Saudi Arabia

Ministry of Education

Prince Sattam bin Abdulaziz University

College of Computer Engineering and Science

المملكة العربية السعودية

وزارة التعليم

جامعة الأمير سطام بن عبد العزيز

كلية هندسة وعلوم الحاسب

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PRINCE SATTAM BIN ABDULAZIZ UNIVERSITY

Project

App Uber

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Feasibility Study &Project Proposal

Mobility is very essential in our lives. It helps us explore the world and expand our horizons. We can move around for work, study, shopping and entertainment. Thanks to transportation. Statistics on transportation have reached that more than 1.4 billion people are transported around the world every day using public transportation.

Problems

There are many problems in transportation and mobility, sometimes it is difficult to find a quick car, and you have to wait in taxi queues that can take a long time. There are few transportation options available, and in addition, there have been some challenges regarding safety and trust in taxi drivers.

Background

Uber is a global technology company that provides transportation and mobility services via a mobile application. It was founded in 2009 in the USA and has become one of the largest transportation companies in the world. It allows users to order taxis and travel easily and comfortably in more than 900 cities around the world.

Proposed solution

The Uber application provides an innovative solution to the transportation problem. The application can be used to request a car at any time and from anywhere with ease. Through the application, you can request a car and specify the starting place and desired destination. You'll see driver information and ratings, and you can track the car during the trip. After completing the trip, you will be able to pay the cost through the application in different ways.

Work plan

Using the modern development model known as “Agile Development”. This model focuses on continuous collaboration between teams and continuous improvement of the application.

The process includes the following steps:

1. Determine requirements: Understand the needs of drivers and passengers and determine the features and functions required.
2. Interface design: Design an easy and convenient user interface for drivers and passengers to facilitate the booking and communication process.
3. Application development: Build the application and implement specific features, such as reservation system, navigation and secure payment.
4. Test and improve: Test the application to ensure its safety and stability, and collect user feedback to improve application performance.
5. Application launch: Publish the application in digital stores and advertise it to potential drivers and passengers.
6. Support and Updates: Providing technical support and regular updates to ensure continuity and improvement of the user experience.

Project requirements

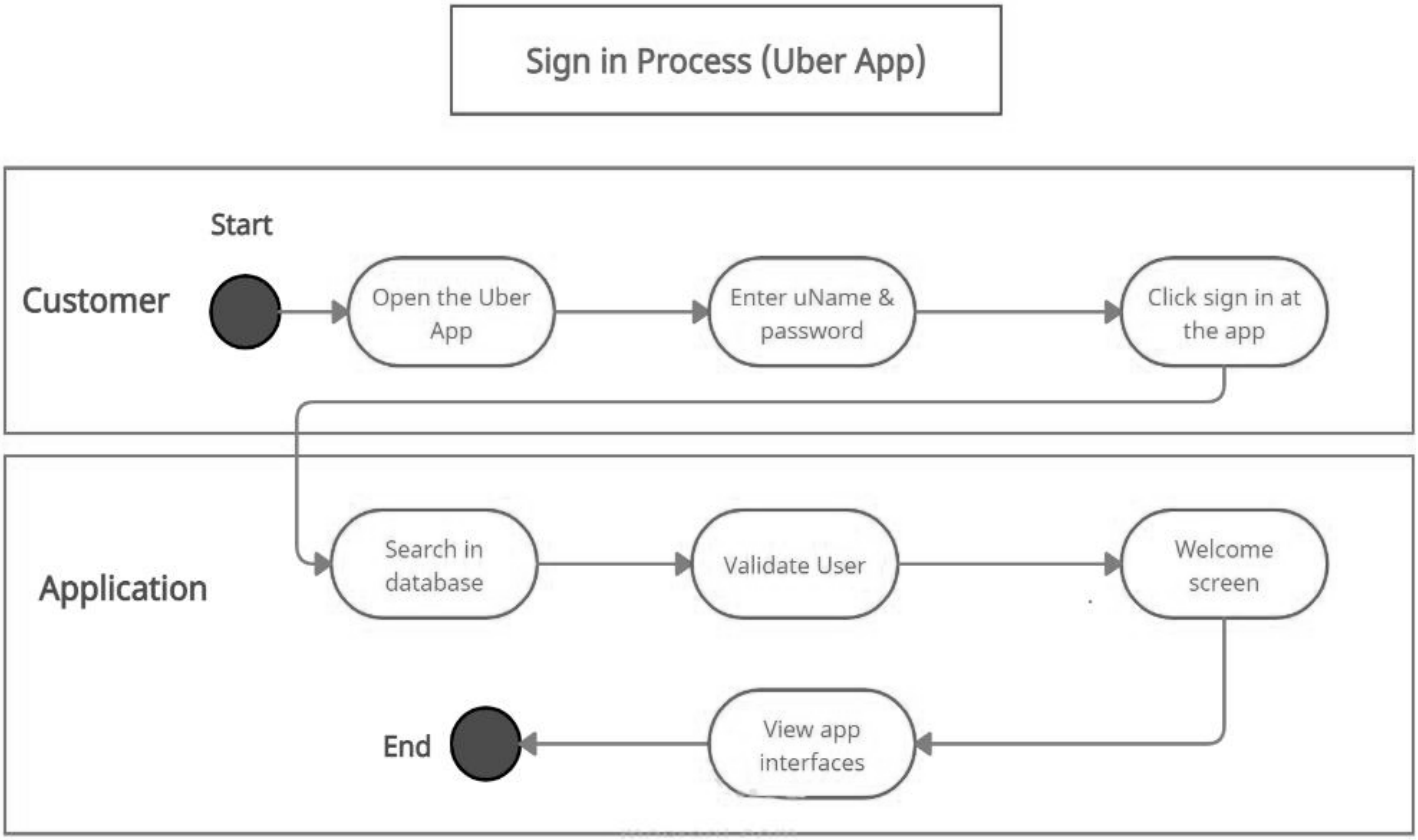
Functional requirements:

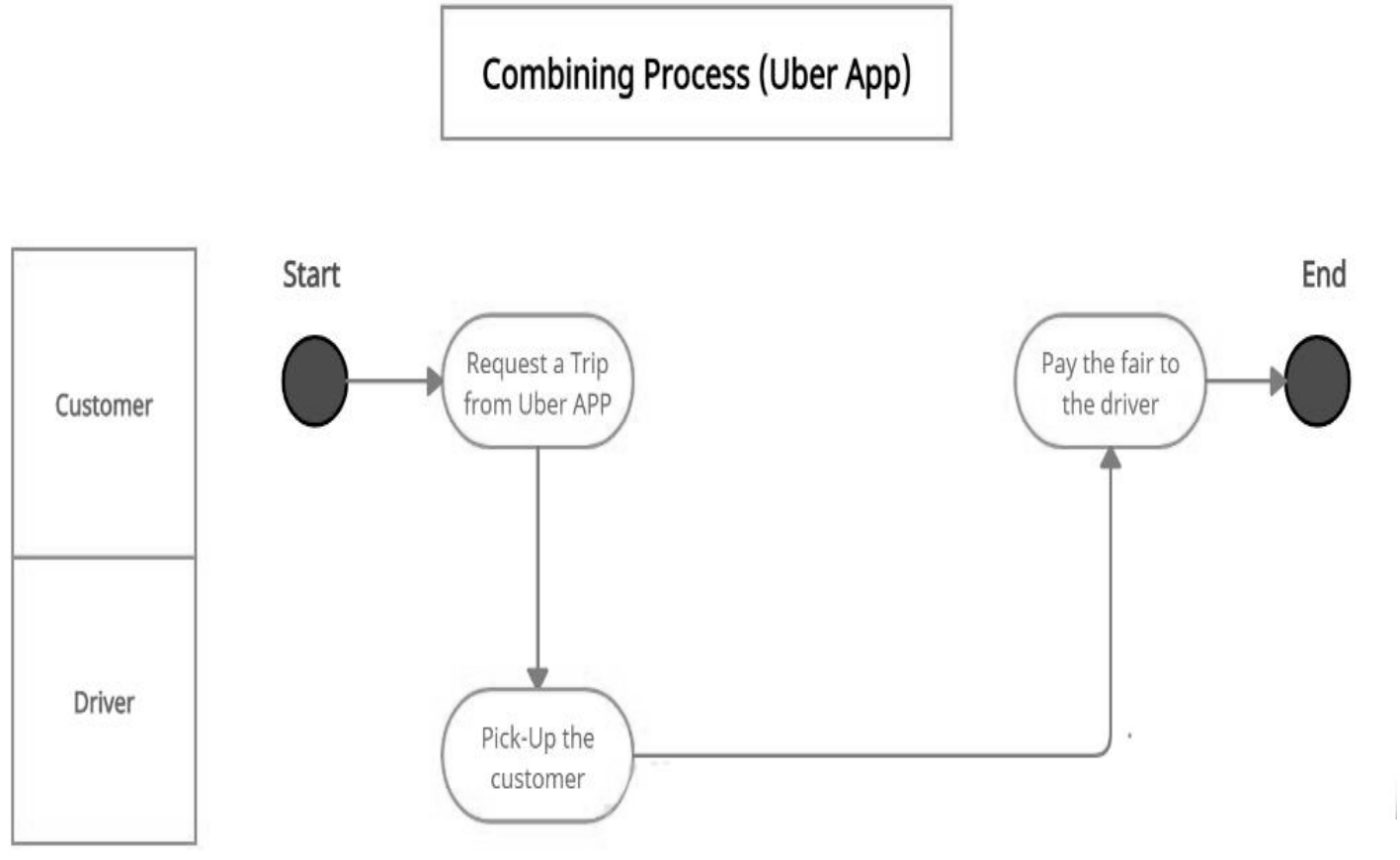
1. Create an Account: Users must have the ability to create and log in to an account.
2. Booking trips: Users should be able to easily book their trips and specify the start and destination location.
3. Location tracking: Drivers and users should be able to track each other's locations to find each other easily.
4. Rating and Review: Users should have the ability to rate and review drivers and rides to improve quality.
5. Secure Payment: The application must support safe and reliable payment methods to ensure ease and security of payments.
6. Customer Service: A customer support system should be available to users to answer their inquiries and help them solve problems.
7. Cost estimation system: The application should allow users to calculate the expected cost of a trip before booking it.
8. Car options: The application should allow users to choose their preferred type of car (such as luxury cars or family cars).

