Data Modelling and Databases I. Assignment 1.

Link to the paper:

Requirements using shall-statements

1. A system shall allow the users to register by entering their full name, username, e-mail, phone number and location of residence.
2. A system shall allow users to log in with their unique username.
3. A system shall allow users to find the nearest car.
4. A system shall allow users to find a car with required characteristics.
5. A system shall provide an ability for users to rent a self-driving vehicle.
6. A system shall allow user to choose start and destination points.
7. A system shall provide an ability for users to find the nearest free charging station according to GPS location, which shape and size of plug is suitable for the car.
8. A system shall provide an ability for Cars to find the closest workshop which has neccessary car parts.
9. A system shall allow managers to regularly check amount of parts in Workshops.
10. A system shall allow managers to order car parts from provider of them to one or more workshops.
11. A system shall charge a fee from user's credit card after the end of the ride according to the car's price and the time of a ride.
12. System shall store information that every user is identified by unique username, and has a full name, e-mail, location of residence (Country, City, Zip code) and a phone number.
13. System shall store information that every charging station is identified by UID and has a GPS location, amount of available sockets, price/cost of regarding charging amount, shape and size of plugs, time of charging.
14. System shall store information that every workshop is identified by WID and has a workshop location, car parts available according to the car type and availability of timing.
15. System shall store information that every provider of car parts is identified by unique company ID and has a name, address, phone number and types of car part which the provider provides.

16. System shall store information that every car is identified by CID and has a location, model, price.