduling algorithms are widely used by the processor or other systems to simulate the concurrence of processes, among them there are several algorithms. In this project, the FIFO, SJF, SRF and MLF algorithms were simulated.

FIFO

the FIFO algorithm has a purpose: the first to arrive is the first to leave, for this purpose it is sought to prioritize those with the shortest arrival time, therefore if one appears before the process ends, it remains on hold until it can be used .

This is a non-preemptive algorithm so one process cannot take the resource from another until it is done.

SJF

SJF is the algorithm of the shortest job, this is also a non-preemptive algorithm that prioritizes the shortest job, that is, the job that needs less time to finish is prioritized.

The version worked in this case is the preemptive one, that is, the process can pass the resource to another process.

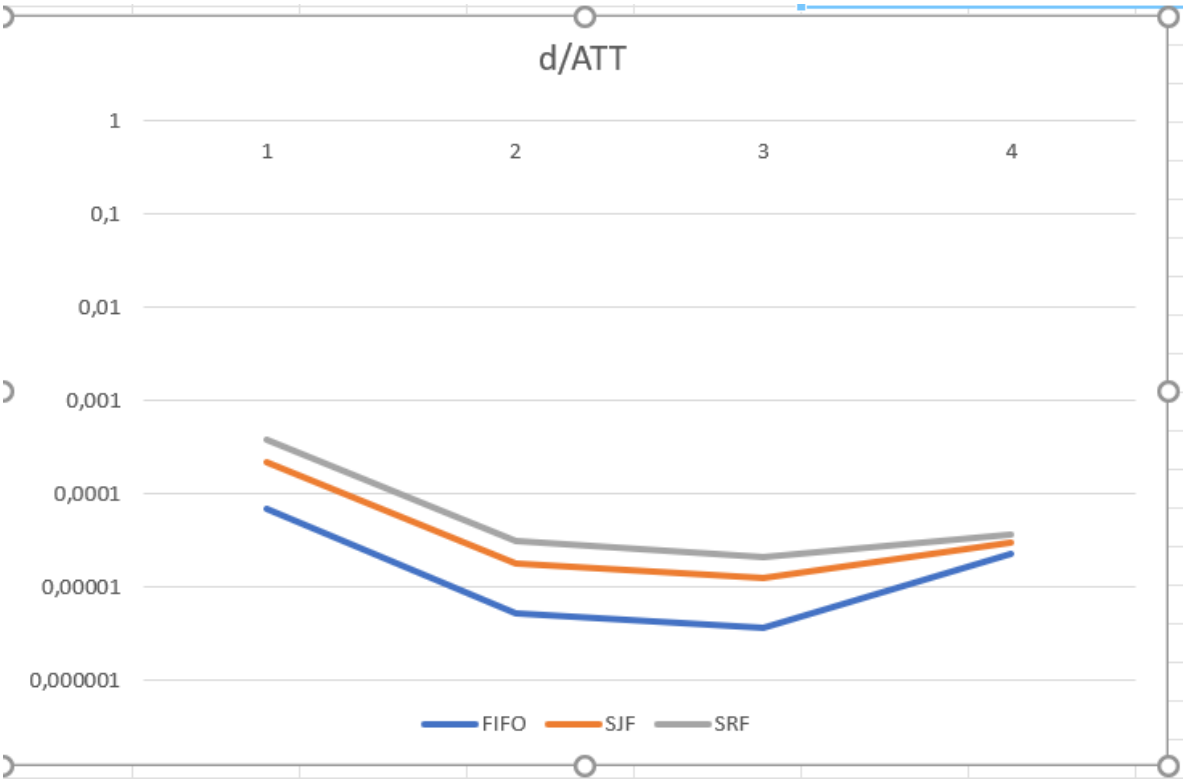
SRF

Another similar algorithm is the SRF is the shortest remaining work. that is, the one with the least work left to do is the first to leave. this is also a preemptive way to solve the problem.

MLF

MLF is an algorithm that is based on a queue of priorities where the first ones to leave are the ones with the highest priority, if they have the same priority it is reduced to a round robin or a fifo round robin is that two processes running on time little by little each one to finish.

In the simulations the time of use of the CPU is going to be assigned in a random Gaussian way and the creation times in a uniform random way and after that several test cases are plotted.



The behavior of SRF and SJF is very similar, but FIFO is worse than the two in comparison since it makes the processes spend much more time in comparison.

Compile simulation: gcc manny.c -o manny.exe

Run simulation: manny,exe n v k d verbose

Example: manny,exe 100 300 5000 5 0