Non-functional requirements:

1. Security and Privacy: The application must be secure and protect the user's information and payment details.
2. User experience: The application should be easy to use and provide a comfortable experience to users while booking trips and car rides.
3. Support and Customer Service: There should be 24-hour customer support and service available to users to answer their inquiries and help them solve any problems they encounter.
4. Availability and Responsiveness: The app should be available in different regions and respond quickly to ride requests and reservations.
5. Diversity and Inclusion: The application should be accessible to everyone regardless of gender, age or physical abilities.

Activity diagram





Project Use Case Modelling

ACTOR	ROLES
Passenger	Login Choose a car Book flights Location tracking to push evaluation
Driver	Login Determine work hours Receiving requests Location tracking
Admin	Update user data Verifying the validity of financial transactions Trip monitoring Set prices

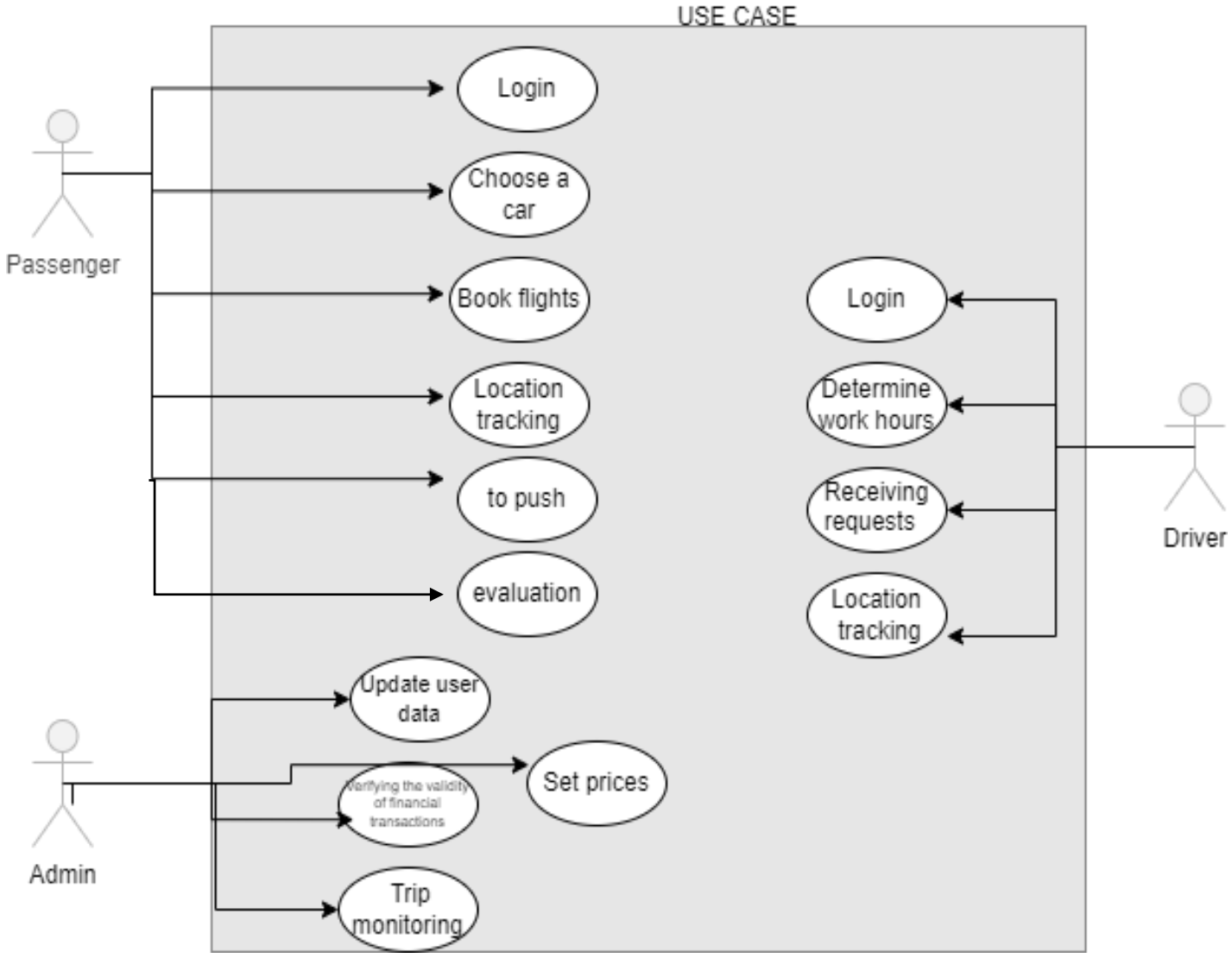


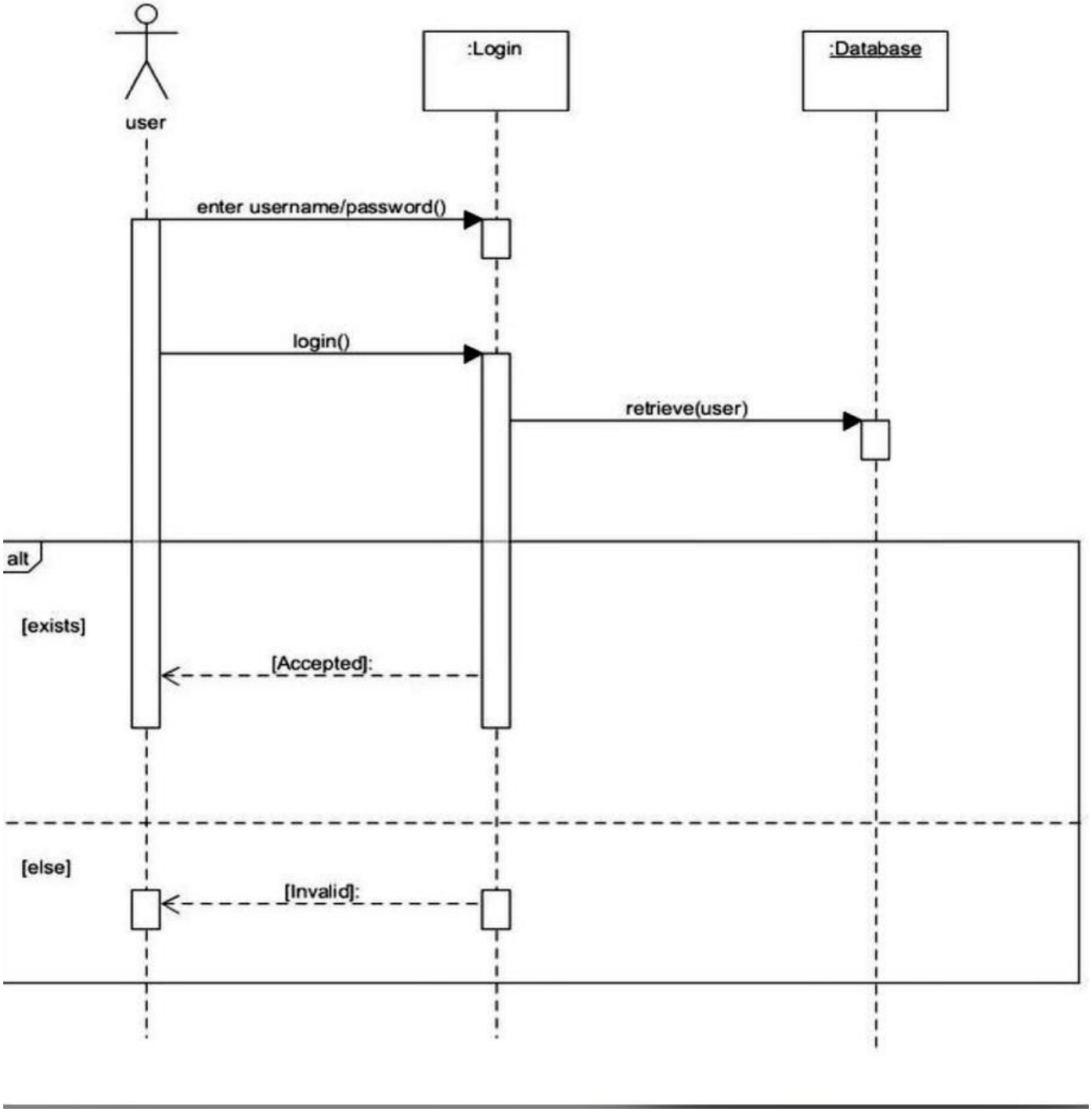
Table 1:

PASSENGER: LOGIN	
Actors	**Passenger and Database**
Description	**The user enters his email and password and then clicks Log in**
Data	**Email, password**
Stimulus	**The passenger wants to benefit from the application services**
Response	**Benefit from services such as requesting a car**

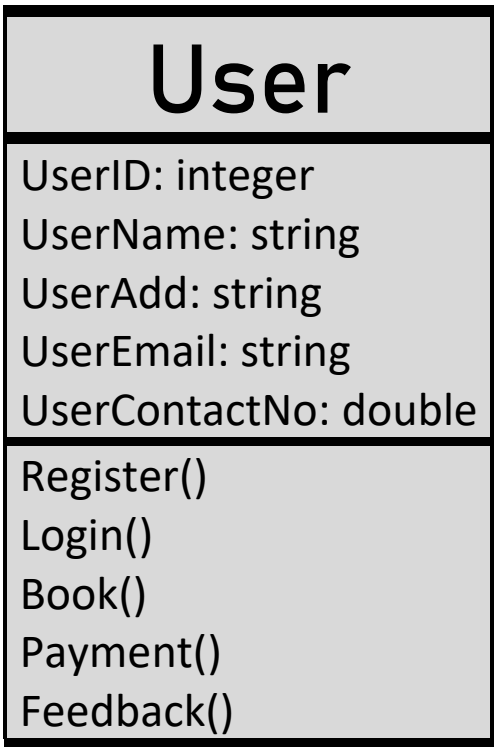
Table 2:

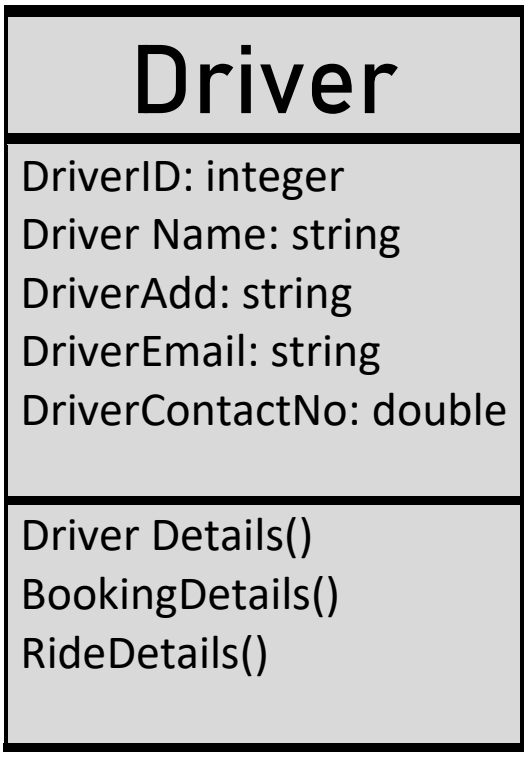
DRIVER: LOGIN	
Actors	**Driver and Database**
Description	**The user enters his email and password and then clicks Log in**
Data	**Email, password**
Stimulus	**The driver wants to benefit from the application services**
Response	**Benefit from services such as Accepting applications**

