(Team ID:18) – Car Renting System

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INTRODUCTION :

A car renting system is an efficient platform that enables individuals and businesses to easily rent vehicles for a specified period. It provides a streamlined and convenient solution for customers to browse available cars, make reservations, and manage their rental bookings. The system aims to simplify the process of renting a car by offering a user-friendly interface, secure payment options. It benefits both customers, who gain quick access to a variety of vehicles, and car rental companies, who can efficiently manage their fleet and reservations.

USER REQUIREMENTS:

1-Friendly user interface

2-Easy application to use

3-Affordable price for equivalent amount of time

4-Many options of different car models

5-Safe cars to use

FUNCTIONAL REQUIREMENTS :

1-Register:

•Description: The user enters his username and password to sign up into the application

•Input: username and password

•Source: user

•Pre-condition: must have a valid e-mail and a strong password

•Post-condition: the data should be created in the database

•Output: the account should be created

2- login :

•Description : enable the users to use the system with saved information

•Input : user's data

•Source : user

•Pre-condition : user must have registered first

•Post -condition : user should be logged in

•Output : the home page

3-Search:

•Description : The user search for a car with the
•model he wants

•Input : Car's model

•Source : User

•Pre-condition : The user entered an existing model

•Post-condition : The search result should be filtered with the car model

•Output : The car model

4- Select car:

•Description: the user selects the car that he chose

•Input: the car which is selected

•Source: user

•Pre-condition: the user should select an available car first

•Post-condition: the car should be rented and not available to the other users

•Output: moved to the payment page

5- Payment :

•Description : user should pay the renter to rent a car

•Input : money from user's bank account

•Source : user

•Pre-condition : the user's bank account balance should be greater than the price of renting the car

•Post-condition : the money transfered to renter's bank account

•Output : Car is rented

NON-FUNCTIONAL REQUIREMENTS:

1-Response time: the system response time for every instruction should not exceed 8 seconds

2-Usability: the system is easy to use and the system offers help and support for the users

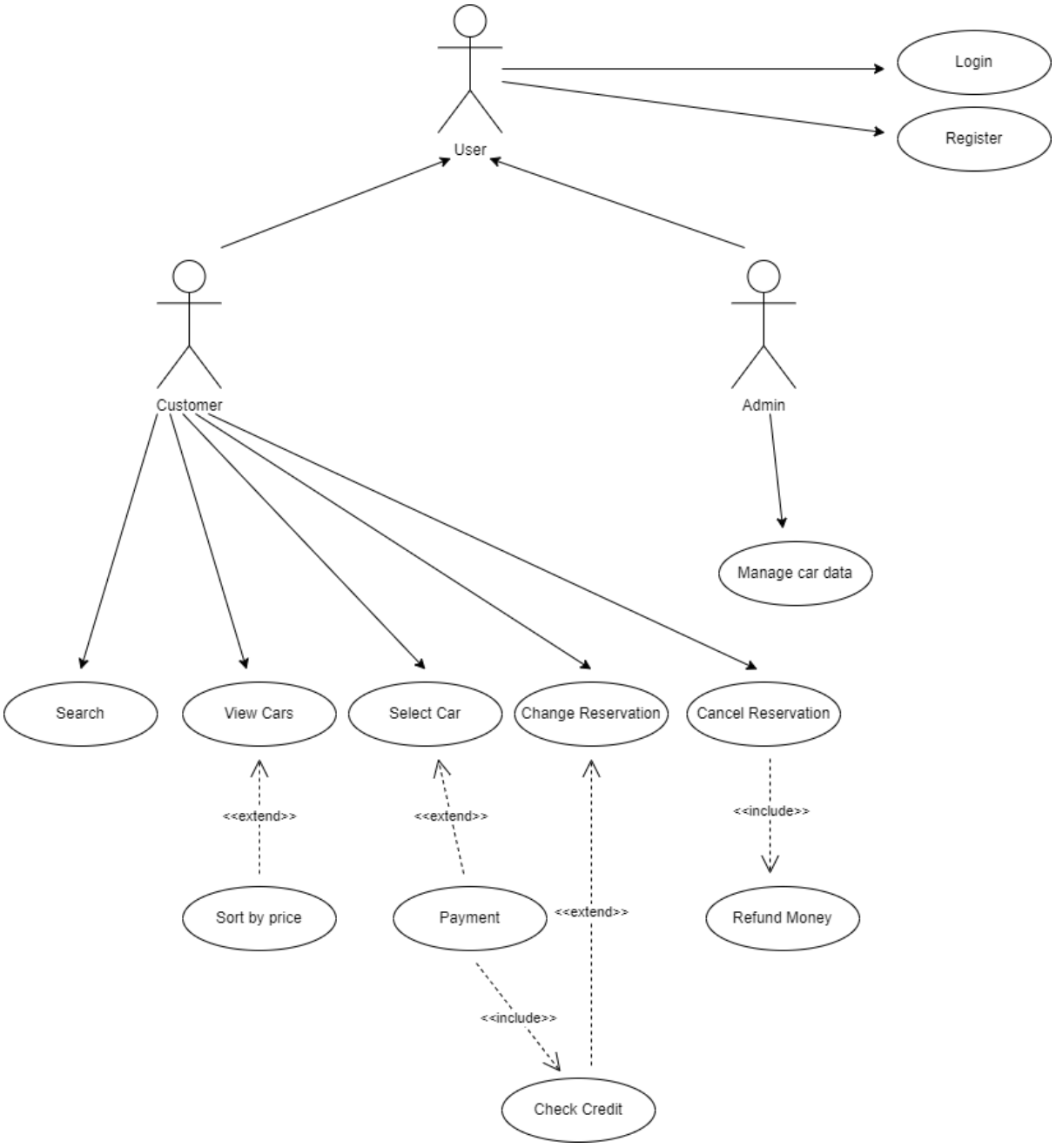
3-programming language: the application is written in C# language

4-IDE : the developers use Visual Studio Code

5-constraint: the balance of the user should be greater than or equal the car price

6-Relaibility: the system should not crash at any circumstances

USE CASE DIAGRAM :



SEQUENCE DIAGRAM :