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OS, Assignment 2

- 1) You need two different types of synchronisation tools to properly model this process.
 - a) Mutex: Required to ensure that only one thread is accessing the queue of passengers. This is to prevent a race condition where two threads read a value at once, and overwrite each other's "target value"
 - b) Semaphores: Used to ensure that the queue doesn't overflow or "underflow". Essentially, semaphores ensure that the number of passengers in the queue is properly communicated between all threads. This is to prevent a taxi from "dequeing" when there are no passengers in the queue.
- 2) Run for 10 hours
 - a) 2,100 see 2_100_Test1.txt
 - b) 5,10 see 5_10_Test2.txt
 - c) 10,2 see 10_2_Test3.txt
- 3) I believe my code operates correctly