



***Department of computer science and Engineering Report
on***

Rent Buddy

Prepared for

**Dr. -Ing Nusrat Jahan Lisa, Assistant Professor
Al Hasib Mahamud, Lecturer**

CSE3224

Information System Design and Software Engineering Lab

Prepared by

Lab Section: B2

Group No: 03

Safwan Muntasir	18.01.04.084
Mashfiq Rahman	18.01.04.087
Arifur Rahman Jawad	18.01.04.097
Abdullah Al Mohaimen	18.01.04.098

Date:03/10/2021

List of the contents:

1. summary of the project:	2
2. Project Goals and Platforms:	3
3. Requirements and Feasibility Analysis:	3
4. Data Flow Diagram:	5
5. Use Case Diagram:	7
6. Use Case Narrative:	8
7. Entity Relationship Diagram:	12
8. Sequence Diagram:	13
9. Collaboration Diagram:	15
10. Opportunities of Developments:	16
11. Benchmarking:	16

1. summary of the project:

Our project is a website on vehicle renting system which gives an online platform to rent out vehicles in tourist zone for the ease of travel.

Rent Buddy is a place where a customer can choose vehicles of their choice for renting for specific time. As a result, they will have the freedom of travelling without being bothered about transportation syndicates and as well as save money.

Currently, we are targeting our service for Cox's Bazar only as it is the most visited tourist spot of Bangladesh and has the most expensive transportation charges and syndicates. Our goal is to build up a syndicate free and cheap vehicle renting system for tourist and also give earning facilities for local people by taking their vehicles for rent services.

Rent Buddy is an website based application to run on all devices for ease of use for everyone without going to the hassle of downloading any app. Users will be able to sign up easily and use our service easily. They will go through both online and offline verification before receiving the service.

We will have vehicles of our own and also we will take local BRTA permitted vehicles from local willing people to add them to our database for renting and will cut a certain commission from their rent as our service charge. So, local people can take this opportunity as extra income or small investments.

2. Project Goals and Platforms:

Project Goals:

- Creating an online platform to rent vehicles on tourist zone.
- Reducing transportation hassle for tourist.
- Ensuring safe and secure rent service for the people.
- Cost effective fare for the vehicles for maximum reachability.
- Creating opportunities of income for local people.
- Overcoming casualties on the process for expansion of the project on other tourist zone.
- Database expansion for future use.

Platforms:

- Microsoft SQL Server Management Studio 2014
- Microsoft Visual Studio 2019

3. Requirements and Feasibility Analysis:

Technical Feasibility:

- Assessing technical feasibility includes evaluating the ability of computer hardware and software to handle workloads adequately.
- Estimating Workloads and database or storage capacity.
- Evaluating required Computer Hardware's estimating the time required for average transactions (including how long it takes to input data and how long it takes to receive output).

Economical Feasibility:

- Economic feasibility determines whether the required software is capable of generating financial gains for an organization.
- It is economically feasible as many developing companies can use this software in order to expand their business.
- Developing this website needs low cost. So, the software is worth to develop considering the economic feasibility

Operational Feasibility:**Verification:**

- There will be a mandatory verification process in which both the parties have to go through.

Efficiency:

- MySQL database and java-based software will be used throughout this application; therefore, the soft-wares will make sure the application performs efficiently.
- maximum best output is provided to both ends of this application.

Services:

