American International University- Bangladesh

CSC 2209: Object Oriented Programming 1 (JAVA)

CO1 Evaluation
Project Summary Report
Summer 18-19

Group No: K06
Project Title: Car Showroom Management System

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Car Showroom Management System

Introduction:

This project mainly focuses on a system which stores information about cars and purchases of a Car Showroom. When Customer wants to buy a Car then a salesman or employee can go through this management system. It shows the Car price, Car id, Car Cc, Car color, manufacturer, manufacturing year etc. And when a customer buys a car the purchase is stored through the system which contains the details of the customer like customer name, customer contact, due date, Car id and an unique bill no to keep track of the purchase.

User Category:

There are two types of Users here. They are:

- Employee Type 0
- Employee Type 1

Feature List:

In this project the Employee Type 0 (Management) has the following features:

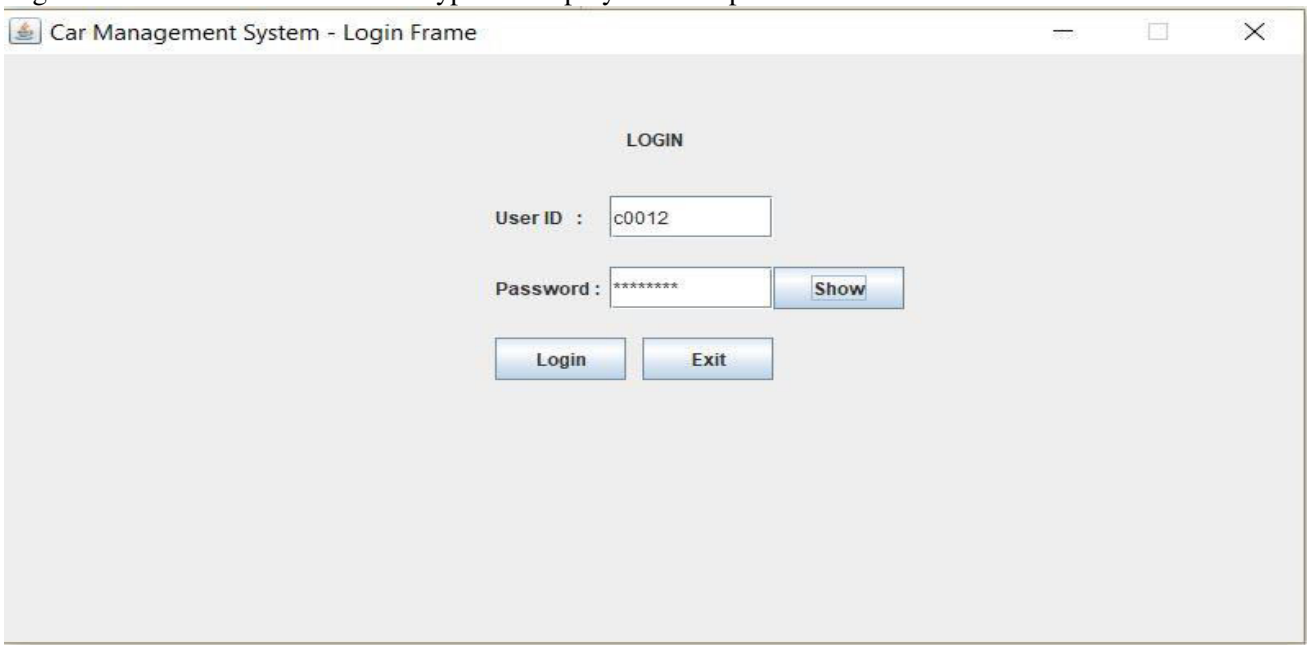
- Login
- Manage Employee
- Manage Cars
- Manage Purchase

In this project the Employee Type 1(Normal) has the following features:

- Login
- Manage Cars
- Manage Purchase

GUI Description:

Login Frame: This is where the two types of employees are separated. User ID and Password is authenticated here.



