



## **PROJECT: CAR RENTAL COMPANY**

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### **PROJECT MEMBERS:**

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### **INTRODUCTION :**

This Project is designed so as to be used by Car Rental Company specializing in renting cars to customers. It is an online system through which customers can view available cars, register , view profile of drivers with rating and book cars.

### **BACKGROUND :**

The concept of this project selection is taken from the online application particularly named as E-business/E-commerce which basically provides a way to the multi-national company or private organization to sell their products over the internet by providing an environment of online shopping with an interaction of

client and seller. So basically Car-Rental Company deals with the similar concept which provides an online interactivity among Admin and Client .Moreover the research work of the project for the problem understanding can be gather from the website whose link is provided below:

[source:

[https://www.programmingforbeginnersbook.com/blog/what\\_should\\_i\\_make\\_be\\_ginner\\_programming\\_project\\_ideas/](https://www.programmingforbeginnersbook.com/blog/what_should_i_make_be_ginner_programming_project_ideas/) ]

## PROBLEM ANALYSIS :

The step of problem analyzation of Car Rental System can be comprehend by the working principle i.e the admin creates a system which provides the essential facilities to the client which includes rental car records with specifications, driver details with ratings from which client can be able to book multiple cars and choose the driver of their own choice and it also provides the discount coupons to their effective clients only.

Once the client book the vehicle and select the driver, the details of client are stored in client folder which is authorized under the vigilance of Admin Portal. On the basis of which the Bill is generated by the system when the car is returned and the bill receipt is provided to the client which include his/her Name , CNIC number , ID's of Rented Car and the Final Bill amount in PKR.

## METHODOLOGY / IMPLEMENTATION :

The portion of methodology and Implementation are divided into following sections:

- ❖ **Compiler Used:** The project code is compiled and run on the compiler named as Dev C++.

❖ **Programming Tools:** The programming tools used in the project code are as follows:

1. Structures
2. Functions
3. Built-in function ( includes strcpy)
4. Filing
5. Conditional Statements (which includes if-else & switch case)
6. Loops (includes For loop & While loop)
7. Dynamic Memory Allocation (by calloc)
8. 2-D Array

❖ **Working :** In our Project Code there are three libraries used i.e stdio, string and stdlib and there are three functions called in which there are two void and one int function.

The explanation of program working can be explained in detailed as which clears the concept of program Implementation and Methodology:

### **1. Client Part :**

The program first asks the client to enter his/her CNIC number and Name then the void function Print\_Details() is called which holds the data of the car and the data includes car id's , car name and the price per mile of the car and all these elements are stored in the Structure named as Car. Then the program ask the client that how many cars you want to rent and then the client select the car from the given car records by entering the car ids. Moreover the system asks the client that Do you need driver or not? If the client need driver then he select the driver from the driver record which is stored in 2-Dimensional Array which includes driver ids and their rating. Once the client select driver then the driver pay is displayed to the them but if client does not want driver then the program ask user to if he knows the location of garage or shall the company drops the car at client location and then depending upon client response garage location will be provided or client address been asked. Now the client part has been completed.

## **2. Admin Part :**

Now the system asked the Admin to tell about the distance in miles travelled by the car and also tell about the condition of car which client had returned , if the condition is good no penalty is surcharged on total bill but if condition is bad i.e if any damage occurs to the car which includes (Tyre Flat ,Engine Exhaust, Transmission Problem ) then penalty will be surcharged depending on damage occur. Then the system calculates total bill by adding number of miles travelled by the car + driver pay + damage occurs (if) and then the integer function Discount(total) is called in which there are discount available on Total Bill if the bill amount meets the company discount requirements that are mentioned. Now at last the Bill Reciept is generated and given to the client. Now if Admin wants to check the record of total clients who had rented cars from the company then the function Admin \_Portal () is called which holds a file in which the overall record of clients are stored.

## **CONCLUSION :**

The collective efforts of our team aims to facilitate the people renting a car in reasonsable cost and for considerable duration by developing a web-based system that allows customer to register and reserve car online and for the company to effectively manage their car rental business.

