[Problem 2] Modify multithreaded JAVA code for Garage Parking Problem of **lecture4-1.ppt** (Slide 48) into C code with pthread library. This means you should write a multi-threaded C code ˙prob2.c˙ using pthread library (Use LINUX or cygwin environment). You should use mutex lock and conditional variables to correctly implement it. (As implemented in sample JAVA code, assume that the number of free parking space in the garage is 10, and there can be 40 cars.)

compilation example> `gcc prob2.c -lpthread`

execution example> `a.out`

```
Car 38: entered
Car 21: entered
Car 12: entered
Car 22: entered
Car 23: left
Car 5: entered
Car 32: entered
Car 28: entered
Car 18: entered
Car 5: left
Car 37: entered
Car 22: left
Car 35: entered
   ...
```