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Entities:

- Customer
- Charging station
- Workshop
- Car part distributor

Added

- Cars

Parts

Car orders

Repair orders

Parts orders ars

- Parts
- Car orders
- Repair orders
- Parts orders
- Charge orders

Shall statements:

System should provide:

- ability to customer order car
- ability to workshops order parts
- ability to customer order repairment for a car
- ability to car order charging
- ability to car accept order from customer
- ability to workshop accept repair order from customer
- ability to charging station accept order from car

System must have cars.
Cars:

- UID
- GPS location
- Current charge amount
- Model

Parts:

- UID
- Name
- Supported models
- Type of parts

When customer creates order creates record of car order entity. Because of not enough requirements we decided to create car order as independent entity, it helps to search more easily and for smoother future system improvement.
Car order:

- UID
- Customer
- Car
- Starting location
- Destination
- Time

When car is broken the user creates repair order. The user will get a new car while the nearest and the freest workshop will take car to repairment.
Repair order:

- UID
- Customer
- Car UID

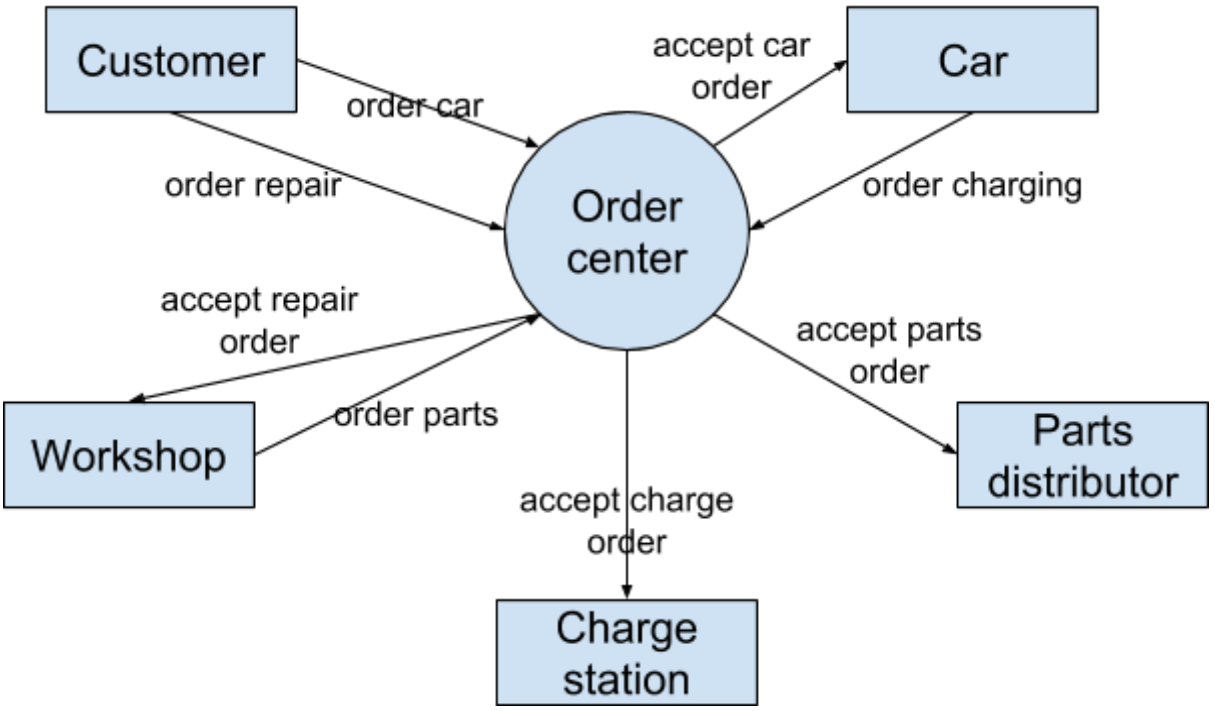
When workshop needs some parts for the cars it creates the parts order.
Parts order:

