GRIFFITH COLLEGE DUBLIN

Course: Concurrent Development
Module: CD
Semester: Semester I
Assignment Number: Assignment 3 Distributed Concurrency
Date of Title Issue: 18th. Nov 2021
Assignment Deadline: 5th Dec 2021
Assignment Weighting: 15/50
Please state the assignment title / brief. Please specify details such as:
Answer the questions on the accompanying sheet.
Learning Outcomes
Please state the programme and related module learning outcomes that this assignment is assessing. 1,2,4,5,6
Assessment Criteria

Please state the assessment criteria applied to this assignment, such as: Correctness of the work. Presentation, including compliance with the specified file format. Evidence of critical thinking and analysis. Originality, quality and thoroughness of the work. Research correct academic approach. Proper treatment of sources.

Academic Dishonesty: All of your assignments need to represent your own effort. Assignments should be done without consultation with other students and you should not share your source code with others. Any assignment submitted that is essentially the same, as someone else's will not be accepted. **ALL matching assignments will receive 0 credits.**

A car sales company requires a server to store all its car data and share it between its sales personnel. For the purposes of this assignment each car has the following attributes: registration, make, price, mileage and forSale (use a boolean- true for forSale and false for sold). Clients can do the following:

-A sales person can add a new car to the system.
-Sell a car
-Request information from the system.
Sample requests would be cars for sale, cars of a given make, total value of all sales.

All cars added to the system should be stored in a shared data structure on the server. Your task is to build a working model of this system.
Notes
1. No log on/off required for users.
2. For this assignment you should add approximately 15 cars to the system.
3. Server should use thread pool and semaphores to limit users to 50
4. All requests to server must be objects
5. Cars added on server must be thread safe as many clients have conflicting requests

Sample output on moodle.