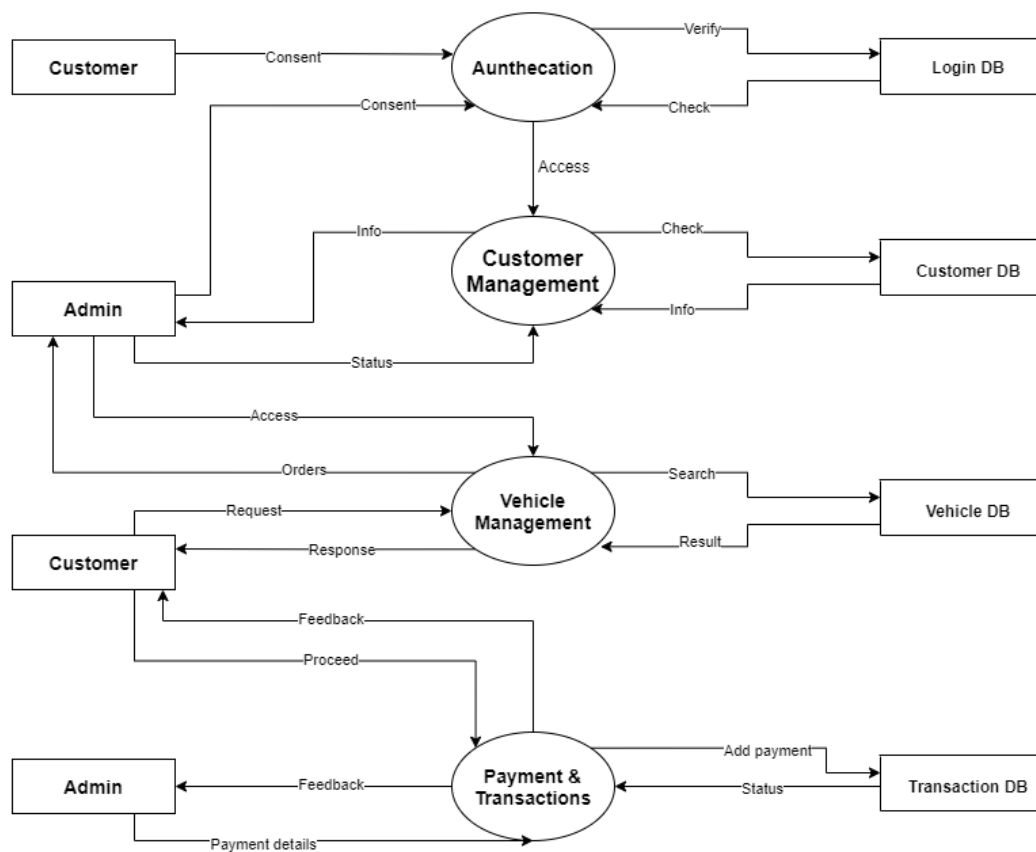
- Customers will be able to search available transportations based on their location.
- Customers and drivers both can check each others profiles for basic information.
- Customers will be able to choose their vehicle according to their need.

