



# American International University- Bangladesh

## CSC 2209: Object Oriented Programming 1 (JAVA)

### CO1 Evaluation Project Summary Report Summer 18-19

**Group No: B06**  
**Project Title: CAR RENTAL SYSTEM**

Student Name	Student Id
KADER KHAN	17-35035-2
SATTER TAMIM RIMON	17-35073-2
ISLAM,SAIFUL	17-34994-2

# Write Your Project Title Here

## Introduction:

*Write the answer of why you are doing this project? (No more than 60 words)*

## User Category:

There are two types of Users here. They are:

- Type 1
- Type 2

## Feature List:

In this project the “User Type 1” has the following features:

- Feature 1
- Feature 2
- .
- .
- .
- Feature N.

In this project the “User Type 2” has the following features:

- Feature 1
- Feature 2
- .
- .
- .
- Feature N.

## GUI Description:

Give a screen shot of some GUIs and write a very small description (Maximum 40 words) for each of the GUIs.

## Database Table Description:

Give a screen shot of the database table structures.

## Class Diagram:

Draw a class diagram of your project here. You can draw then in a paper and add the image of the paper.

## Tools Used:



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To develop this project we have used the following:

- Tool1
- Tool2
- .
- .
- .
- Tool N

## OOP and Java Concepts Used:

- Concept 1: Explain in no more than two sentences.
- Concept 2: Explain in no more than two sentences.
- .
- .
- .
- Concept N: Explain in no more than two sentences.

## Impact of this Project:

What impact this project will have on the society and economy?  
How will people be benefitted from your project?

(Maximum 80 words)

## Limitations and Possible Future Improvements:

(Maximum 80 words)

*[Note: Make sure that your report is maximum 6 pages (including coverpage). Print the report and do NOT even think of Spiral binding.]*



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## Car Rental System

### \*INTRODUCTION :

Now a days ,Car Rental System is getting more and more popular through out the World . Among all of the Development Countries , Car Rental System plays a significant role . As Bangladesh is one of the Developing countries, it is our motto to introduce our people to these new systems which are blessing for our country and make our everyday life more comfortable . And this system make renting car more simple and easier.

### \*USER CATEGORY :

There are three types of Users here.They are :

1. MANAGER
2. RECEPTIONIST
3. CLARK

### \*FEATURE – LIST :

In this project the “MANAGER” has following features :

- 1.Manages all Employee ,Worker,Mechanic,Clark,Receptionist,Car,Driver.
2. Can Get all employeeid,name,salary,job type,join date and information from database.
3. Can Search,Load,Insert,Update,Delete any Employee and Information.
- 4.Can Change Password.

In this project the “RECEPTIONIST” has following features :

1. Booking and Checking Car-Status .
2. Can Get all Car info,id,brand,reservation Date and number of seat.
3. Can Change Password.

In this project the “CLARK” has following features :

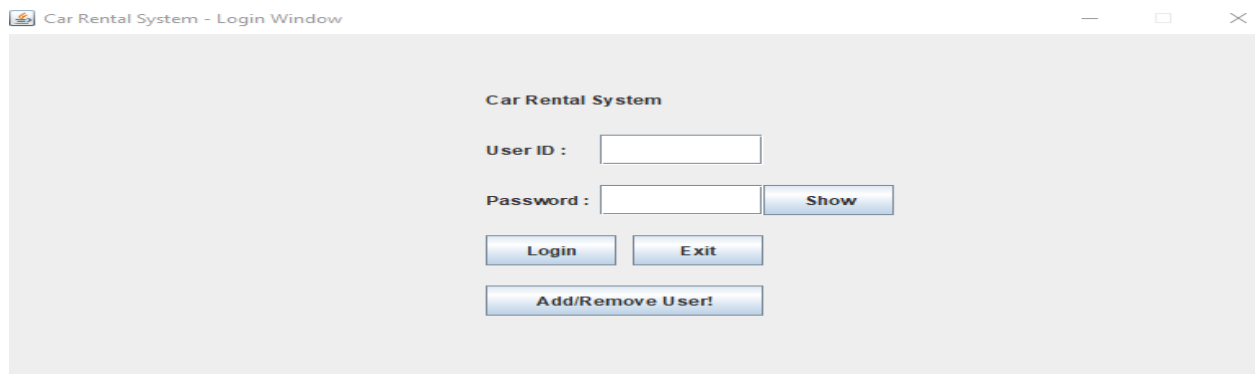
1. Manages Worker,Mechanic,Driver,clark,employee.
2. Can Get all Employee id,name,salary,job type,join date and information .
3. Can Search,Load,Insert,Update,Delete any Mechanic and Information.
4. Can Change Password.