- UID
- Workshop
- Parts

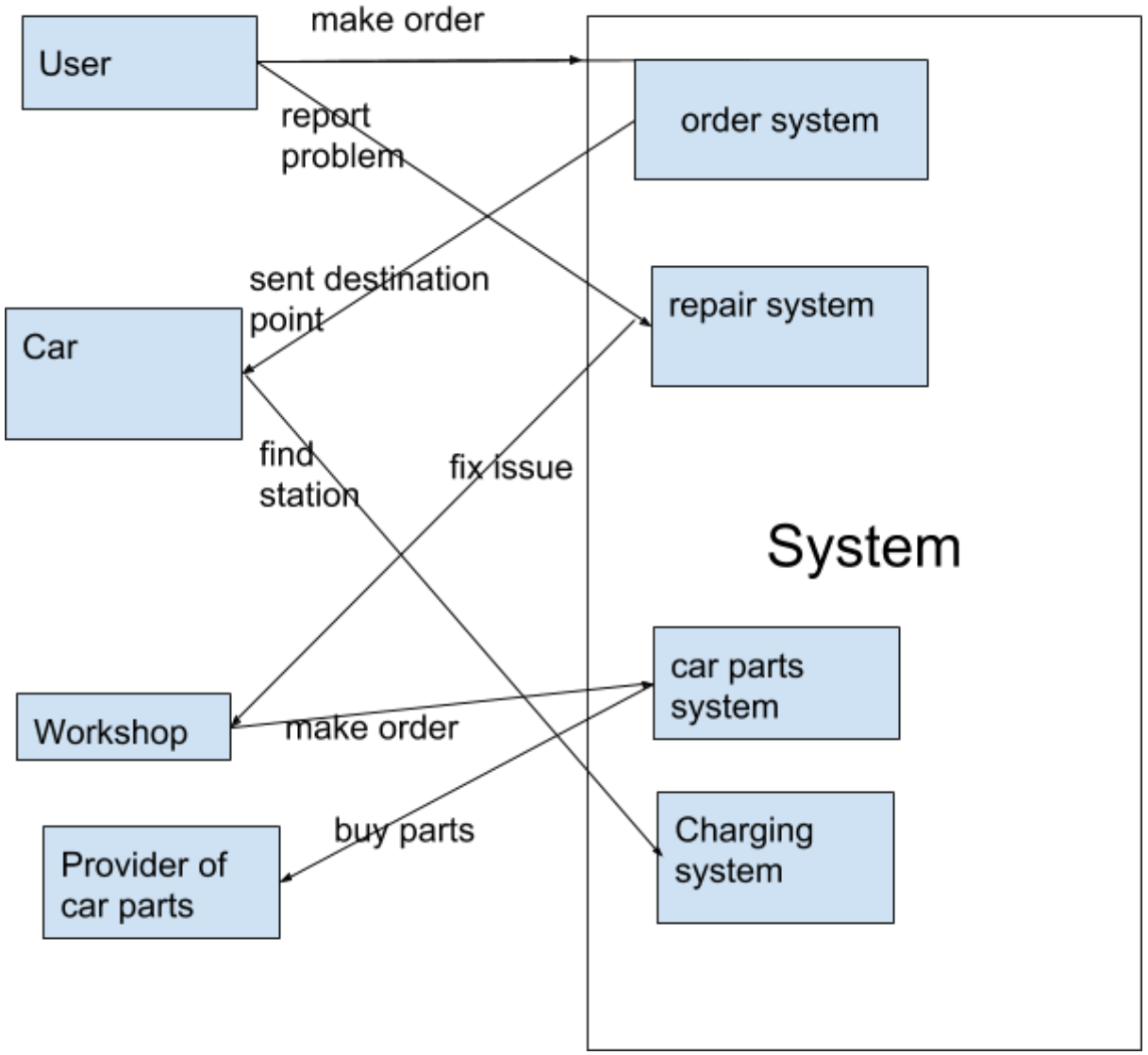
We know that self-driving using electricity, so it will be great if our system give information about all charge station and interaction with them. This information useful to bookkeeping.
Charge station orders:

- UID
  Car
  Price
  Time

Context diagram:

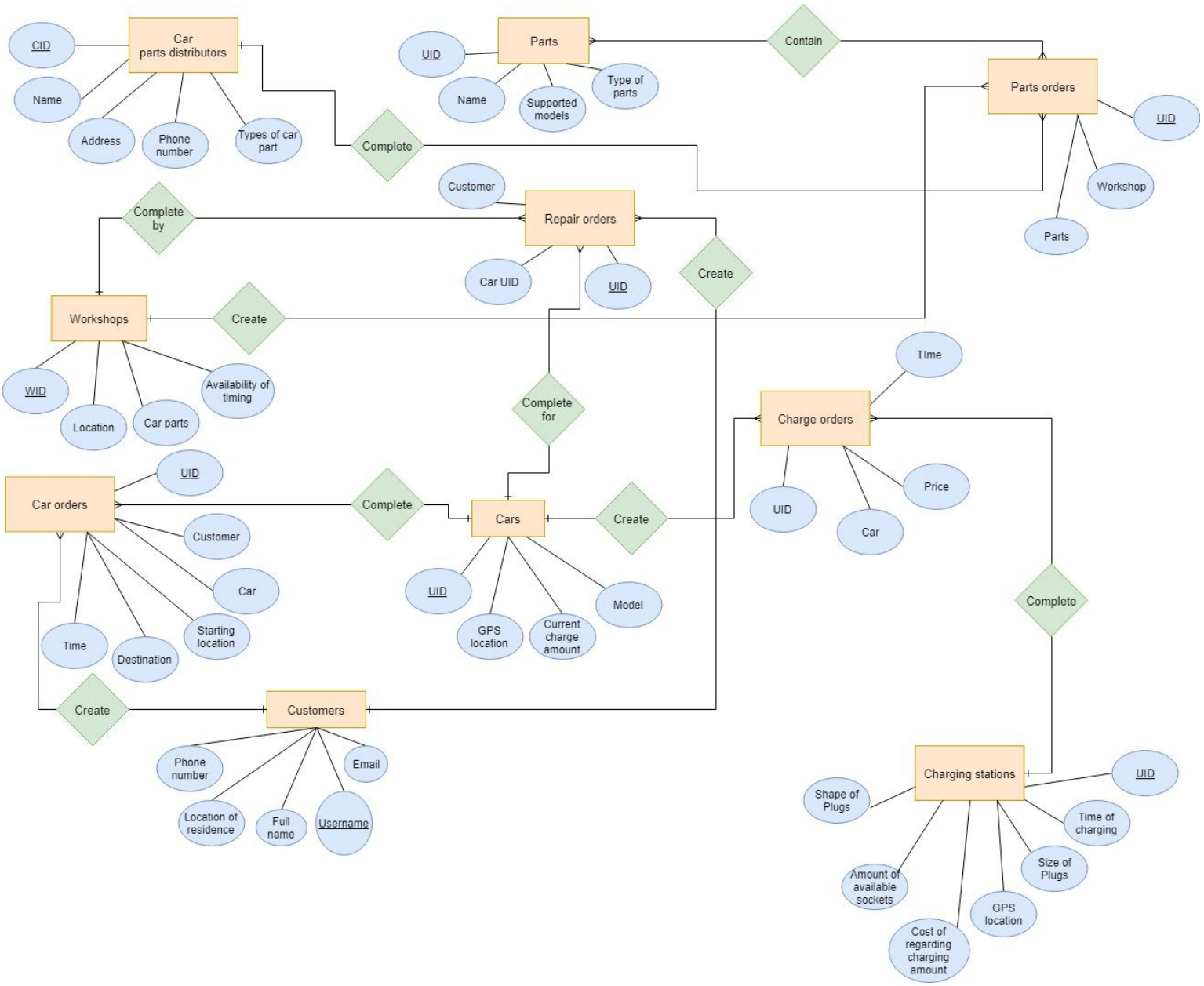


Use case diagram:



Domain description

- Cars have attributes UID, GPS location, a current charge amount, model.
- Parts have a UID, a name, a supported models, a type of parts
- Customers have a full name, an username, an email, a location of residence (Country, City, Zip code), phone number
- Charging stations have GPS location, amount of available sockets, price or cost of regarding charging amount, a shape and size of plugs, a time of charging
- Workshops have a location, a car parts available according to the car type, an availability of timing
- Providers of car parts have a name of the provider, an address of the provider, a phone number of the provider, a types of car part which the provider provides
- Car orders have an UID, a customer who made order, a car starting location, a destination time
- Repair orders have UID, a customer id , a car id
- Parts orders have UID, a workshop id, a parts
- Charge station orders UID, a car id, a price, a time
- Each car order created by only one customer
- Each repair order created by only one customer. For example car has been broken on the road and it cannot by itself send request to repair.
- Each charge order created by only one car
- Each repair order completed for one car
- Each car order completed by one car
- Multiple parts order contain multiple parts
- Each parts order completed by only one car part distributor
- One workshop can create multiple parts orders
- Each repair order can be completed by only one workshop
- Each charge order can be completed by one charging station



1. Install python3
2. Install pip
3. Install flask (pip install flask || python -m pip install flask)
4. Go to project folder
5. Write export FLASK_APP=queries.py
6. flask run (python -m flask run)
7. Go to browser (http://127.0.0.1:5000 should be)
8. Turn on tatar music and check our queries