



# PowerEnjoy Project

## RASD presentation

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- Goals
- Constraints
- Assumptions
- Requirements Analysis
- Scenarios
- Use Cases
- Class Diagram
- Alloy Model



## The driver can

- Register/log into the system
- Locate available cars within a distance around a position
- Reserve a car for up to 1hour
- Unlock a reserved car if he is close enough and pick it up
- Enable the saving money option and give his destination

## The system should

- Start charging once the car ignites
- Stop charging once the car is parked in a safe area
- Apply discounts/charges according to the driver's ride
- Provide a power grid station to the driver selecting the saving money option
- Inform the driver of the cost in real time
- Provide the price of the ride at the end



- Ensure safety of driver details and transactions
- The system is compliant with local laws about drivers' details
- The system can work with most of online mean of payment



## The driver

- Has a driver license, piece of identity, mean of payment, smartphone with localization system
- Is legally responsible for his actions
- Will ignite the engine after unlock it
- Provides reliable details

## The system

- Can communicate with the car at anytime, anywhere (knows its position...)
- Can only be accessed by the smartphone application
- Knows the position of safe areas, special parking areas and power grid stations



## The car

- The car position can be known at anytime, anywhere
- Can count the passengers number
- Provides an interface to communicate with the driver
- Is set to unavailable by the maintenance service when it is damaged

## The company

- Has a maintenance and insurance service for cars
- Provides a sufficient amount of safe areas/power grid stations to cover the city

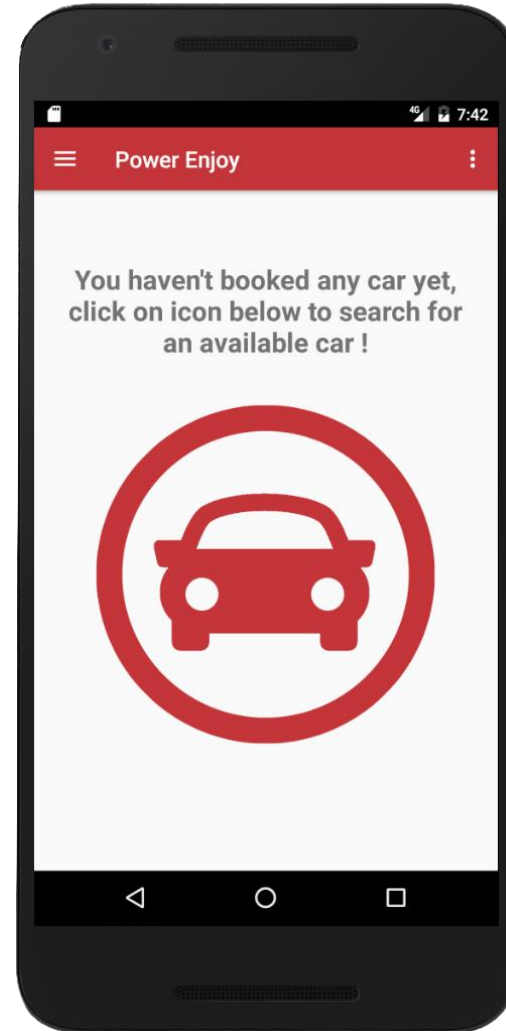
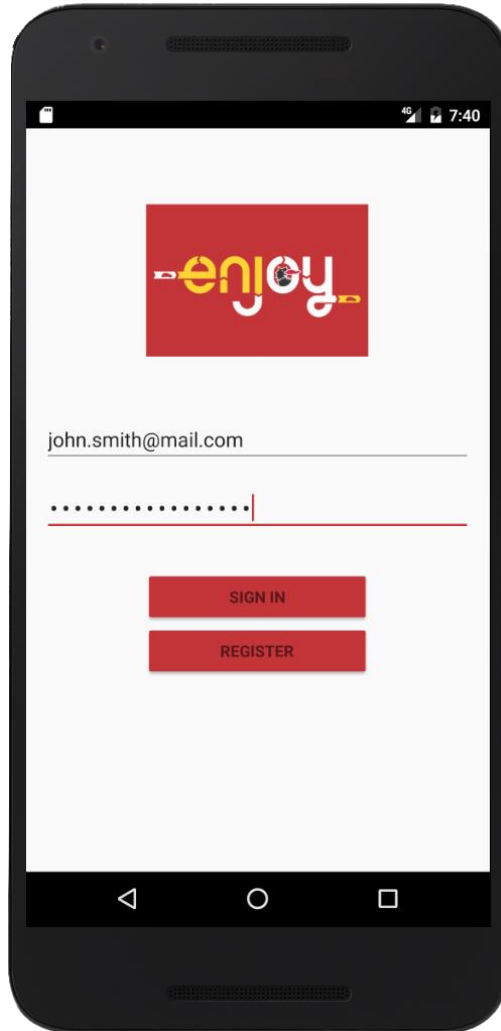