4. Data Flow Diagram:

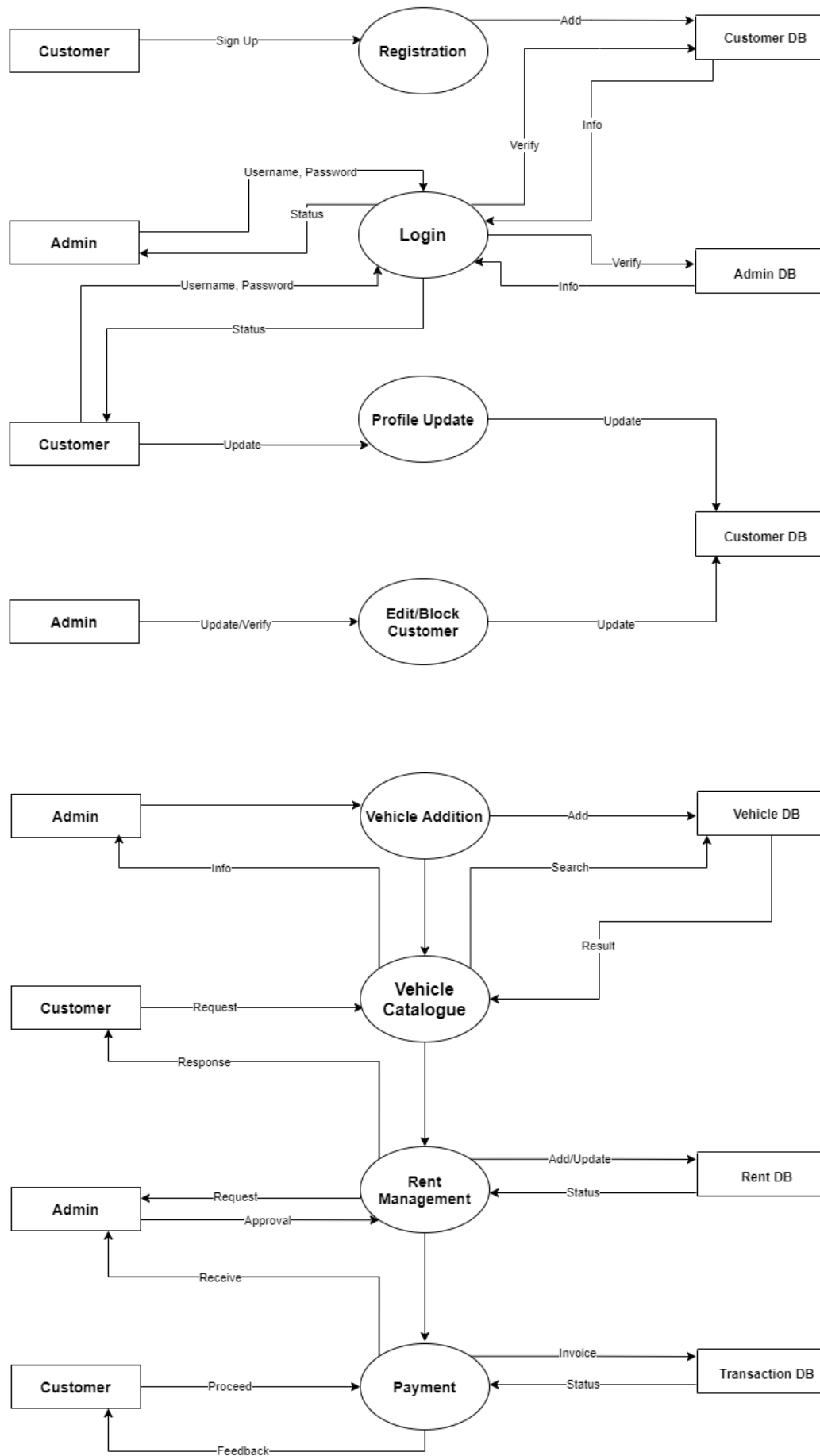
Level 0:



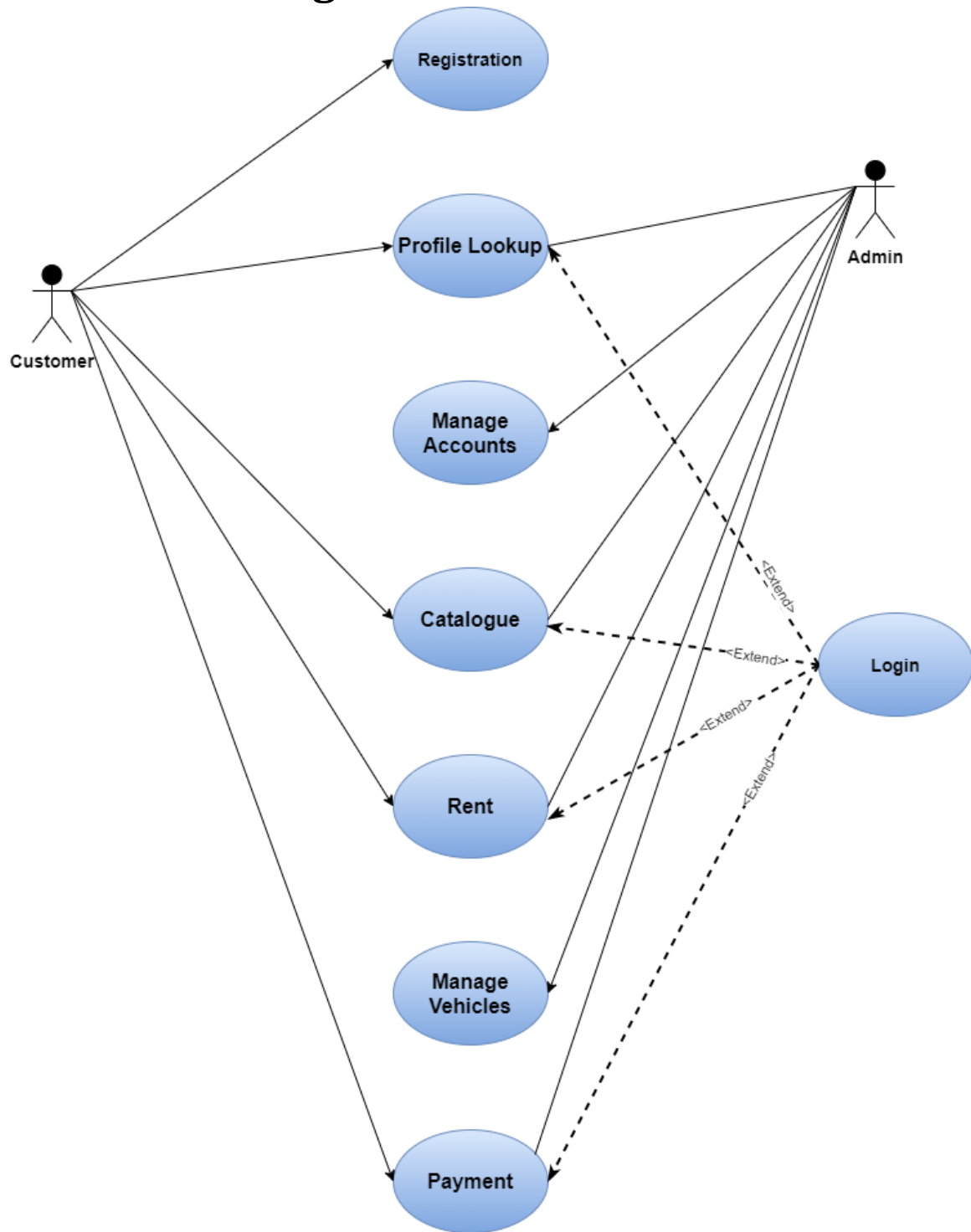
Level 1:



Level 2:



5. Use Case Diagram:



6. Use Case Narrative:

Use Case:	Registration
Primary Actor:	Customers
Scenario:	Customers go to our platform and sign up with his/her required information
Pre Condition:	None
Exception:	If the registration is not success, the system will display register page again and allow to re-enter their information.

Use Case:	Profile Lookup
Primary Actor:	Customers
Scenario:	Customers can view their profile settings and information about their activities
Pre-Condition:	Login
Exception:	If the user updating is not success, the system will display updating not successful

Use Case:	Manage Accounts
Primary Actor:	Admin
Scenario:	Admin can suspend/block a customer if he/she shows any type of rule violation
Pre-Condition:	Login
Exception:	Null