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## GUI – DESCRIPTION :

### 1.Login Window



Car Rental System

User ID :

Password :

portal.As they are the user here,they can do their acts according to their accessibility.

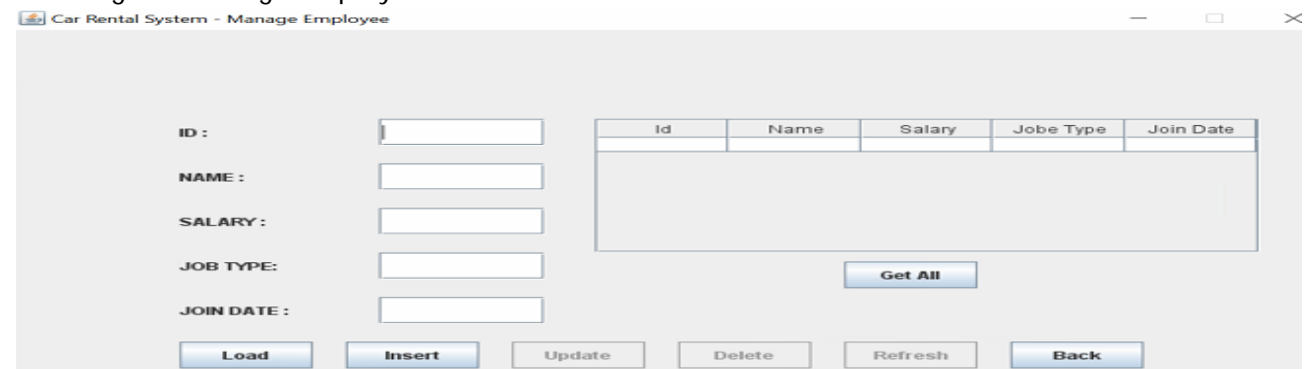
### 2.Manager –Homepage



Car Rental System - Welcome Manager

homepage.manager will do acts according to his accessibility.here manager manages everything .For example –Manager manage employee,manage car ,manage driver and change password.

### 3.Manager – Manage Employee



Car Rental System - Manage Employee

ID :

NAME :

SALARY :

JOB TYPE:

JOIN DATE :

Id	Name	Salary	Jobe Type	Join Date

Here from Manage employee,manager can get all employeeid,name,salary,job type,join date from database.Manager can search,load,insert,update,delete any employee and



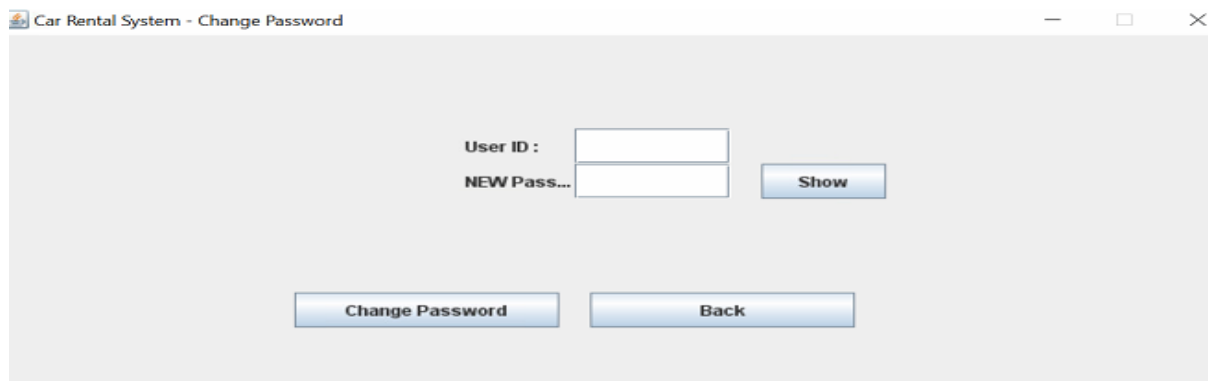
# Write Your Project Title Here

information.



