Kingdom of Saudi Arabia
Ministry of education
Prince Sattam Bin Abdulaziz University
College of computer engineering
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المملكة العربية السعودية
وزارة التعليم
جامعة الأمير سطام بن عبد العزيز
كلية هندسة وعلوم الحاسب

Project:
Wsslini Application

Supervised By:

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Chapter1: Feasibility Study &Project Proposal

Introduction

In 2018, Saudi Arabia allows the women driving, leading to the introduction of transportation services tailored for female passengers. These services provide a safer and more comfortable experience. This has also led to an increase in employment opportunities for women and meets the need for privacy in mobility. The introduction of women's taxis has reinforced the idea of women's empowerment in Saudi society.

Problems

Women have difficulty adhering to a job at a given time, which makes it difficult to find a source of good material income for them. Some women who prefer privacy, either personally or in terms of any working woman, may not have enough time in the morning to take their children to school and need safe transportation away from harassment or harassment on public transport.

Background

Wsslini starts at Feb 2021, this app is the first taxi app dedicated and exclusively for Women in Saudi Arabia offering a safe, comfortable and exclusive service.

Proposed Solution

Based on the raised problems, a women's delivery app "Wsslini" has been proposed that ensures privacy for women who do not want to be with a strange man in the car and provides people with a safe way to transport their children without the need for facilities, as well as an opportunity for additional income for women who do not want to have a specific time to work.

Work Plan

To development this proposed system the incremental agile model methodology will be followed since it suitable for the application life cycle Since the idea of this application is to make the application the suitable for large segment of customers so it’s depending on

customers and will be developed continually based on their reviews. And also, the application will be divided to the many parts (for the divers and clients) and followed these phases:

1- The process starts with specification phase by defining what the system should do.
2- Then move to designing by defining the organization of the system and use UML diagrams.
3- Start with implementation phase which include making the code and the whole application.
4- After that the validation of the system will be done by checking that it does what is specified at the specification phase to be ready to release the first version of the application.

These phases will be repeated to reach the completed application finally the evaluation and development will be done in response to the customers reviews.

At any phase we may change the requirement design or any thing at the previous phase and the agile model is the most suitable model that helps at this type of work.

Chapter2: Project Requirements

Functional Requirements

1. **The system allows the client to order taxi.**
   1.1 The user confirms the start and end address.
   1.2 The user chooses payment method (cash-visa-master-pocket)
   1.3 The user views the all near taxis with the approximation cost.
   1.4 The user chooses the taxi and confirm the order.

2. **The system allows the client to rate the driver.**
   2.1 After completing the trip, the rate screen will appear to client.
   2.2 The clint choose the rate and enter the value from 1 to 5 stars.

3. **The system allows the client to view the old order detail.**
   3.1 The client can view the order from the menu by choosing my orders.
   3.2 All previous orders will be displayed.
   3.3 if choose one of them the detail (order ID - order date and time – car model – driver name- start and end location – cost) will be displayed.

4. **The system allows the driver to create new account.**
   4.1 The driver enters the phone number.
   4.2 The drivers get verification code to enter and continue.
   4.3 The app defines driver location.
   4.4 The driver enters the personal information (full name-birth date -NID- personal photo)
   4.5 The driver enters car information (car type (taxi or private) - car model – car color – car year – plate number – plate letter – capacity – car picture – another detail (condition – baby car seat- no/smoking – no/pet).
   4.6 The user upload required photo (drive license – driver ID – vehicle registration – vehicle insurance).

5. **The system allows the driver to receive orders.**
   5.1 The driver must define his status as connected.
   5.2 The driver defines the distance range of receiving the orders.
   5.3 The new order is sent to driver.

6. **The system allows the driver to accept order.**
   6.1 After receiving the order, the driver can view its information (start and end address).
   6.2 The driver can accept the order and go to get the client and start the trip.