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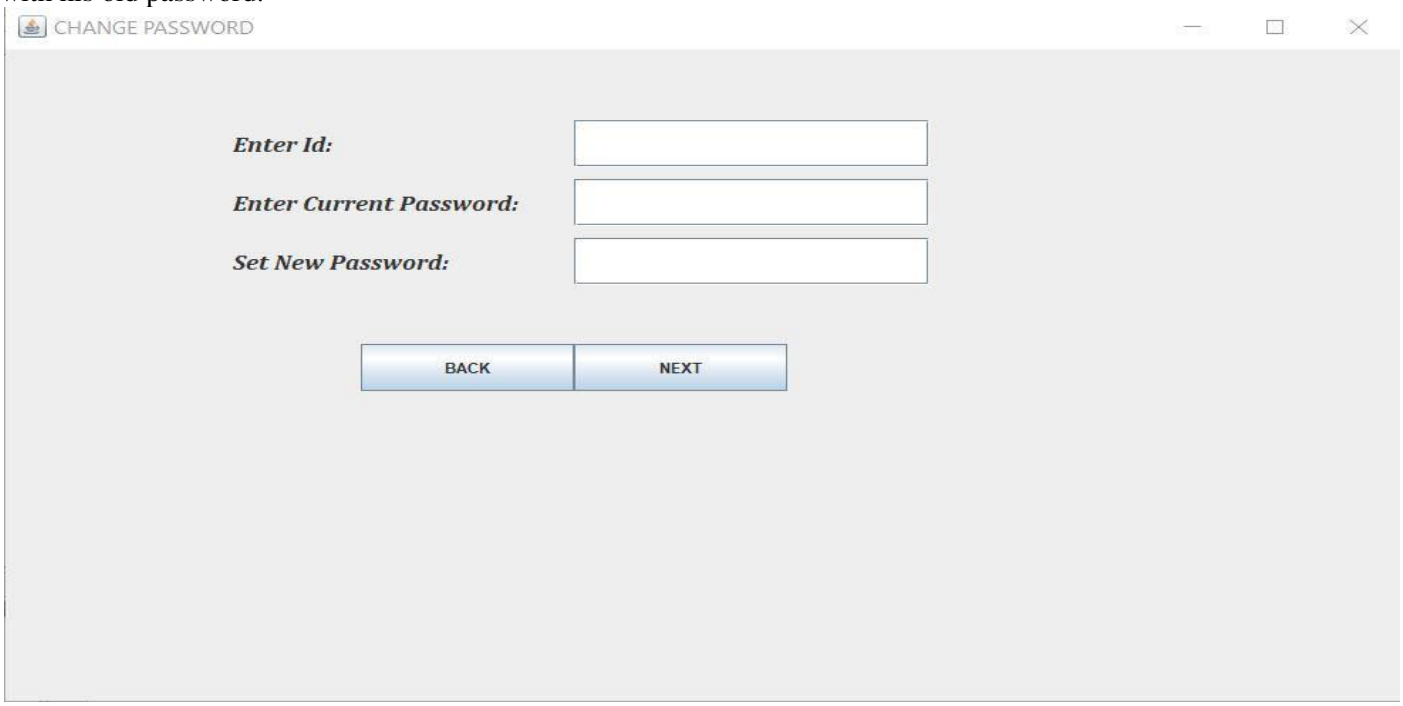
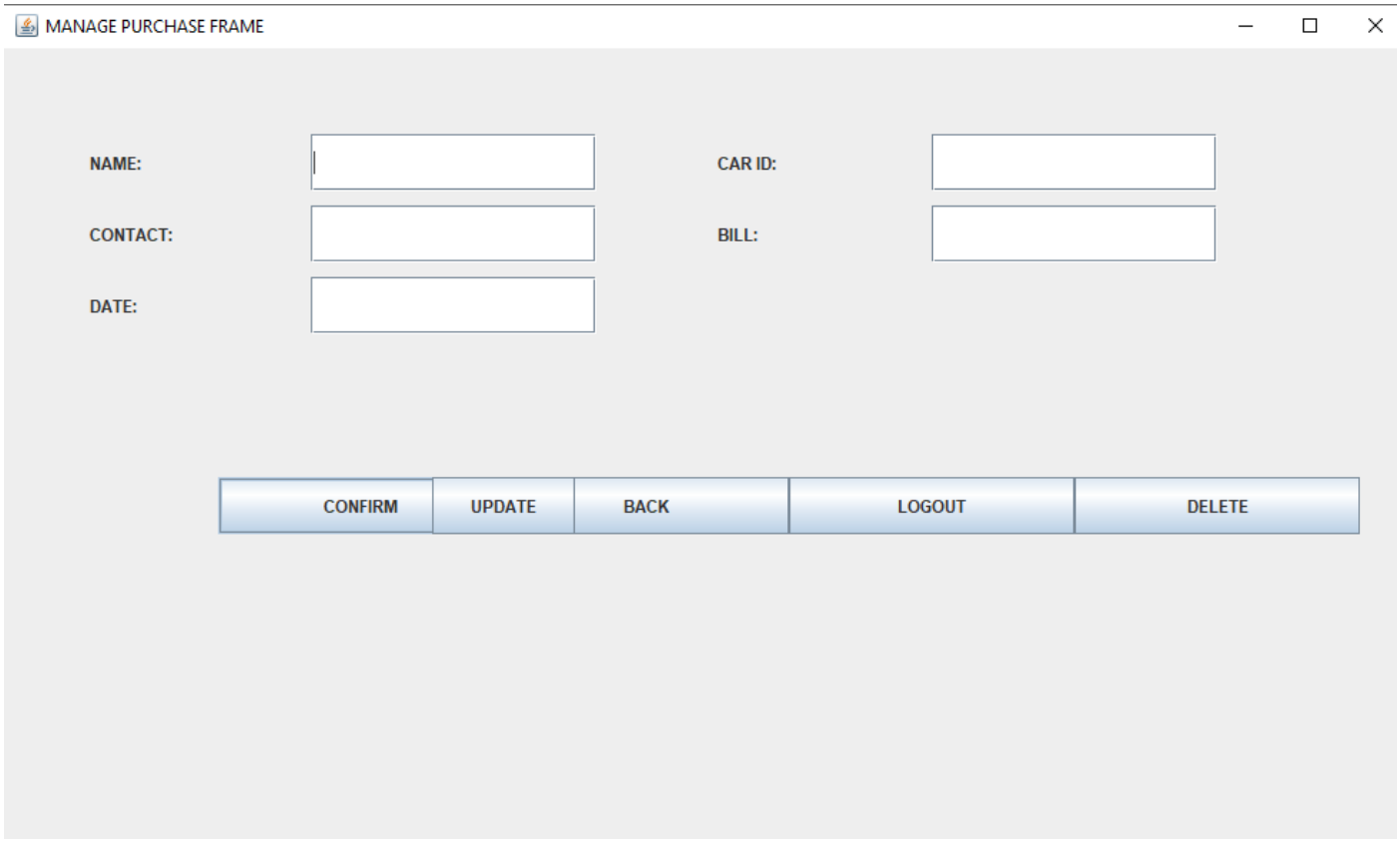
Change Password Frame: In this frame an employee can change his password. For this first he needs to authenticate with his old password.