# Write Your Project Title Here

## 4.Change Password



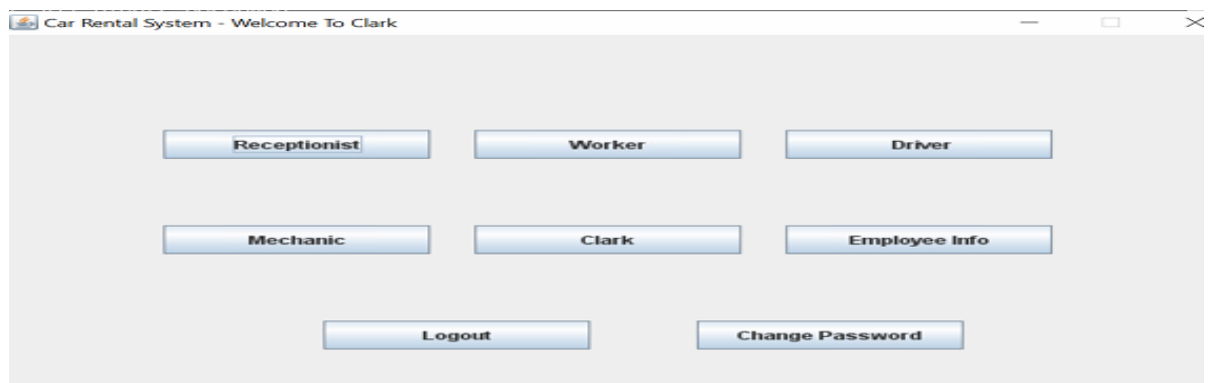
Car Rental System - Change Password

User ID :

NEW Pass...

From Change Password window from manager homepage ,Manager can change his password by replacing new password.Besides From Clark and Receptionist can also change their password from their specified window.

## 5. Clark - Homepage



Car Rental System - Welcome To Clark

accessibility.

## 6.Manage Employee



Car Rental System - Manage Employee

Id	Name	Salary	Job Type	Join Date



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## 7. Manage Mechanic

Car Rental System - Manage Mechanic

ID :

NAME :

SALARY :

JOIN DATE :

Id	Name	Salary	Join Date
mc10000	Aron	25000.0	4 May 2004

From Clark-window, Clark also can manage mechanic, get info, load, insert, update, delete as like manager.

## 8. Receptionist – Homepage

Car Rental System - Welcome To Receptionist

accessibility.

## 9. Receptionist – Booking Car

Car Rental System - Booking Car

ID :

RESERVATION ...

Id	Brand	Reservation Sta...	Seat
c10000	Datsun	book	8
c10001	Corolla	not book	4
c10002	Ford	not book	14
c10003	Maruti	not book	6
c10004	Hyundai	not book	16
c10005	Alion	not book	4





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## 10.Add User Window



From Login-window by pressing Add/remove user,Add user window is opened.A user can add or remove new id and job type.