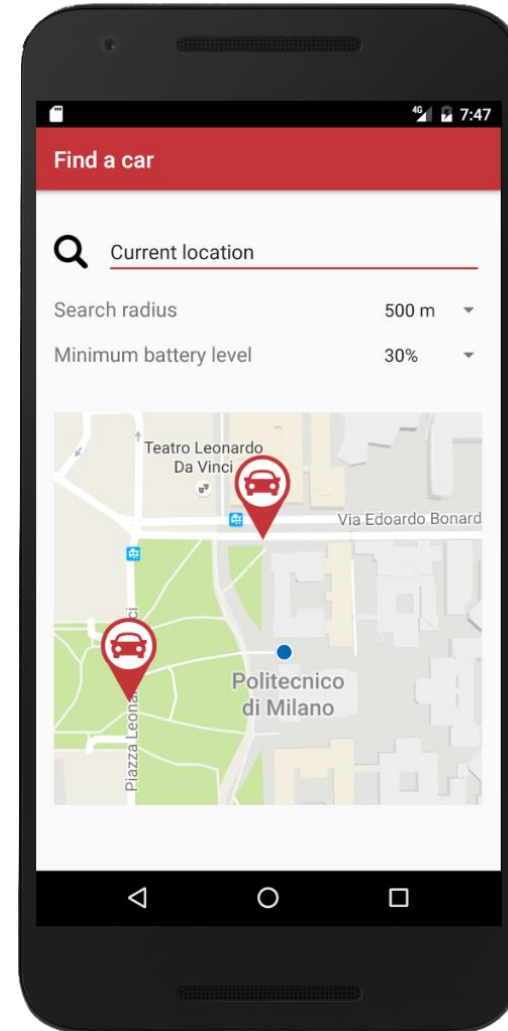
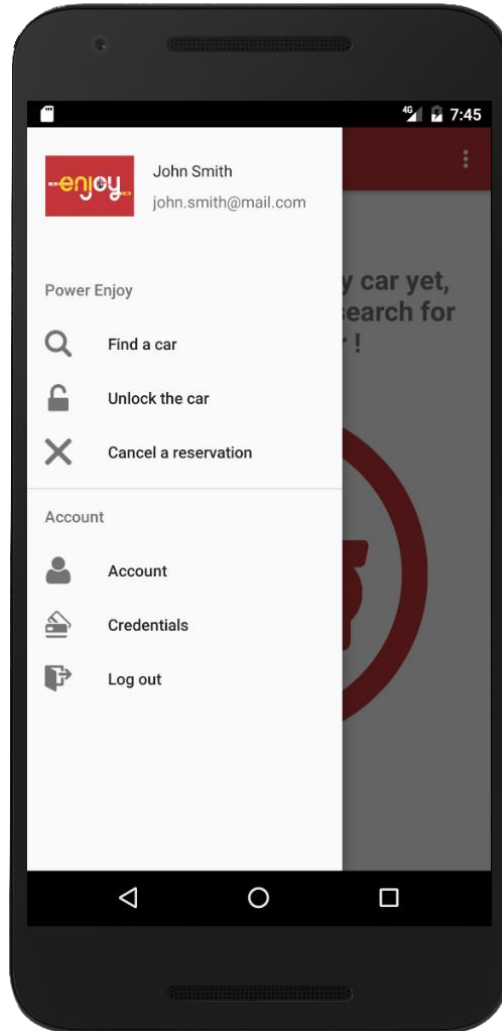
- Management of driver's details and access
- Security/Confidentiality for registration, log in and payment
- Management of car and drivers status
- Management of reservation and reservation fee's
- Management of car's access for the driver
- Management of the different areas in the system
- Management of ride and eventually discounts
- Management of car's battery level
- Communication with car