7. **The system allows the client to track the driver.**
   7.1 After accepting the order by driver, the client can track the driver movement at real time.
   7.2 The notification is sent to client when the driver is arrived.

8. **The system allows the user to communicate with support.**
   8.1 Many supports types is available.
      8.1.1 send complaint it will send to app email.
      8.1.2 Communicate with contact number.
      8.1.3 Send rate for the application.

Non-Functional Requirements

Usability: The system should be easy to use by client and drivers and should be organized in such a way that user errors are minimized. So, there are no need for training time and can use the application directly with maximum 2 errors.

Maintainability: The system should be programmed and organized to be easy to maintain by using development life cycle principle, writhing clean code with a good comment and meaningful functions and variable names.

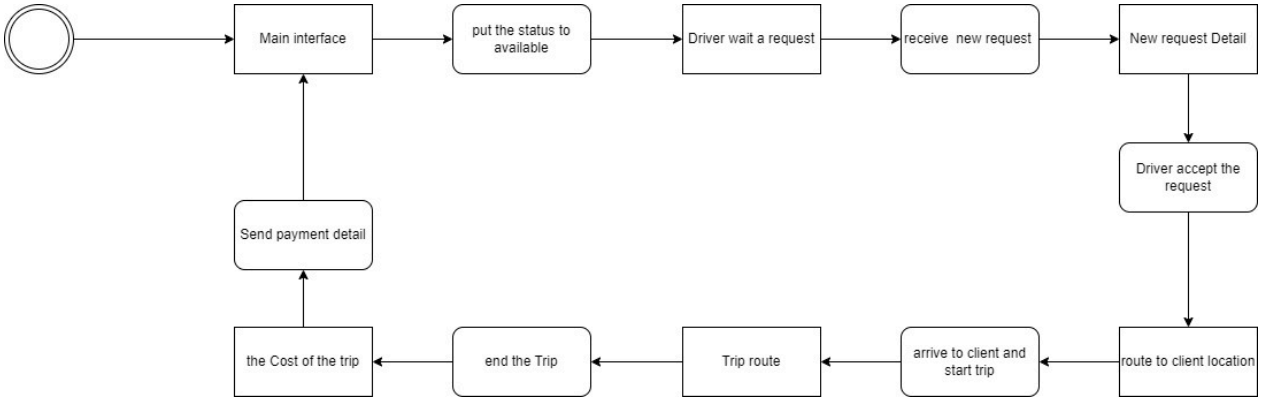
Compliance: The system should work under the local laws related to consumer rights, and transportation services in Saudi Arabia

Performance: The system should display the available drivers in maximum 10 seconds after defining the start and end location by the client.

