

## **Abstraction**

The Car Rental System is being developed for customers so that they can book their cars from any part of the world. This application takes information from the customers through filling their details. A customer being registered in the website has the facility to book a Car which he requires. The proposed system is completely integrated online systems. It automates manual procedure in an effective and efficient way. This automated system facilitates customer and provides to fill up the details according to their requirements. It includes type of car they are trying to hire and location. The purpose of this system is to develop a web site for the people who can book their Car along with requirements from any part of the world. Car rental system provide Car to User in their location on short time.

## **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 and book car.

### **Reason for project:**

Reason for the Project The advancement in Information Technology and internet penetration has greatly enhanced various business processes and communication between companies (services provider) and their customers of which car rental industry is not left out. This E-Car Rental System is developed to provide the following services:

- Enhance Business Processes: To be able to use internet technology to project the rental company to the global world instead of limiting their services to their local domain alone, thus increase their return on investment (ROI).
- Online Vehicle Reservation: A tools through which customers can reserve available cars online prior to their expected pick-up date or time.
- Customer's registration: A registration portal to hold customer's details, monitor their transaction and used same to offer better and improve services to them.
- Group bookings: Allows the customer to book space for a group in the case of weddings or corporate meetings (Event management).

## **Problem Statement**

A car rental is a vehicle that can be used temporarily for a fee during a specified period. Getting a rental car helps people get around despite the fact they do not have access to their own personal vehicle or don't own a vehicle at all. The individual who needs a car must contact a rental car company and contract out for a vehicle. This system increases customer retention and simplify vehicle and staff management.

## **Motivation**

The probability that the organization is sufficiently motivated to support the development and implementation of the application with necessary user participation, resources training, time etc.

### **Benefits of Online Car Rental Services**

- This online car rental solution is fully functional and flexible.
- It is very easy to use.
- This online car rental system helps in back office administration by streamlining and standardizing the procedures.
- It saves a lot of time, money and labour.
- Eco-friendly: The monitoring of the vehicle activity and the overall business becomes easy and includes the least of paper work.
- The software acts as an office that is open 24/7.
- It increases the efficiency of the management at offering quality services to the customers.
- It provides custom features development and support with the software

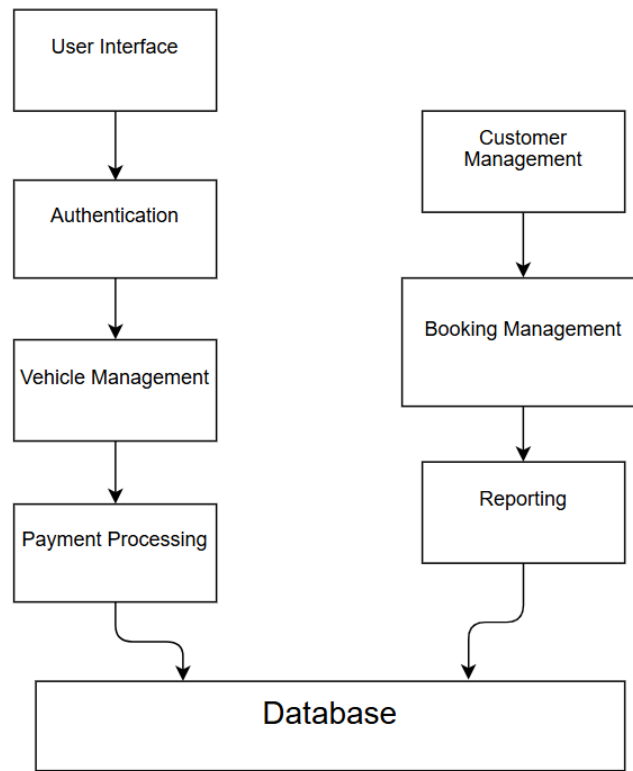
## **Objective**

- To produce a web-based system that allow customer to register and reserve car online and for the company to effectively manage their car rental business.
- To ease customer's task whenever they need to rent a car.

