**CECS 326-05**

Operating Systems

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Assignment 1

Due Date: 2/11/2020

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Program Description:

This program simulates memory allocation on a paged memory system. Users at any time can select to execute one of four options:

1. Initiate a new process

2. Print the state of the system

3. Terminate the process that has a user specified process ID (PID)

4. Exit

If the user selections option 1:

- A process size is randomly generated using the std rand() function

- A new process is created by dynamic memory allocation

- The process gets allocated in the memory block table

- The process gets added to the ready queue

If the user selections option 2:

- An 8x64 table is printed to show which memory blocks are currently in use by a process

- Each ready process’s ID, size, and page table are printed

If the user selections option 3:

- The ready queue is iterated over until the element with the process ID is found

- The once it is found, it is removed from the queue and the memory block table is updated

- The process is deallocated

If the user selections option 4:

- All remaining processes are deallocated

- The program quits