Chapter3: System Design

Activity diagram

Driver order activity diagram



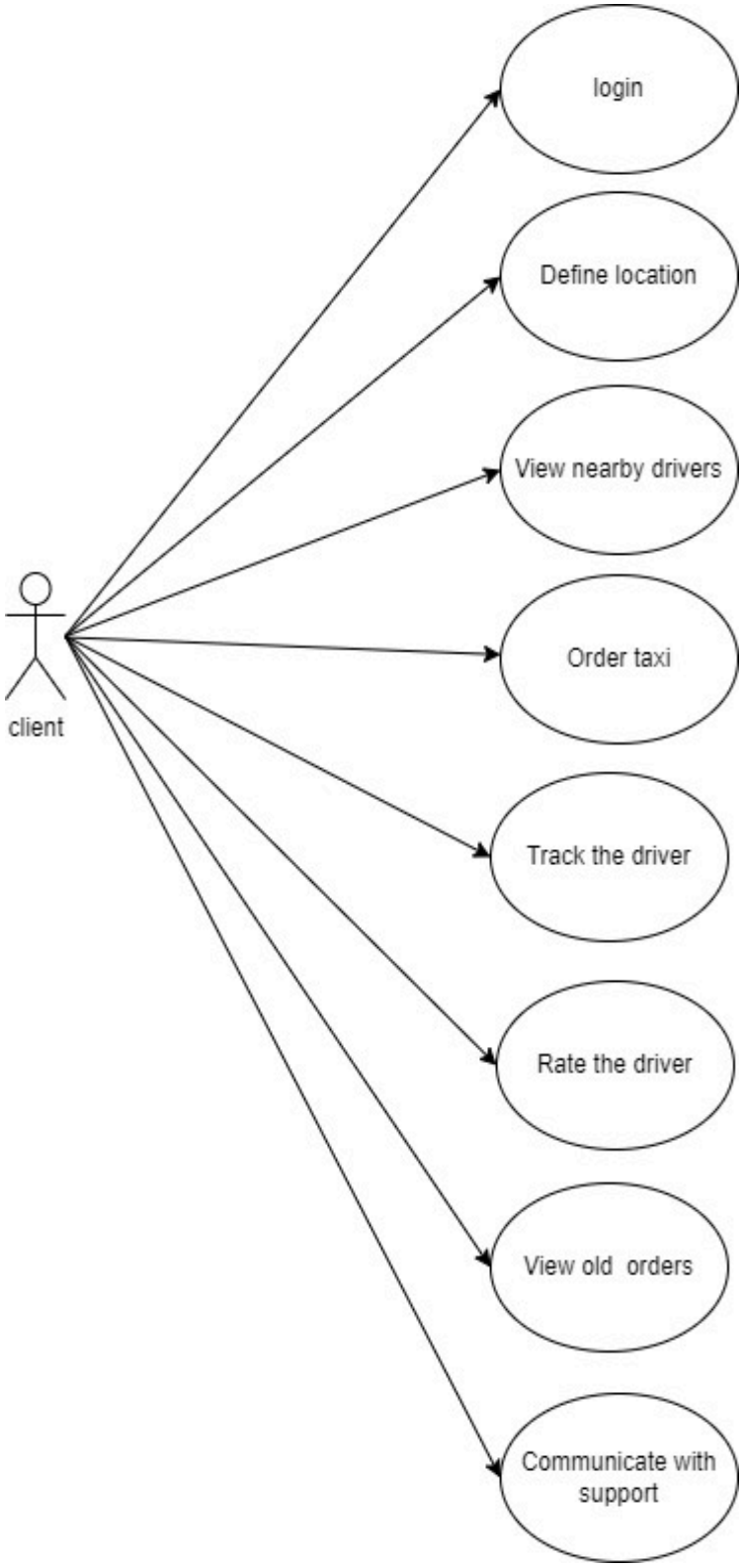
Project Use Case Modelling

Actors

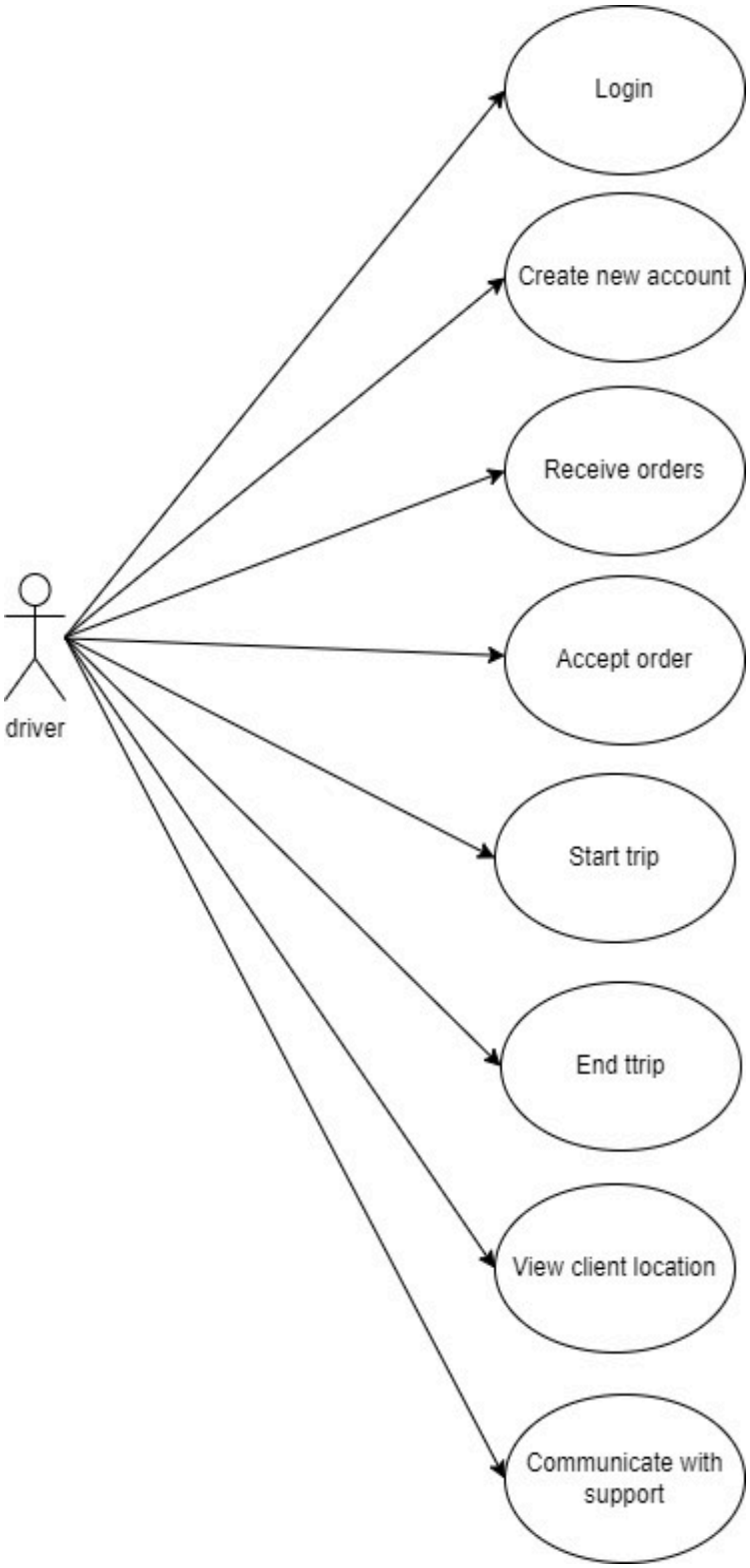
Actor	Roles
Client	- Login/logout - Define location - View nearby drivers - Order taxi - Track the driver - Rate the driver - View old orders - Communicate with support
Driver	- Create new account - Login/logout - Define location - Receive orders - Accept orders - View client location - Start trip - End trip - Communicate with support

