



CENG 241

OBJECT ORIENTED PROGRAMMING

Car Rental System

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1. INTRODUCTION

The car rental system is a system designed for the use of car rental companies and their customers to facilitate their requests.

1.1 Purpose

The problem we are working on is product complexity in car rental companies is difficult for users to reach their wishes.

Ordinary car rental programs divide rental cars into too many categories. We basically separated 3 different features and put the common features in this content. In this way, someone who rents a car can find and buy a suitable vehicle much more easily.

We designed a program where each user can log in to their own account and rent any type of vehicle they want. Users can rent vehicles suitable for them and return them at the end of their usage period. At the end of these, they pay from their wallets according to the type of vehicle and the rental period.

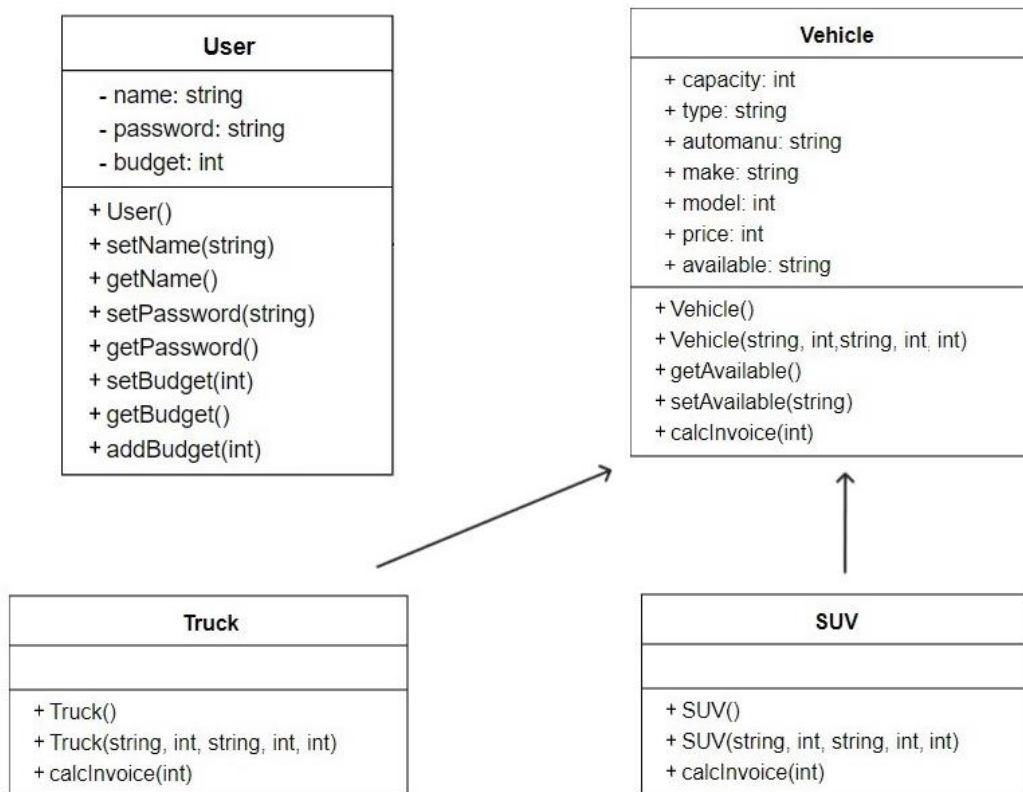
2. DESIGN OF PROGRAM

2.1 Solution Design

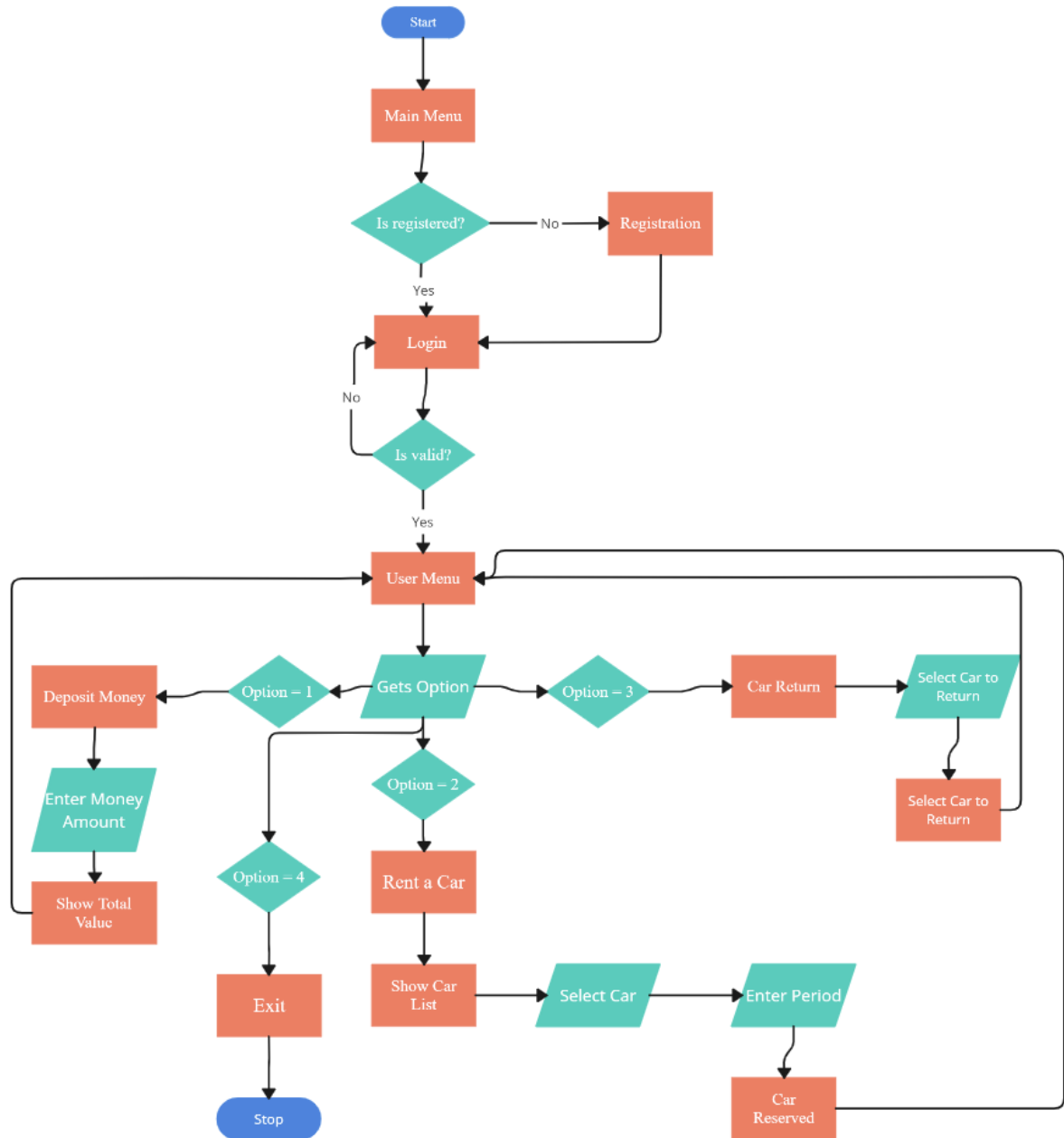
- 1-** We created a simple login screen in our program. On this screen, there is a registered user login and an option to register if the user is not registered.
- 2-** The user can add funds to her/his wallet after logging in. Car rental fees will be paid with this wallet
- 3-** When the user enters the rent a car option, he or she will see a list of available vehicles and their features.
- 4-** After the user decides on the car, he/she wants and enters the rental period, if his/her budget covers the cost of the car he/she chooses, He/she will be able to rent the car.
- 5-** Another control mechanism in the program is the time specified for the rent. During the rental period of the vehicle, the vehicle is not included in the eligible vehicle list and other users cannot rent this vehicle.
- 6-** The user must return the vehicle by logging into the system after the usage period is over. The user selects the vehicle from the “Return the Car” menu and the vehicle is returned. The returned vehicle is available in the list again.

