# Assignment #2: ER-diagram

## 1. Overview

You are asked to produce a database design for a company that provides car-sharing services. Cars are self-driving and users can rent them to get from point A to destination B. In this part, you are required to produce and entity-relationship model. The specification below cannot be considered complete and you are encouraged to extend it (use domain description from Assignment #1).

## 2. Specifications

A car sharing company owns a park of self-driving vehicles. The company rents out the vehicles to customers who pay for the services.

Each customer is identified by a unique username and should have the following attributes:

- Full Name
- Username
- Email
- Location of residence (Country, City, Zip code)
- Phone Number

A company also runs a network of charging stations. There will be an option to find the nearest charging station according to the location. Each charging station is identified by a UID and should have the following attributes:

- GPS location
- Amount of available sockets
- Price or Cost of regarding charging amount
- Shape and Size of Plugs
- Time of charging

A company also runs workshops which repair cars. Workshops have providers of car parts which are from other companies. Each workshop is identified by WID and should have the following attributes:

- Workshop location
- Car parts available according to the car type
- Availability of timing

There is also a provider of car parts who provides car parts to workshops. Each provider has unique company id and should have the following attributes:

- Name of the provider
- Address of the provider
- Phone number of the provider
- Types of car part which the provider provides

Use domain description (the output of Assignment #1) as the rest of the specification, including interactions between customers and cars, customers and the company, cars and charging stations, and workshops and providers.

## 3. Goals

*1)* Create an ER-diagram: based on your domain description from Assignment #1, provide an entity-relationship diagram. Motivate and explain any choices you made. *NOTE: please use the UML or Bachman notation in your diagrams.*

## 4. Deliverables

1) A PDF document with your ER-diagram
2) A PDF document with the explanation of your design decisions
3) A PDF document with the domain description from Assignment #1

## 5. Grading

1) Correctness - 50%
2) Completeness - 50%