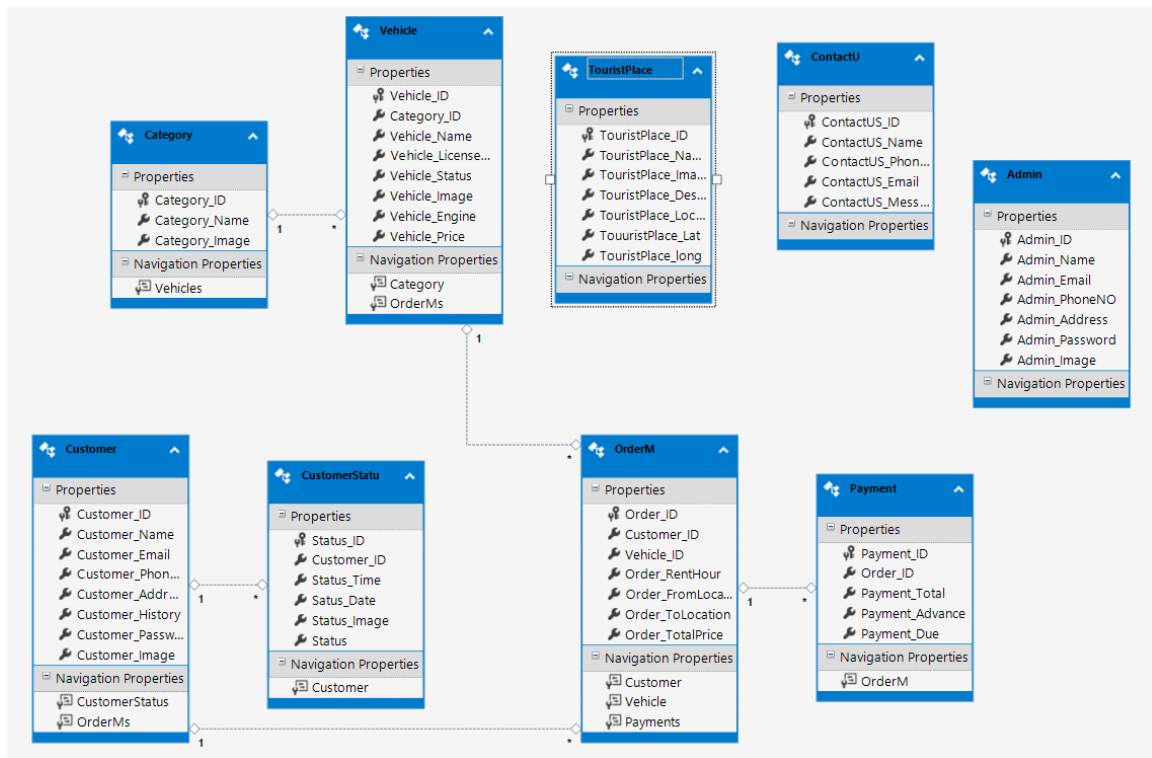
Use Case:	Catalogue
Primary Actor:	Customers
Scenario:	Customers can see available vehicles from vehicle catalogue and request any vehicle for rent
Pre-Condition:	Login
Exception:	If all the vehicles are currently in rent, the customer may not find any vehicle available at that moment.

Use Case:	Rent
Primary Actor:	Admin
Scenario:	If a customer apply for vehicle to rent, then admin will verify after customer request.
Pre-Condition:	Login
Exception:	If more that one user request for the same model at the same time, only one of them will get that model until out of stock.