## DATABASE-TABLE-DESCRIPTION :

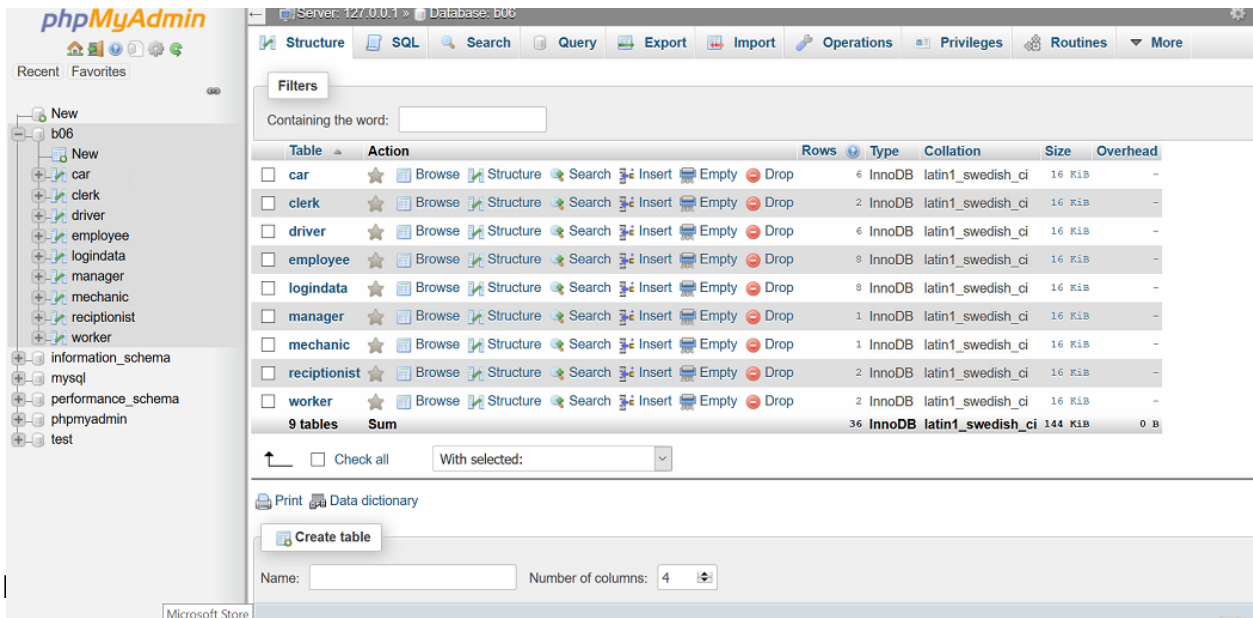


Table	Action	Rows	Type	Collation	Size	Overhead
car	Browse Structure Search Insert Empty Drop	6	InnoDB	latin1_swedish_ci	16 K B	-
clerk	Browse Structure Search Insert Empty Drop	2	InnoDB	latin1_swedish_ci	16 K B	-
driver	Browse Structure Search Insert Empty Drop	6	InnoDB	latin1_swedish_ci	16 K B	-
employee	Browse Structure Search Insert Empty Drop	8	InnoDB	latin1_swedish_ci	16 K B	-
logindata	Browse Structure Search Insert Empty Drop	8	InnoDB	latin1_swedish_ci	16 K B	-
manager	Browse Structure Search Insert Empty Drop	1	InnoDB	latin1_swedish_ci	16 K B	-
mechanic	Browse Structure Search Insert Empty Drop	1	InnoDB	latin1_swedish_ci	16 K B	-
receptionist	Browse Structure Search Insert Empty Drop	2	InnoDB	latin1_swedish_ci	16 K B	-
worker	Browse Structure Search Insert Empty Drop	2	InnoDB	latin1_swedish_ci	16 K B	-
9 tables	Sum	36	InnoDB	latin1_swedish_ci	144 K B	0 B

car,clerk,driver,employee,login data,manager,mechanic,receptionist and worker.Each table is contained with different types of data and information.



```
graph TD
    MECHANIC[MECHANIC] -- "1..* manage" --> MANAGER[MANAGER]
    DRIVER[DRIVER] -- "1..* manage" --> MANAGER
    WORKER[WORKER] -- "1..* manage" --> MANAGER
    CLERK[CLERK] -- "1..* manage" --> MANAGER
    RECEPTIONIST[RECEPTIONIST] -- "1..* manage" --> MANAGER
    CAR[CAR] -- "0..* check booking" --> RECEPTIONIST
    LOG_IN[LOG-IN]
    MECHANIC -- "1..*" --> LOG_IN
    DRIVER -- "1..*" --> LOG_IN
    WORKER -- "1..*" --> LOG_IN
    CLERK -- "1..*" --> LOG_IN
    RECEPTIONIST -- "1..*" --> LOG_IN
    MANAGER -- "1 login" --> LOG_IN
    LOG_IN -- "1..*" --> ADD[ADD]
    LOG_IN -- "1..*" --> DELETE[DELETE]
    LOG_IN -- "1..*" --> UPDATE[UPDATE]
    LOG_IN -- "1..*" --> SEARCH[SEARCH]
```



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## \*TOOLS :

1. Notepad ++
2. Xamp
3. JDK
4. JRE
5. SQL

## \*OOP and JAVA CONCEPTS USED :

1. Concept 1 : Encapsulation .Encapsulation is occurred here by using the access modifiers(public,private,package,protected)
2. Concept 2 : Inheritance . Inheritance is occurred here by extends classes from same and different packages.
3. Concept 3 : ArrayList concept is used here.
4. Concept 4 : Abstract concept is used here by hiding class method.
5. Concept 5 : Interface . Interface concept is used by in herited by another interface.
6. Concept 6 : G U I ( Graphics User Interface) concept is used here For designing and creating GUI.
7. Concept 7 : DatabaseConnection and sql is used here for connecting with database for tables data.

## \*IMPACT OF "CAR –RENTAL-SYSTEM" :

As Bangladesh is a developing country , it will be beneficial to use Car Rental System.This will create a big employment sector in our country . It will Impact good to our country economy. As here is big scope for jobs ,here have some positions like clerk , mechanics , workers , receptionist .Renting cars as drivers is helping to earn money for living . Besides car rental system is very simple and user friendly to use for any car rental company.Data and information is very easy to get . Adding , inserting ,updating and collecting any data and information is very simple in this system .



## **Write Your Project Title Here**

### **LIMITATIONS & POSSIBLE FUTURE IMPROVEMENTS :**

Car Rental System is beneficial for any Development and developing country . We have to introduce this system to people and tell them about this system's Benefits. Time and money is the biggest limitation for the improvement. As it is new , Many car rental company would not agree to purchase and use this system . With the pace of time ,we need to do more improvement for this system and adding more facilities which are making the system more useable and In future it will come with more important features.