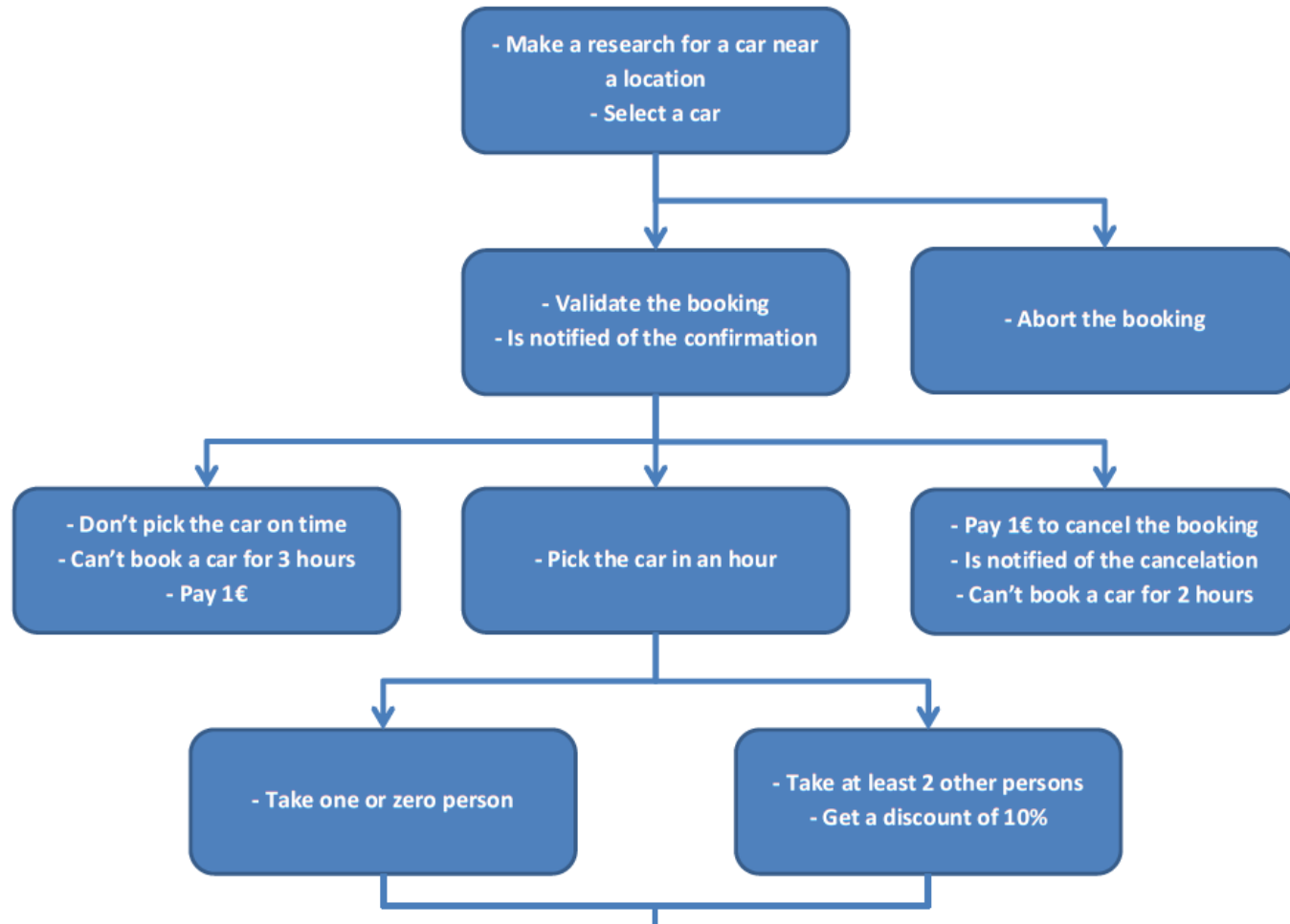


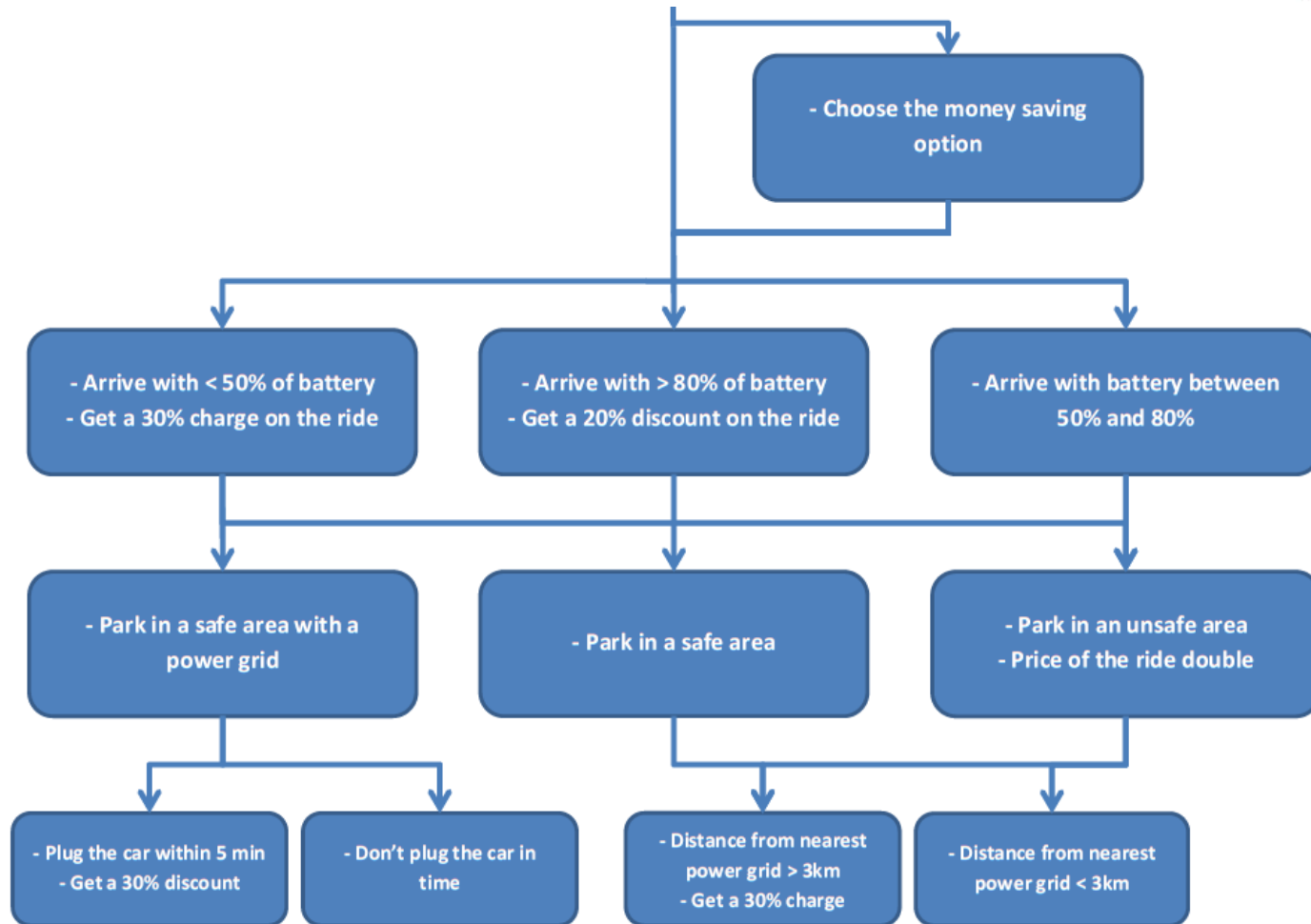
- Algorithm to provide available cars to drivers
- Algorithm to provide destination mixing distributions of cars and drivers' final destinations