Use case diagram

Client use case

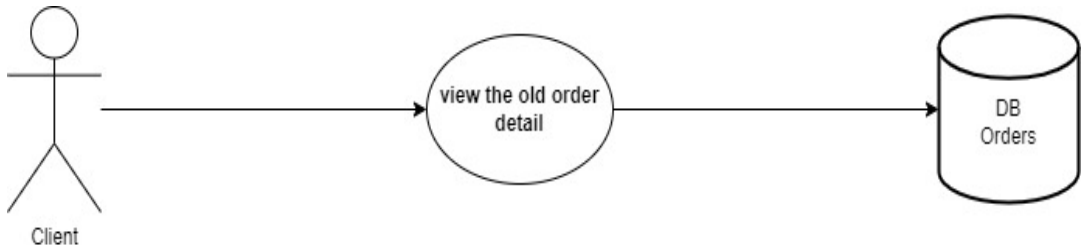


Driver use case



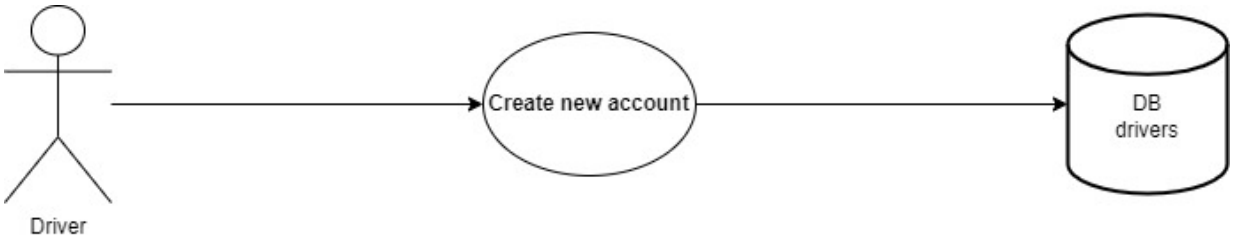
Use case description

View the old orders detail



Client: **view the old orders detail**	
Actor	Client and DB of orders
Description	This shows the interaction of client who want to view his old order detail by viewing all order then view the detail for one of them.
Data	Client ID, order ID
Stimulus	Client wants to view order detail
Response	Order information (order ID, order date and time, driver name, cost, start and end location)
Comment	None