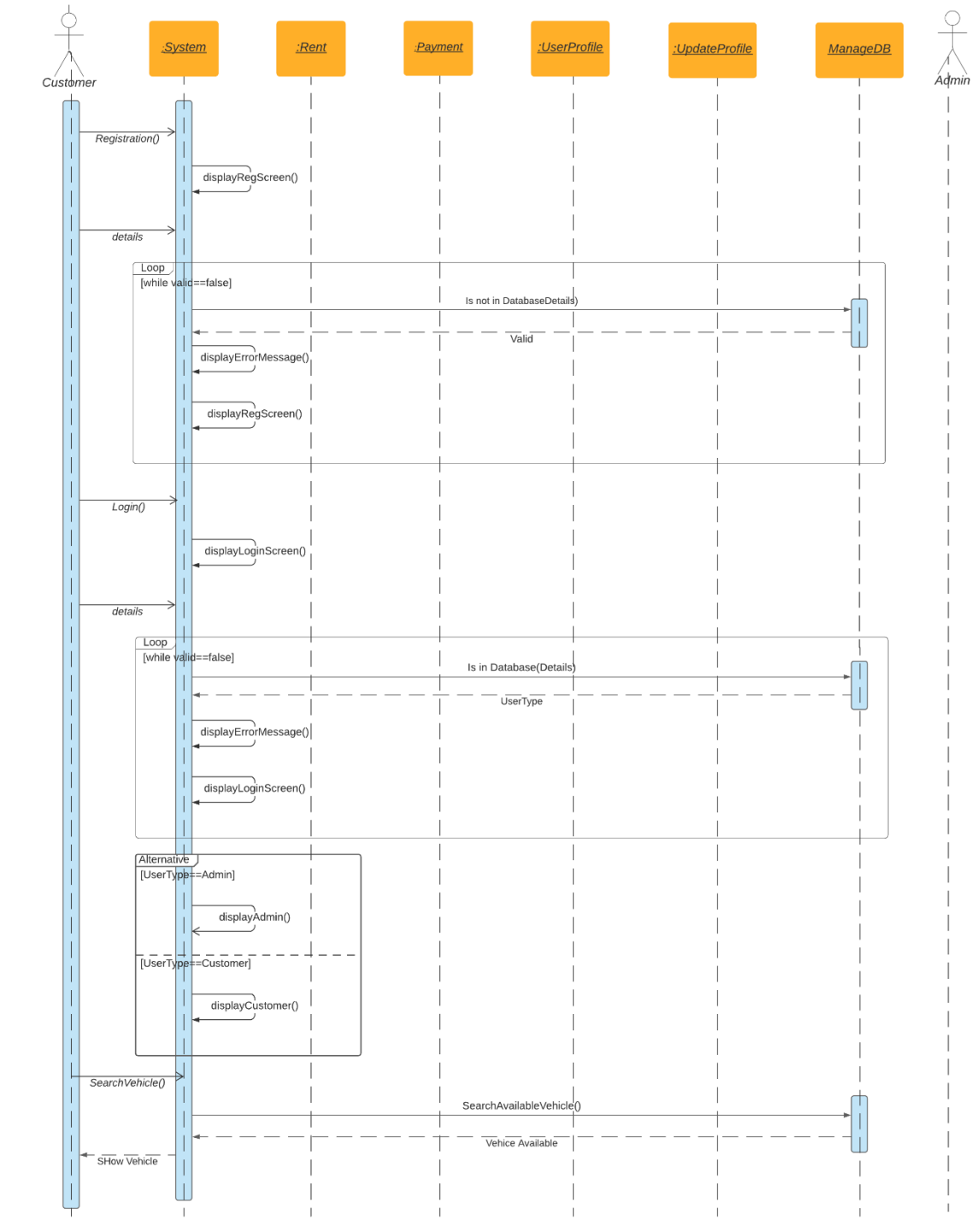
Use Case:	Manage Vehicles
Primary Actor:	Admin
Scenario:	Admin can add new vehicles or change and update current vehicles status when necessary
Pre-Condition:	Login
Exception:	Admin cannot remove a vehicle if it is currently being used by any customers.