****** In this program, 2 data text files are used to keep and change user and vehicle information.

2.2 Class Diagram



2.3 Flowchart



3. TESTING RESULTS

```
                Welcome
*****
                1-Login
                2-Register
                3-Exit

lutfen secim yapiniz:2
```

```
Create a username (Do not use spaces): Mehmet
create password: 5836
Do you want to deposit money into your account? (1-Yes, 2-No): 1
Enter your budget: 650
```

```
Please enter your username: Mehmet
Enter your password: 5836
```

```
Mehmet                Your budget: 650
*****
                1-Deposit Money
                2-Rent a Car
                3-Return the Car
                4-Exit

lutfen secim yapiniz:2
```

```
Mehmet                                Your budget: 650
*****
S.nu   Tipi   Marka   Model  Fiyat
-----
1      Truck  Ford    2020   15
2      SUV    Dodge   2019   15
3      Truck  Seat    2020   15
4      SUV    VW      2020   15
5      Truck  BMW     2020   15

Bir ust Menu icin '0' tuslayiniz!
What number vehicle do you want? 3
How many days do you want to rent? 15
```

```
Mehmet                                Your budget: 425
*****
1-Deposit Money
2-Rent a Car
3-Return the Car
4-Exit

lutfen secim yapiniz:3

Vehicles you have rented:
0- Exit
1- Truck Seat 2020 manual 3000 15
The number of the vehicle you want to return: 1
```


4. CONCLUSION

While doing this project, we had the opportunity to apply the subjects we learned in the lesson on our project. At the same time, we learned and experienced what it is like to work as a group, and the importance of using time efficiently (especially what we want to do first to put into a diagram and then to put into code) and organizing it while doing a job.

In fact, we learned by making mistakes, we made mistakes and researched in many places, and everyone supported each other by trying to solve each other's mistakes.