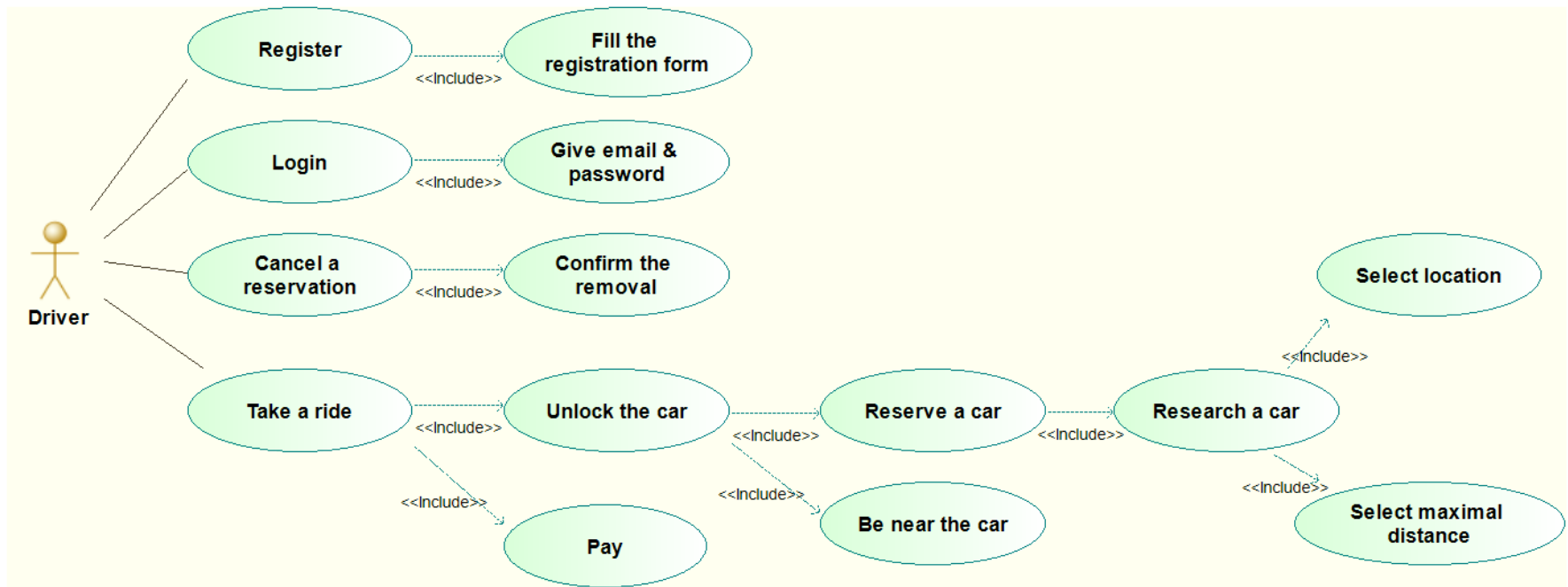