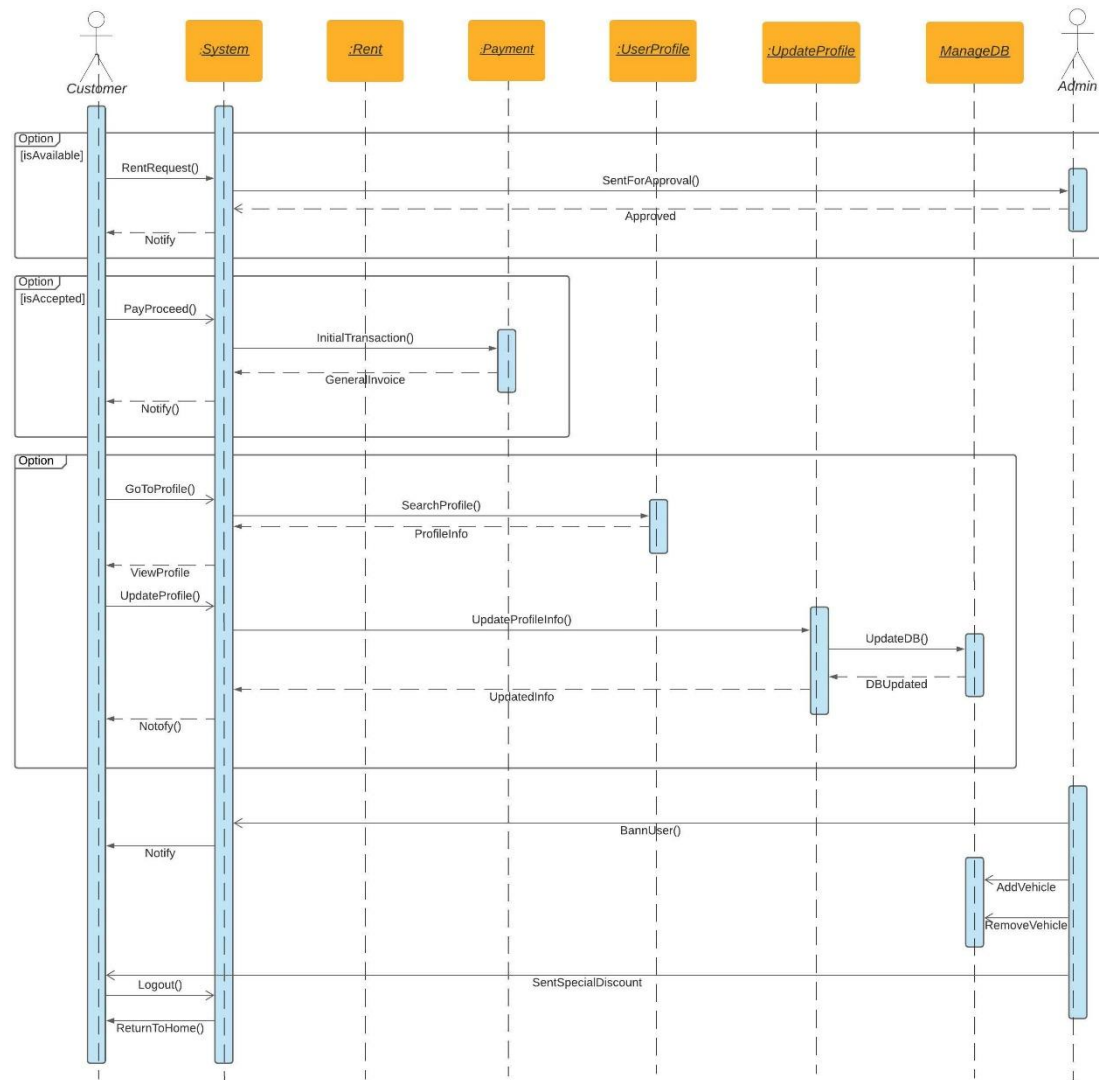
Use Case:	Payment
Primary Actor:	Customer
Scenario:	Customers will pay for the vehicle of his/her choice so that he/she will be eligible for renting
Pre Condition:	Login
Exception:	During online payment if network problem arise the system will display payment page again

7. Entity Relationship Diagram:



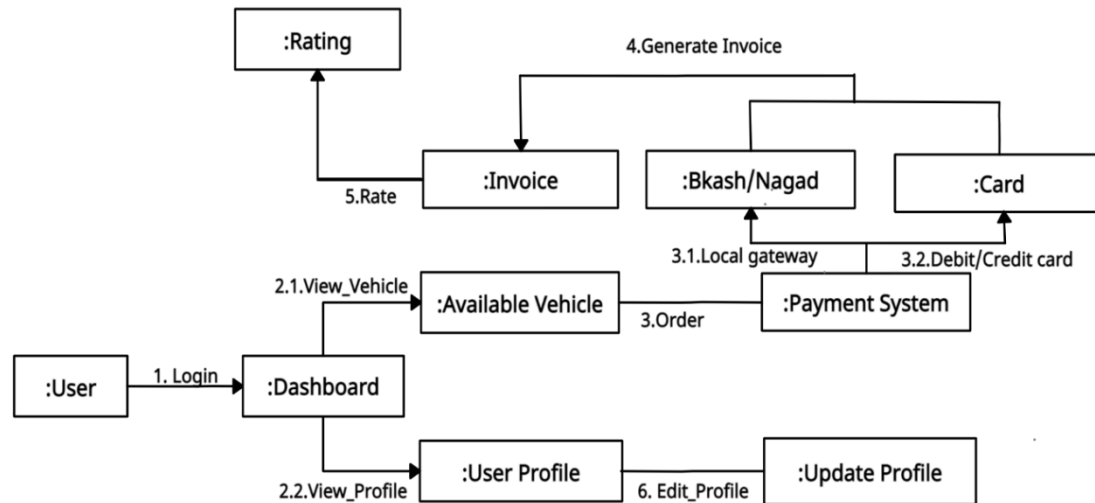
8. Sequence Diagram:



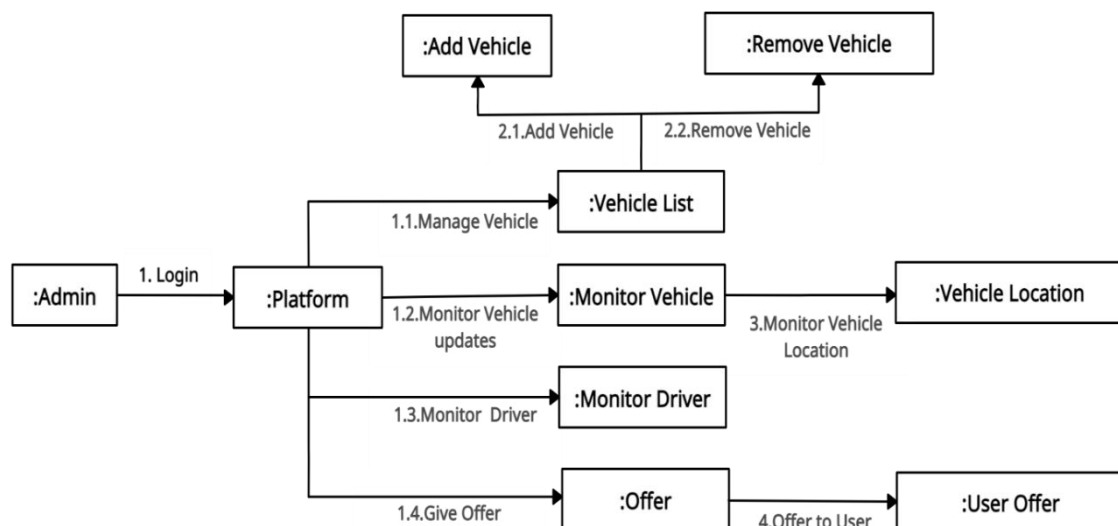


9. Collaboration Diagram:

For Customers:



For Admin:



10. Opportunities of Developments:

In future we want to expand our services to other region or tourist zone. Also, we want to add hotel booking services at the most cheapest price possible. And we will add rider option as tour guide to give best sight-seeing experience.

After that, tickets for buses, ships will be added to the service. In a word, we will add all the services required in tours and change our name to TOUR BUDDY.

11. Benchmarking:

1. Safwan Muntasir [ID: 18.01.04.084] : 25% Contribution

- Customer Login , Registration & Logout
- Admin Login, Registration & Logout
- Customer Profile and Update
- Admin Profile and Update
- Map Implementation
- Data Flow Diagram

2. Mashfiq Rahman [ID: 18.01.04.087] : 25% Contribution

- Tourist Places Management
- Order Design and Implementation
- About Us and Contact Us
- Annotation, Authentication and Authorization
- Sequence Diagram
- Use Case Narrative

3. Arifur Rahaman Jawad [ID: 18.01.04.097] : 25% Contribution

- Database Design
- Entity Relation Diagram
- Report Writing
- Home Page Design
- Navbar and footer
- Use Case Diagram

4. Abdullah Al Mohaimen [ID: 18.01.04.098] : 25% Contribution

- Admin Dashboard
- Category Design and Update
- Vehicle Design and Update
- Vehicle Management
- Database Implementation
- Collaboration Diagram