**CECS 326-01**

# Operating Systems

## Matthew Zaldana (ID 027008928)

## Assignment 3

### Due Date: 10/12/2021

### Submission Date: 10/11/2021

# Program Description

1. master.c is a file that implements Linux shared memory. This allows it to control its child process slave.c when forked. Essentially, master asks for the number of child processes to create followed by a shared memory segment of a specific name. It creates the number of child processes inputted from the commandline and waits for each child process named slave to terminate. Once all processes are done, master will show the content that has been saved to the shared memory, remove everything and exit.

2. master.c is in charge of getting the input from the command line and creating the number of processes. It uses fork() and exec() calls to create the child processes and passes in to each child their process number and the shared memory name also given by the user. Master.c is also in charge of exiting the program once all child processes have terminated. However, before doing so, it will output the content of the shared memory to the console and dump whatever is in it. Then it will exit. Slave.c is given a child number and the shared memory name and is responsible of outputting this to the screen as well as notifying master that it has completed its process which it then terminates. It makes sure that its program has closed access to shared memory so that it may not read write to memory once it has terminated.