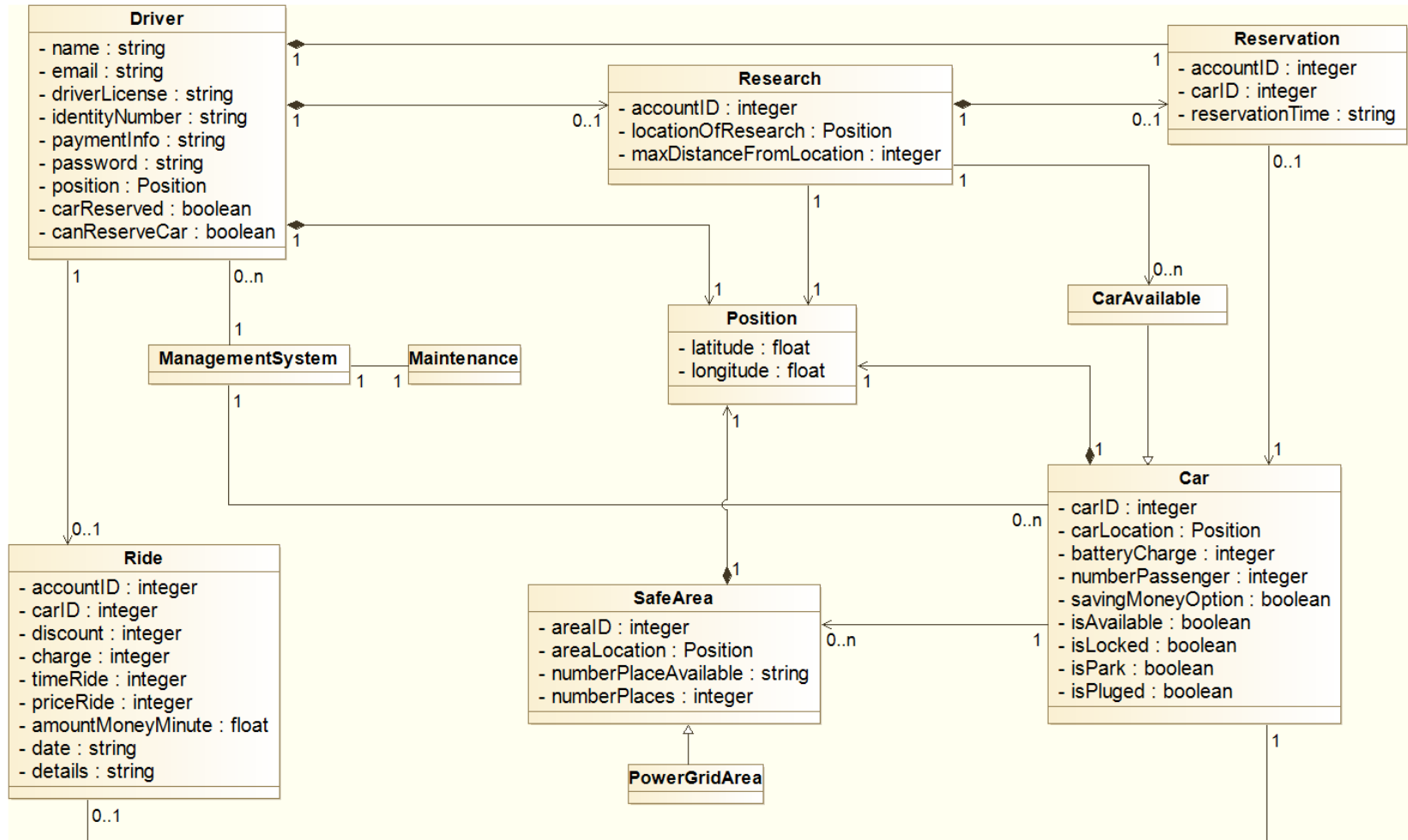


