POSIX Message Queue

This homework will require you to write an application in C that writes messages into a POSIX message queue and then reads them back out. The program should be continually reading from the queue on a separate thread while reading input from the user to write into the queue.

- 1. Your program **shall** meet the basic requirements listed below:
 - (a) Your program **shall** print reasonable error information.
 - (b) Your program **shall** terminate after encountering an unrecoverable error (after printing error information).
 - (c) You **shall** submit all source code and a makefile in a tar file.
 - i. The makefile **shall** be able to build your source in a 32 bit Lubuntu VM.
 - ii. The built program **shall** be able to run in a 32 bit x86 Lubuntu VM.
- 2. Your program shall read input from the user continuously until the user enters quit.
- 3. Your program shall put all input from the user into a POSIX message queue.
- 4. Your program **shall** continuously read from the POSIX message queue on a separate thread. The thread used to read input from the user should not be used to read the queue.
- 5. Your program **shall** print each message read from the message queue to the screen.