Project #1 Report

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# Introduction

The purpose of this project is to simulate different scheduling algorithms at work. The algorithms we used were FIFO, SJF, and RR.

We created a process class which held the arrival time, wait time, pid, number of cyles and memory footprint. Then each process object was stored into a “map” C++ container and referenced by its pid.

# Algorithm: FIFO

This algorithm was implemented by looping from the first process to the last process. Since each process arrives 50 cycles after the previous one, the order of the processes is already correct for FIFO. First, the wait time of each process is determined by the current overall execution time of the system. Then, the overall time is increased by the number of cycles of that process. Next, the total wait time of the system is increased by the current process’ wait time. Last, the overall time is increased by a context switch if not currently on the last process.