

Car Rental System



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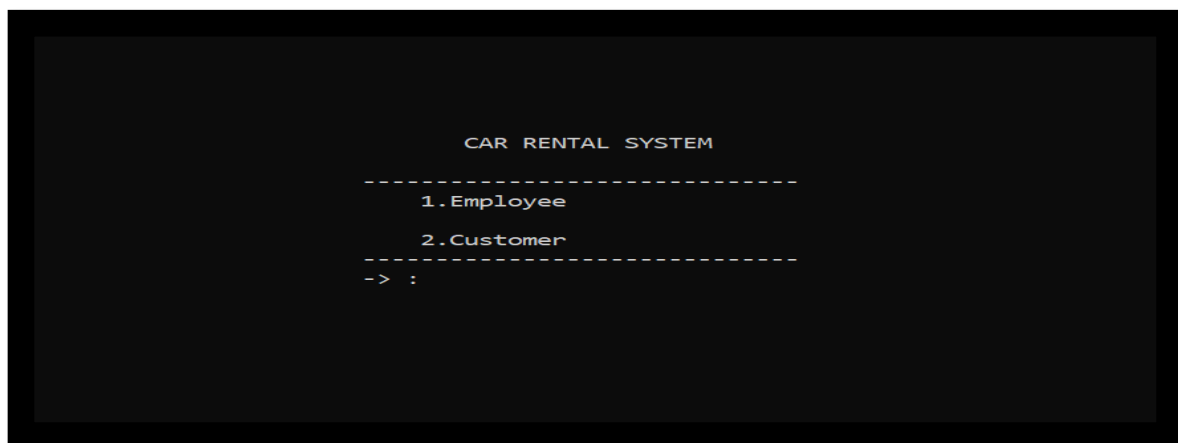
Car Rental System

Introduction

The car rental system is a prototype of creating a fundamental car rental program based on the concepts of Object Oriented Programming and common rentals system in general idea. The Rental System contains a login system for the user to access the main program, the menu showcases different car models as the choices available for the user to select and proceed and rental order is processed accordingly.

The Project focuses on the implementation of basic level car rental system to keep the processes smooth and easy for the end-user and the administration too. The car rental system provides the basic functions for a management system to carry-out the rentals easily.

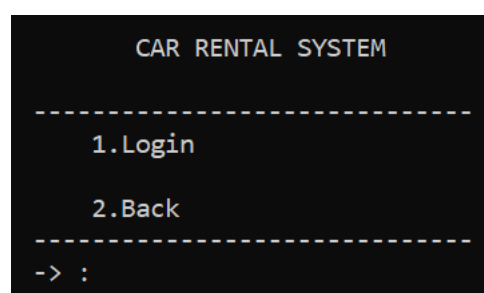
Detailed Work Flow



Screen#1

The screen-1 illustrates the initial view of the program; it asks the user to select the program-drive as if the employee is operating or the customer.

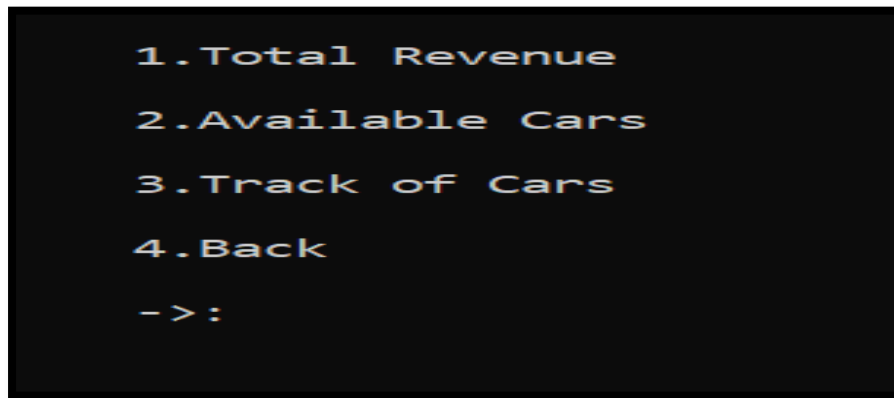
- Employee



Screen#2

After Selecting Employee option, Screen-2 will appear.