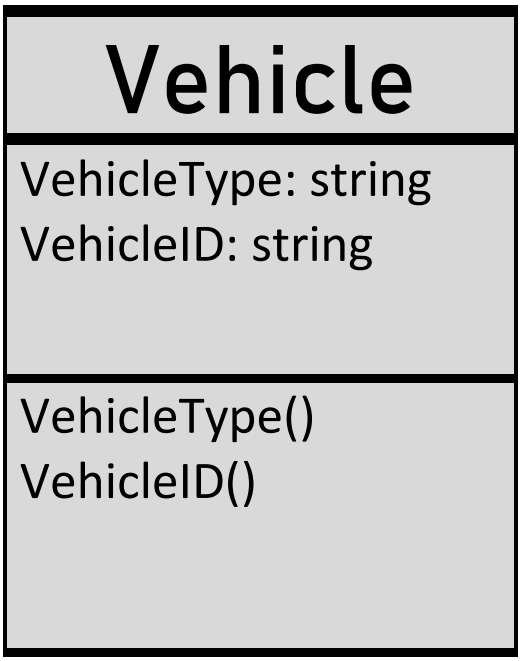
Creating Sequence Diagrams

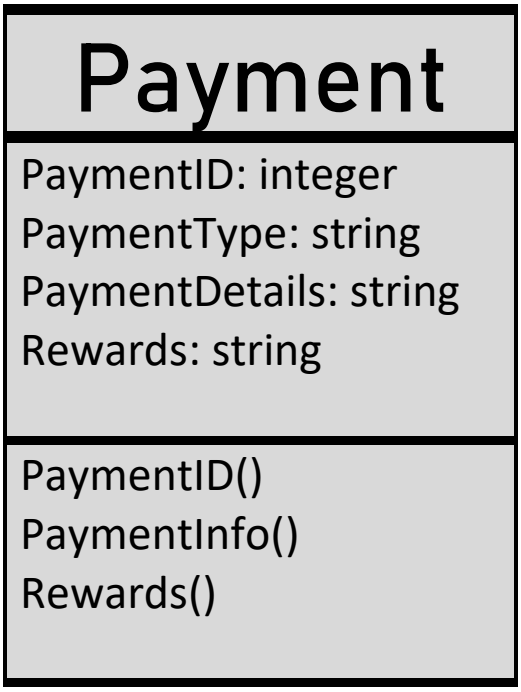


