

**San Jose State University**  
**Computer Engineering Department**  
**CMPE 142: Operating Systems**  
**Fall 2018 Programming Project 5**

Full Name: \_\_\_\_\_ GID \_\_\_\_\_

In this project you will create a program called producer-consumer.c that will do the following:

- 1.-when the -p command line argument is passed, it will act as a producer
- 2.-when the -c command line argument is passed, it will act as a consumer
- 3.-the message produced by the producer will be given by the command line argument -m "string"
- 4.-the depth of the queue used by your producer consumer solution will be given by the -q integer command line argument combination.
- 5.-Your program will either use unix socket (-u) or shared memory (-s) depending on user input in the command line argument
- 6.-Your program must use linux semaphores to protect critical sections.
- 7.-when given the -e option, your program should print the string being produced or consumed followed by a new line each time the string is produced or consumed.

Violation of any of the requirements above may result in zero credit.