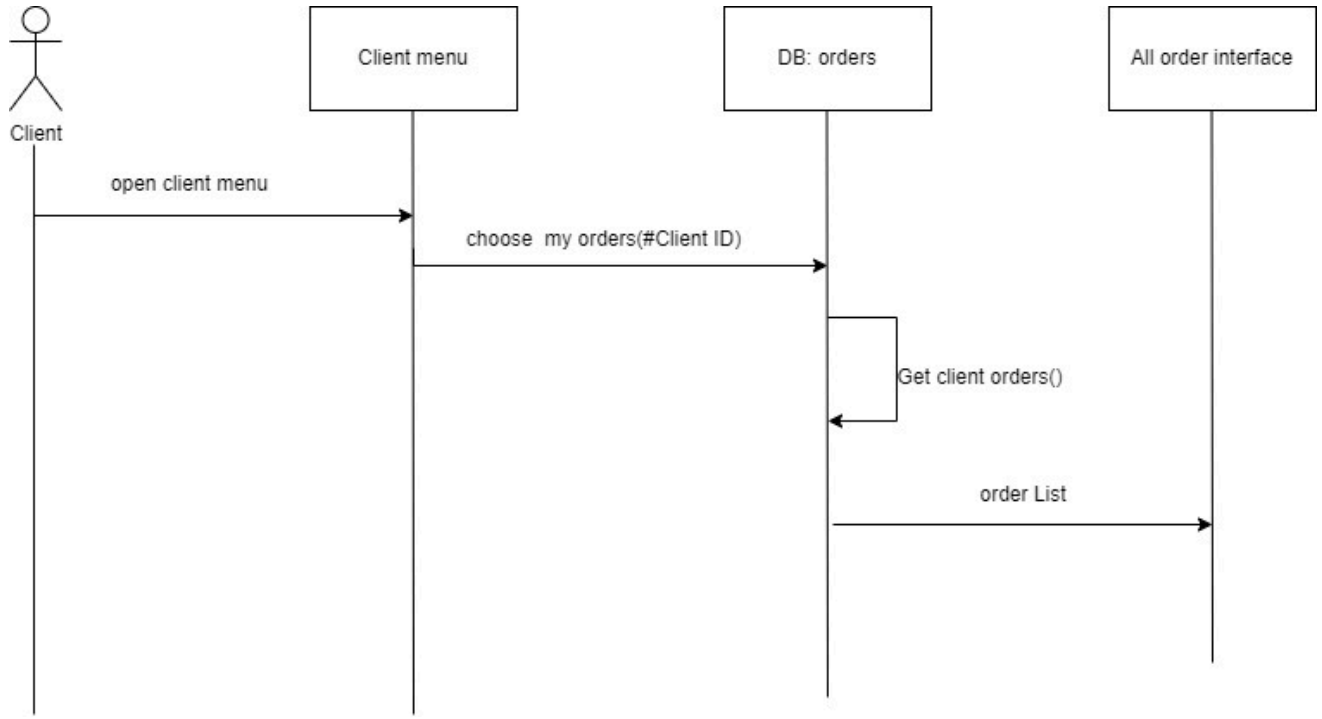
Create new account



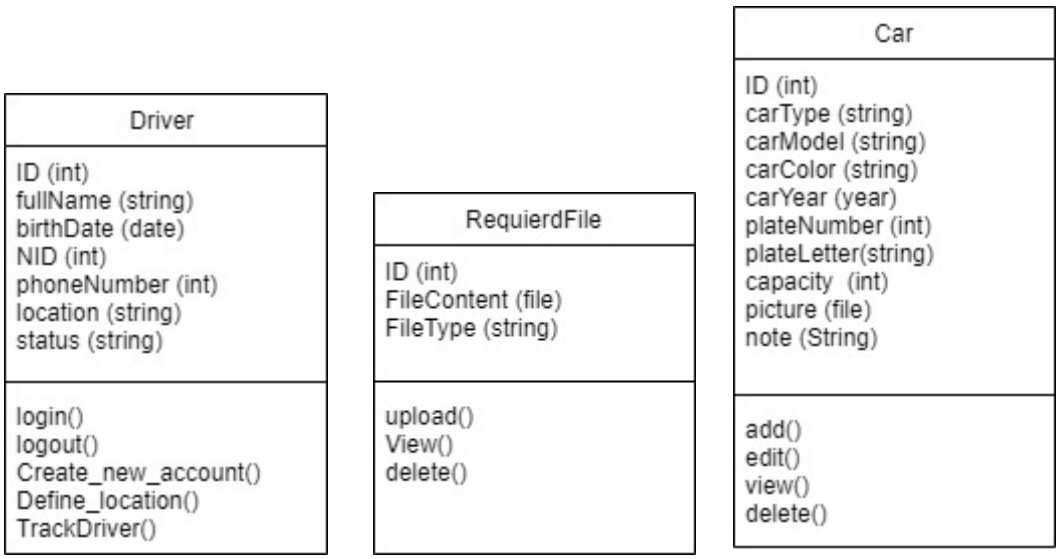
Driver: create new account	
Actor	Driver and DB of drivers
Description	This shows the process of creating driver account to wait the acceptance from the app admin to start the work as driver.
Data	full name-birth date -NID- personal photo car type (taxi or private) - car model – car color – car year – plate number – plate letter – capacity – car picture – another detail (condition – baby car seat- no/smoking – no/pet). drive license photo– driver ID photo– vehicle registration photo– vehicle insurance photo.
Stimulus	User want to work as driver in the application
Response	Save the data display Message (Create complete successfully wait for account verification)
Comment	All data must be correct.