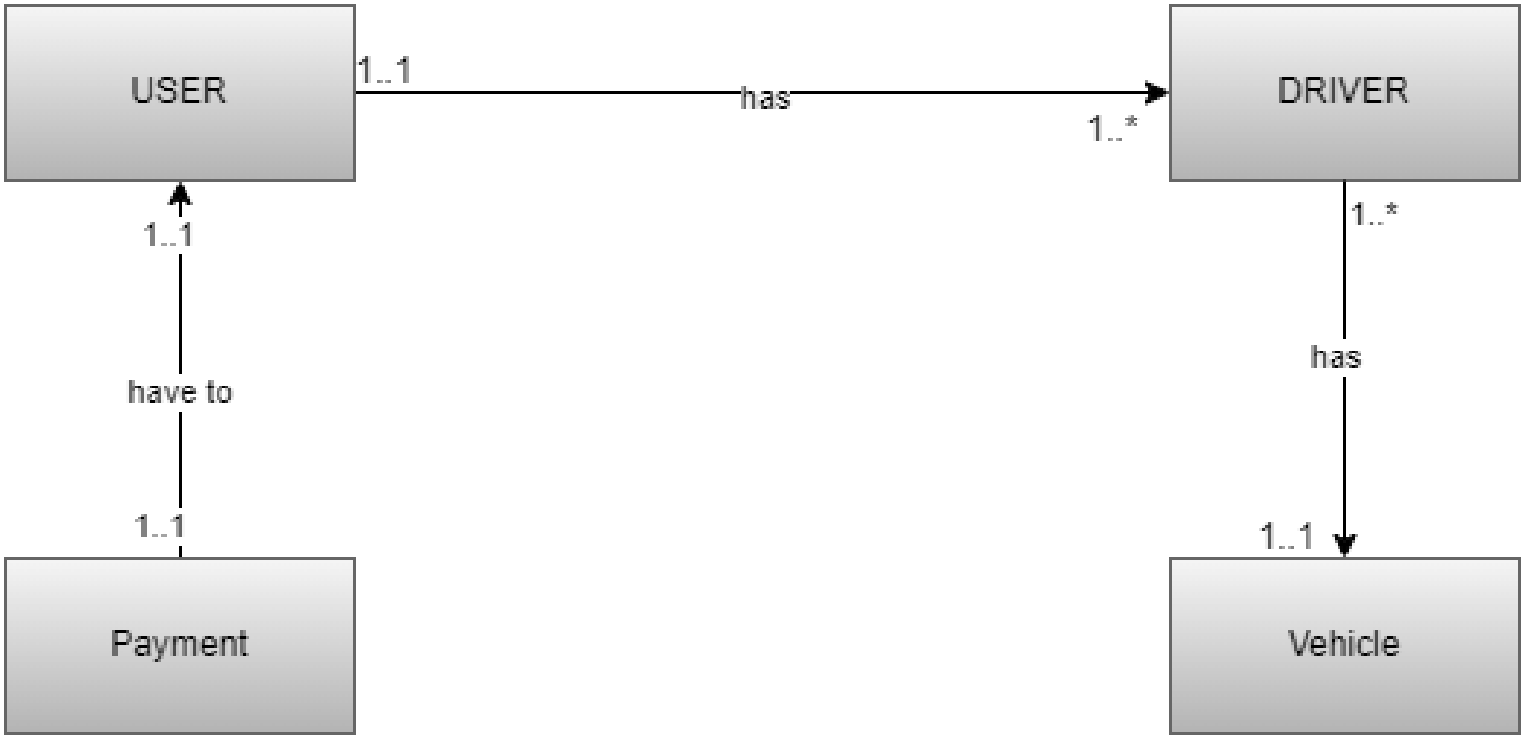
Creating a Class Diagram










USER
1..1
has
1..*
DRIVER
1..1
have to
1..1
Payment
1..*
has
1..1
Vehicle