The employee will have to log in to access employee features.

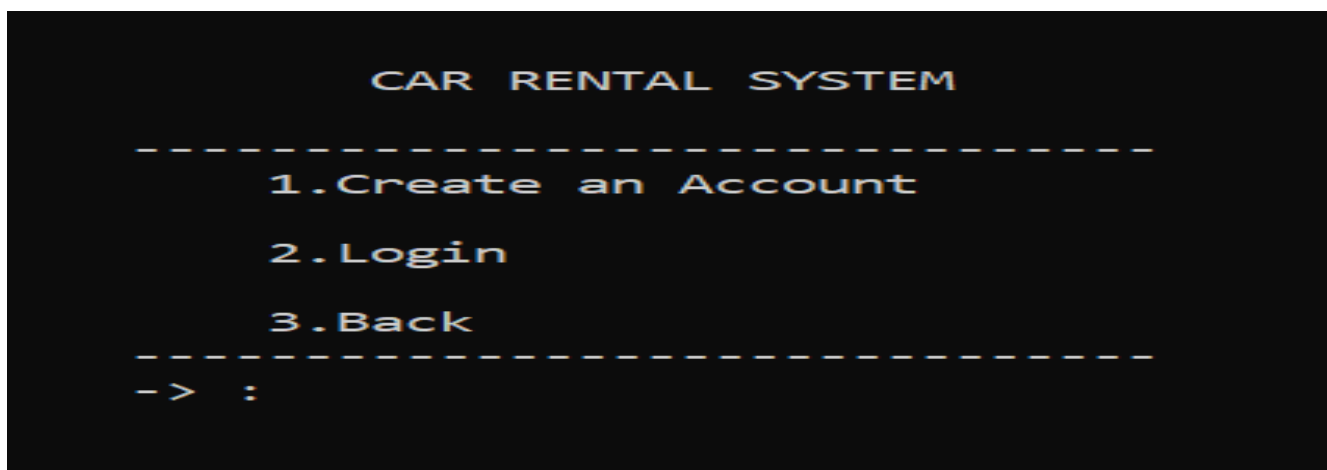


Screen#3

After logging in as an employee, Screen-3 will appear, it lists all the available functions for an employee to manage and get report of the information regarding business.

No#	Option	Function
1	Total Revenue	This shows the total revenue generated from the rentals.
2	Available Car	This lists the vacant cars for the rental services.
3	Track of Cars	This lists the cars that are on rent currently.

- Customer



Screen#4

After selecting the customer-drive, screen-4 will be displayed and it consists of two functions; first to create a user account and second to login using the credentials of an existing account.

```

                                CAR RENTAL SYSTEM
                                -----
                                1.Create an Account
                                2.Login
                                3.Back
                                -----
                                -> : 1

Enter your Name: qasim

Enter your password: ***
Enter the Contact Number: 123

```

Screen#5

Screen-5 illustrates the account creation process for the customer.

```

Enter the username: haseeb
Enter the password: ***

Login Successful
Press any key to move forward!
    1.Rent

    2.Register Car

    3.Back

    ->:

```

Screen#5

After logging in, Rent and Register car option will be shown (as illustrated in screen-5)

No#	Option	Function
1	Rent	It allows the user to rent a car according to his/her conditions.
2	Register Car	It registers a car for the rent after user completes important credentials and details.

Concepts of Object Oriented Programming used

1. Encapsulation
2. Inheritance
3. Abstractions
4. File Handling
5. Polymorphism
 - a) Function overloading
 - b) Function overriding

Challenges and Discussions

The project illustrates the simple car rental system for both the user-end and the client side; it consists of both functions of user and client. The data is backed up in files and maintained through different functions.

As a prototype the program exhibits well up to its demands, however complete exception handling is still a challenge to be implemented at every data entry or retrieval of the program.

Eventually, it successfully prototypes the basic management system with backed up data and efficient coding structure.