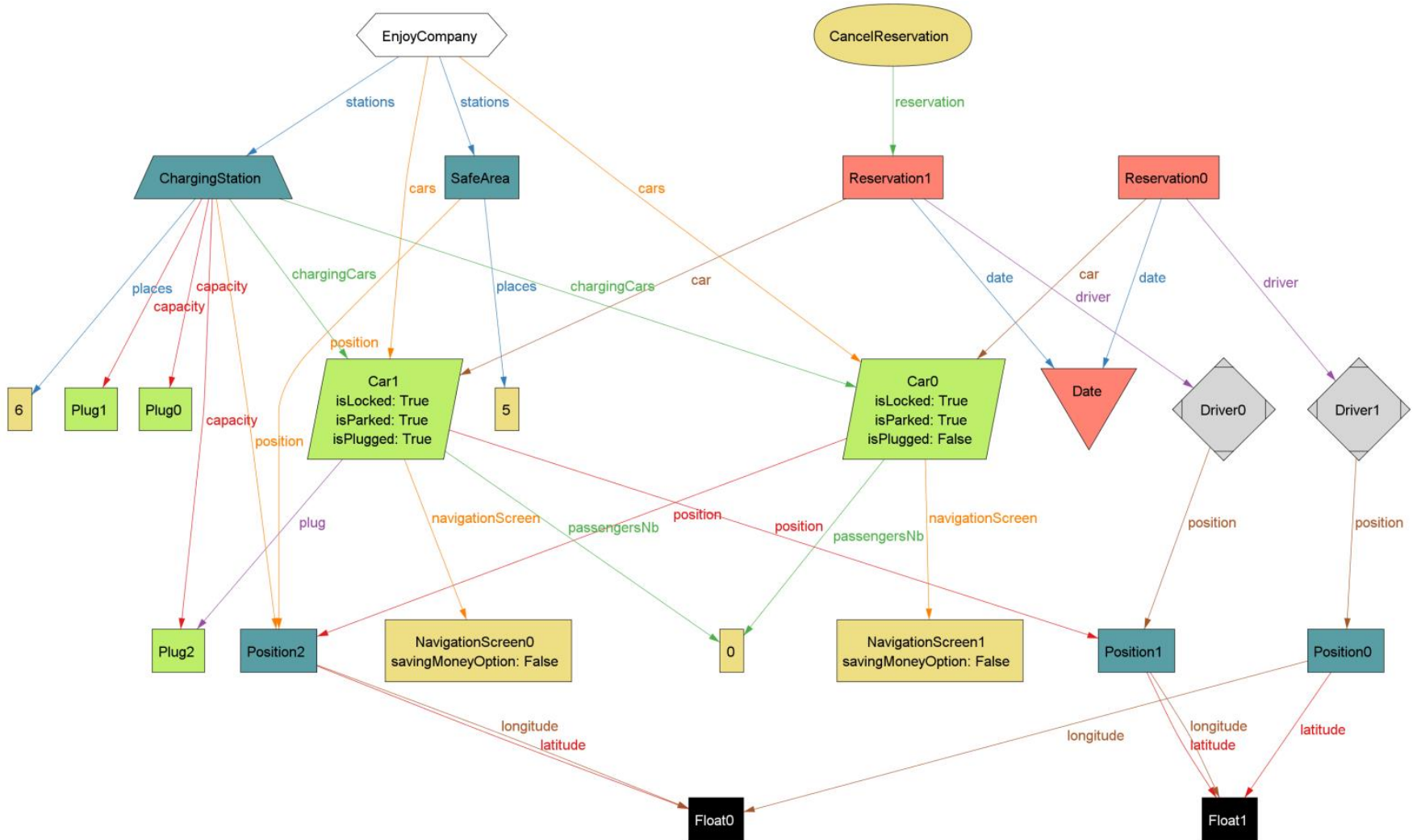
















# Thank you

