

The program for Lab_08 begins by reading in a csv file named “process.txt”. Each line of this file contains the pid, arrival_time, and priority of some arbitrary process. As the lines are read from the file the pid, arrival_time, and priority of each process is placed into a process structure and, once filled, that structure is placed into a process array. The process array is then passed to the qsort function with an arrival_time compare function or a priority compare function. The arrival time function compares the arrival time of the two process structures passed in. If the first argument is greater, it will return a positive integer, if they are equal a zero is returned, and if it is less than the second argument a negative number is returned. As for the priority compare function, it operates almost the same as the arrival time function, however if they priorities of two compared processes are the same, the one with the lowest arrival time is selected and a negative number is returned to give it a higher priority than the process which arrived later. Finally, once qsort returns, the arrays are printed to the screen to be viewed and inspected by the user.