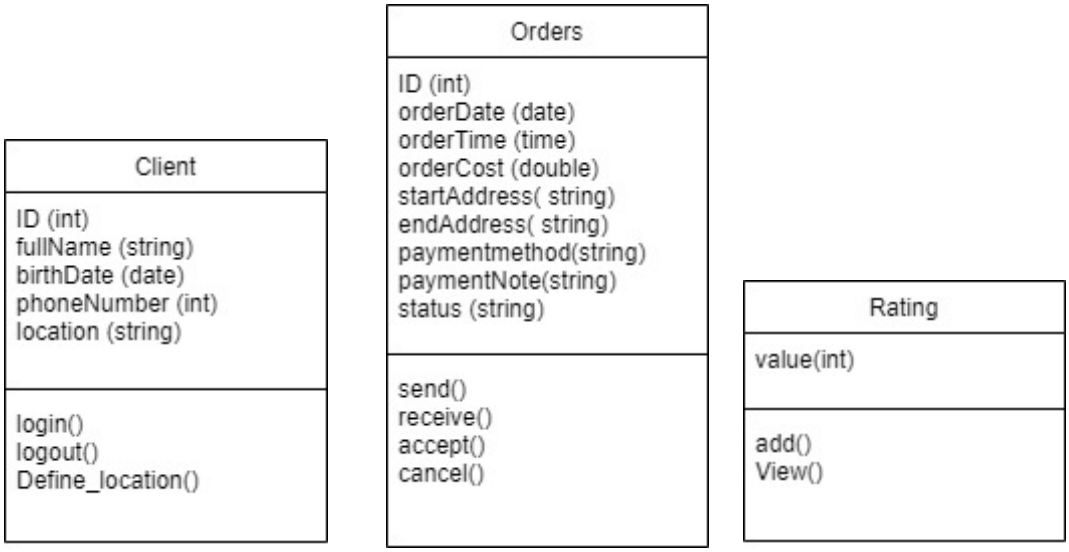
Sequence diagram

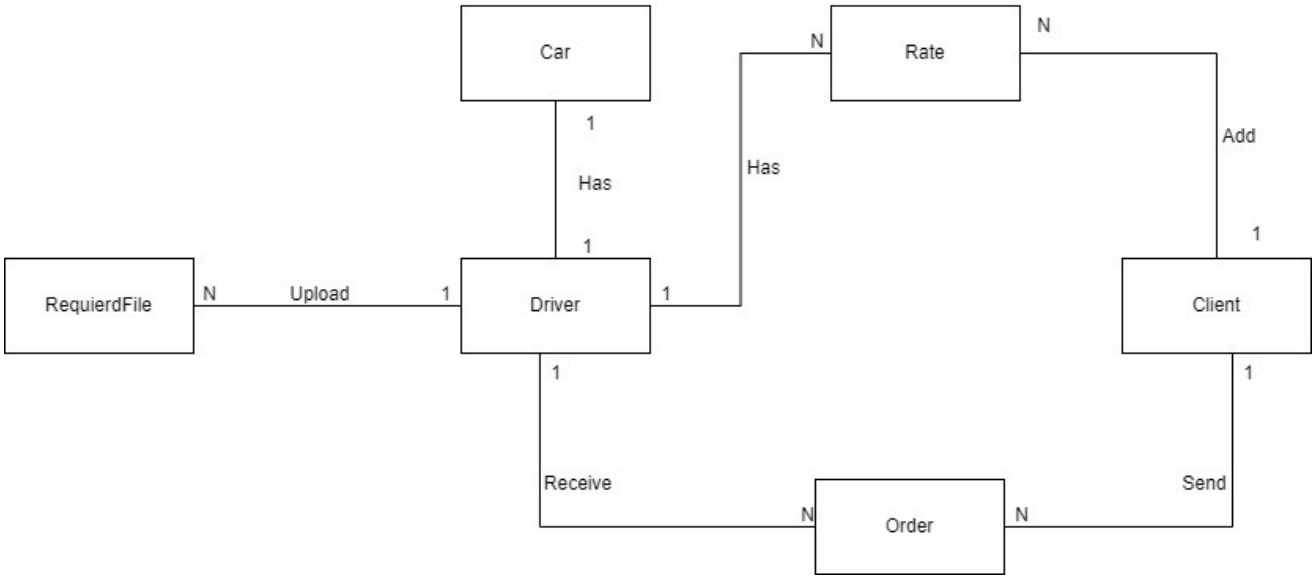
View old orders



Class diagram




Client
ID (int)
fullName (string)
birthDate (date)
phoneNumber (int)
location (string)
login()
logout()
Define_location()
Orders
ID (int)
orderDate (date)
orderTime (time)
orderCost (double)
startAddress(string)
endAddress(string)
paymentmethod(string)
paymentNote(string)
status (string)
send()
receive()
accept()
cancel()
Rating
value(int)
add()
View()


Car
Rate
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Has
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Upload
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Driver
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Client
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Receive
Send
N
Order
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