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**Main Files (.src directory)**

Q1) consumerProducer.cpp

* Uses two threads which one produces characters while the other prints them out and takes them out of the buffer. Semaphores and mutexes were used to synchronize it so that if the buffer were full the producer will wait, if the buffer were empty the consumer will wait, and it if is neither full or empty then it both threads will be running at the same time.

Q2) mh.cpp

* Uses two threads to simulate parents taking care of their children and by using a semaphore and mutex it synchronizes the threads, so they repeat chronological.

Q3) airline.cpp

* Uses multiple threads to simulate the process passengers would experience at an airport and uses semaphores and mutexes to synchronize the threads.

**(main directory)**

makefile

* Ran by executing ‘./makefile’ in the command line. Creates executables of all the project files.