Manage Purchase Frame: From this GUI the purchases are controlled.



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Database Table Description:

employees:

	#	Name	Type	Collation	Attributes	Null	Default
☐	1	**empId** 🔑	varchar(6)	latin1_swedish_ci		No	*None*
☐	2	**employeeName**	varchar(30)	latin1_swedish_ci		No	*None*
☐	3	**designation**	varchar(20)	latin1_swedish_ci		No	*None*
☐	4	**salary**	double(8,2)			No	*None*

login:

	#	Name	Type	Collation	Attributes	Null	Default
☐	1	**userId** 🔑	varchar(8)	latin1_swedish_ci		No	*None*
☐	2	**password**	varchar(10)	latin1_swedish_ci		No	*None*
☐	3	**status**	int(1)			No	*None*

purchases:

	#	Name	Type	Collation	Attributes	Null	Default
☐	1	**bill_no** 🔑	varchar(6)	latin1_swedish_ci		No	*None*
☐	2	**customerName**	varchar(30)	latin1_swedish_ci		No	*None*
☐	3	**customerContact**	varchar(14)	latin1_swedish_ci		No	*None*
☐	4	**dueDate**	varchar(20)	latin1_swedish_ci		No	*None*
☐	5	**carID**	varchar(6)	latin1_swedish_ci		No	*None*

cars:

	#	Name	Type	Collation	Attributes	Null	Default	C
☐	1	**carID** 🔑	varchar(6)	latin1_swedish_ci		No	*None*	
☐	2	**model**	varchar(15)	latin1_swedish_ci		No	*None*	
☐	3	**manufacturer**	varchar(15)	latin1_swedish_ci		No	*None*	
☐	4	**color**	varchar(15)	latin1_swedish_ci		No	*None*	
☐	5	**manufacturingDate**	varchar(15)	latin1_swedish_ci		No	*None*	
☐	6	**CC**	int(6)			No	*None*	
☐	7	**price**	double(10,2)			No	*None*	

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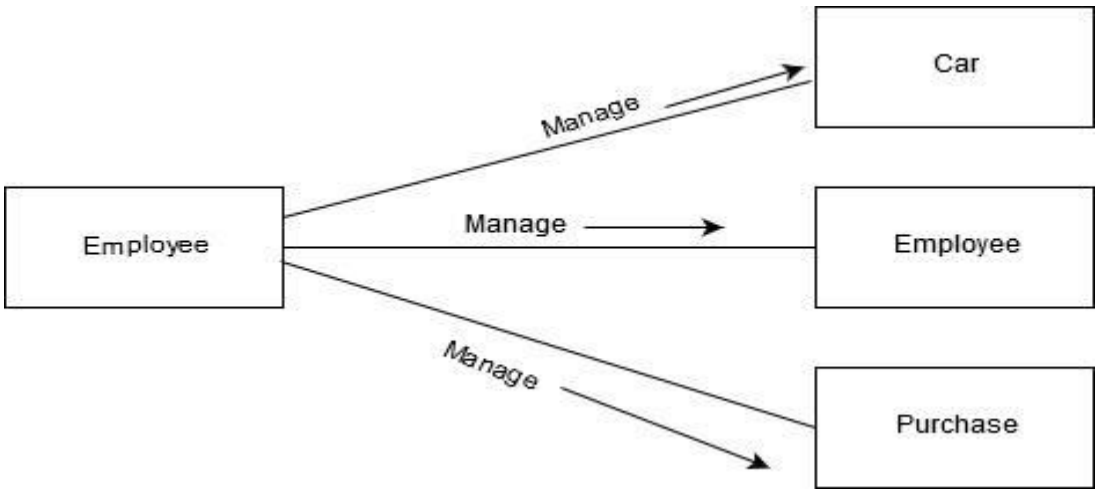
Class Diagram:



Tools Used:

To develop this project we have used the following

- Notepad ++
- JDK
- MySql
- PHPmyAdmin

OOP and Java Concepts Used:

- **Concept 1: Encapsulation:** A mechanism of binding one attribute with a method.
- **Concept 2: Polymorphism:** A concept by which we can perform a single action in different ways.
- **Concept 3: Abstraction:** Hiding the details of anything.
- **Concept 4: Inheritance:** A mechanism of creating a new class from an existing class.
- **Concept 5: Exception Handling:** A mechanism to handle run time errors such as ClassNotFoundException, SQLException etc.

Impact of this Project:

In terms of economical point of view this project can save up a fair amount of money of the owners. This will save a lot of time and effort as it will bring an automation to the records system. Car Showrooms basically have an analog system which is often handwritten. This will change this and digitalize everything.

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Limitations and Possible Future Improvements:

This is a very small project to manage a car showroom. There are many problems with the logics and frame as two of the frames doesn't work properly. Apart from the Manage Employee, Manage Cars, the other options such as Manage Purchase, Change Password isn't working. If it is fixed the system would still have it's limitations. The system has security issues as the normal employees can insert, update, delete the cars as well as they can insert, update or search the information of the customers. Besides the data tables, car and purchases should've had a joining between them using the carID which has not been done. So in future if these problems can be solved and if it goes through proper research and development, this project will surely help the car showroom owners to keep track of their business.