Domain Description

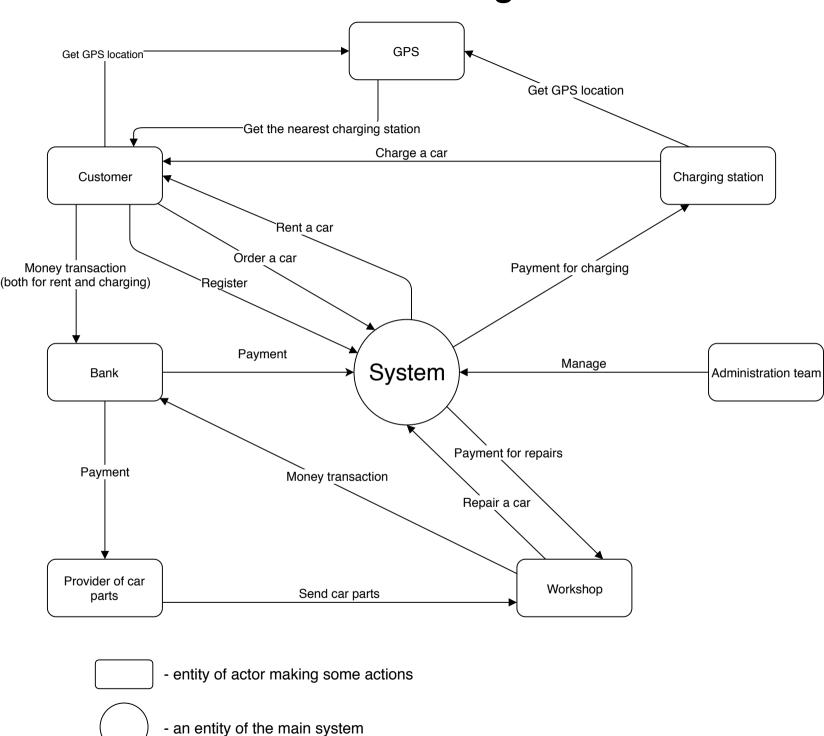
This is a database design for a company that provides car-sharing services. Here below you can find the shall statements describing the system. Other files of the project archive contain the context and the use-case diagrams.

Shall Statements

- 1. *The system shall provide the ability for a customer to **register for an account** with the full name, a unique username, an email, the location of residence and the phone number.
- 2. The system shall provide the ability for a customer to **rent a self-driving car** to get from starting point A to destination B.
- 3. The system shall provide the ability for a customer to **pay for all services** of using a self-driving car with **a bank account**.
- 4. *The system shall store information about the company's charging stations: GPS location, amount of available sockets, price per some charging amount, shape and size of plugs, charging speed of each plug.
- 5. *The system shall store information about each self-driving car: a unique registration number, a model, specifications info, the rent price, charging plug type.
- 6. The system shall provide the ability for a customer to get **the nearest charging station**'s location using a **GPS** service.
- 7. The system shall provide the ability for charging stations to **charge** self-driving cars of customers for some **payment**.
- 8. The system shall provide the ability for **customers to pay** for charging their self-driving cars and the payment shall go to a charging station.
- 9. *The system shall store information about the company's workshops: GPS location, car parts available according to the car type, availability of timing.
- 10. The system shall provide the ability for workshops to **repair** self-driving cars of the company.
- 11. The system shall provide the ability for workshops to have several providers of car parts each of them providing with some types of car parts for some payment.
- 12. The system shall **fund workshops** for car parts that they **report** to purchase.
- 13.*The system shall identify each provider with a unique company id, a name, an address and a phone number.
- 14. The system shall provide the ability for the **administration team** to manage the system.

^{*} The shall statement with * (star) contain information about attributes. However, they might NOT be used in the context and use-case diagrams because, according to the styles of diagrams, it is not mandatory for entities to contain attributes.

Context Diagram



Action or data flow _ - movement of action or data flow

Use-case Diagram get locations service send location send **Get GPS** charge Charging Get the nearest station location charging station send location Charge car accept give to charge place an order Order car Pay for Admin charging team Customer register for account confirm order pay Manage Registration Pay for charge Pay for car confirm register account accept Give the car Report confirn payment System Bank a_{CCept} Send money for Report order Report payment car parts about car parts Pay for car parts pay confirm Order for car parts place an order Provider of car Workshop parts Send required Repair cars car parts - Actor making some actions - Action or data flow - Relation of the actor to the action Actor