Lab 4 Report

Queues:

One type of queue used by the process dispatchere is the FIFO, or First In First Out queue. This queue is used for running Real-Time priority processes, as well as 3 more queues for each of the 3 levels of the User-Level priority processes. These queues will be implemented as linked lists.

Memory Allocation Algorithm:

Let memory represent an array of 1024 values

Let n represent the amount of memory a process requires

int allocateMemory (int n)

for i in range(0..length(memory)-64)

if memory[i] == 0

if i+n > length(memory)-64

return -1

for j in range(i..i+n)

if memory[j] == 0

memory[j] = 1

else

for k in range (j..i), k-- // iterate backwards

memory[k] = 0

return -1

return i