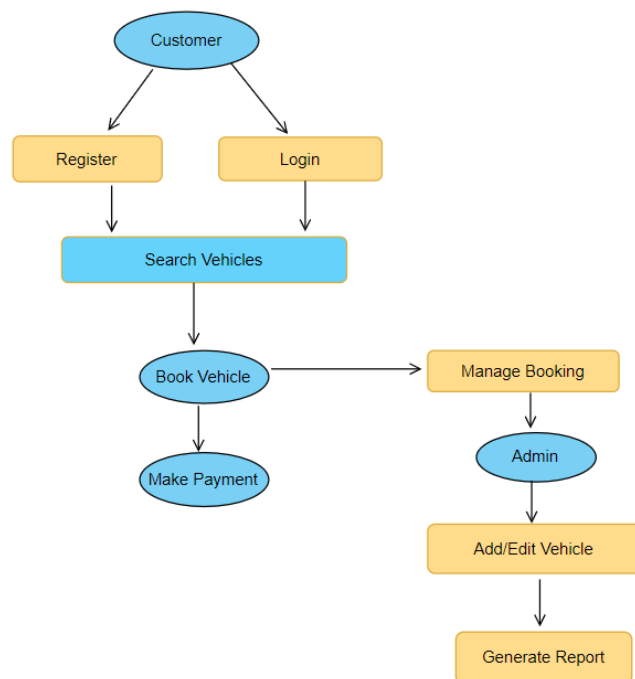
## **Literature survey**

As our structure relies upon the useful Car Renting System which is an authentic application we inspected the present working circumstance of the renting technique. At present renting, organizations are dependent on manual work which consolidates packages of work area work similarly as a human resource

## Block Diagram for car rental system



## Use case Diagram

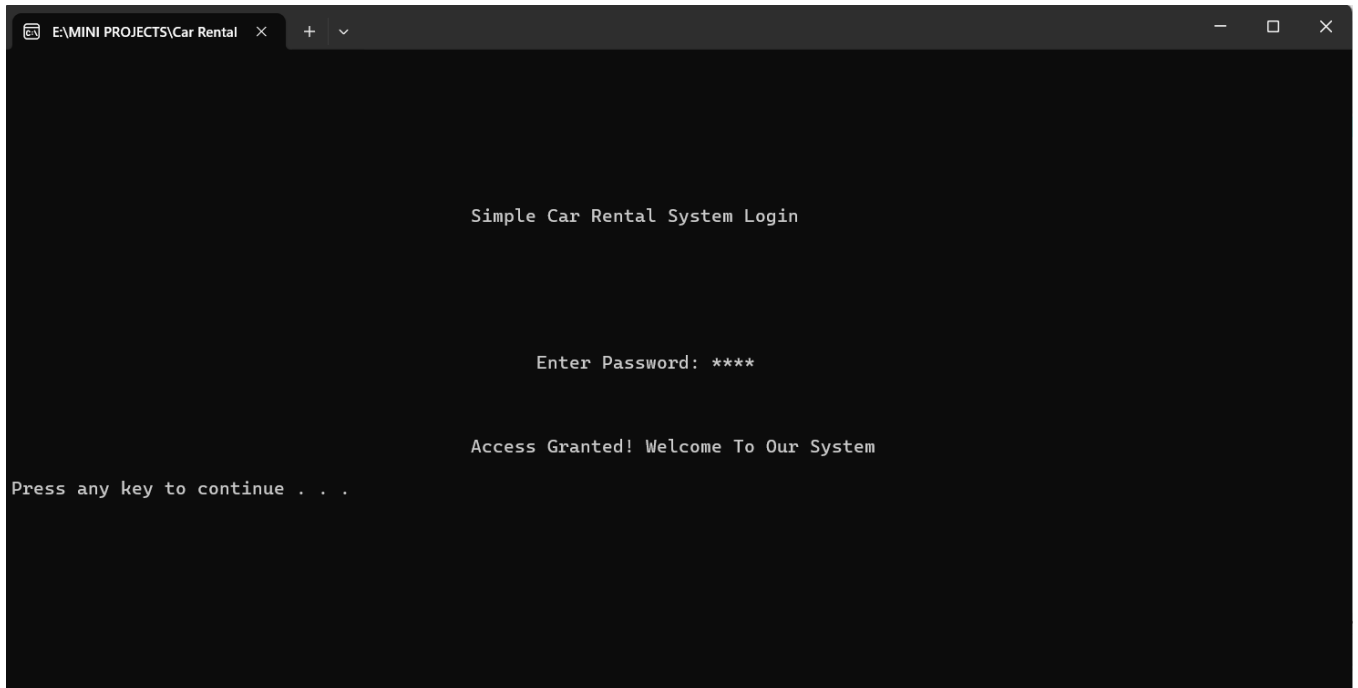


## Methodology

The database was designed on CPPMYADMIN, the back end was developed in simple CPP, and we utilised the same basic CPP codes for the frontend. Software methods are concerned with the process of developing software, not so much with the technical elements as with the organisational ones.

Since the dawn of information technology, a variety of software development methodologies have been employed.

## Implementation



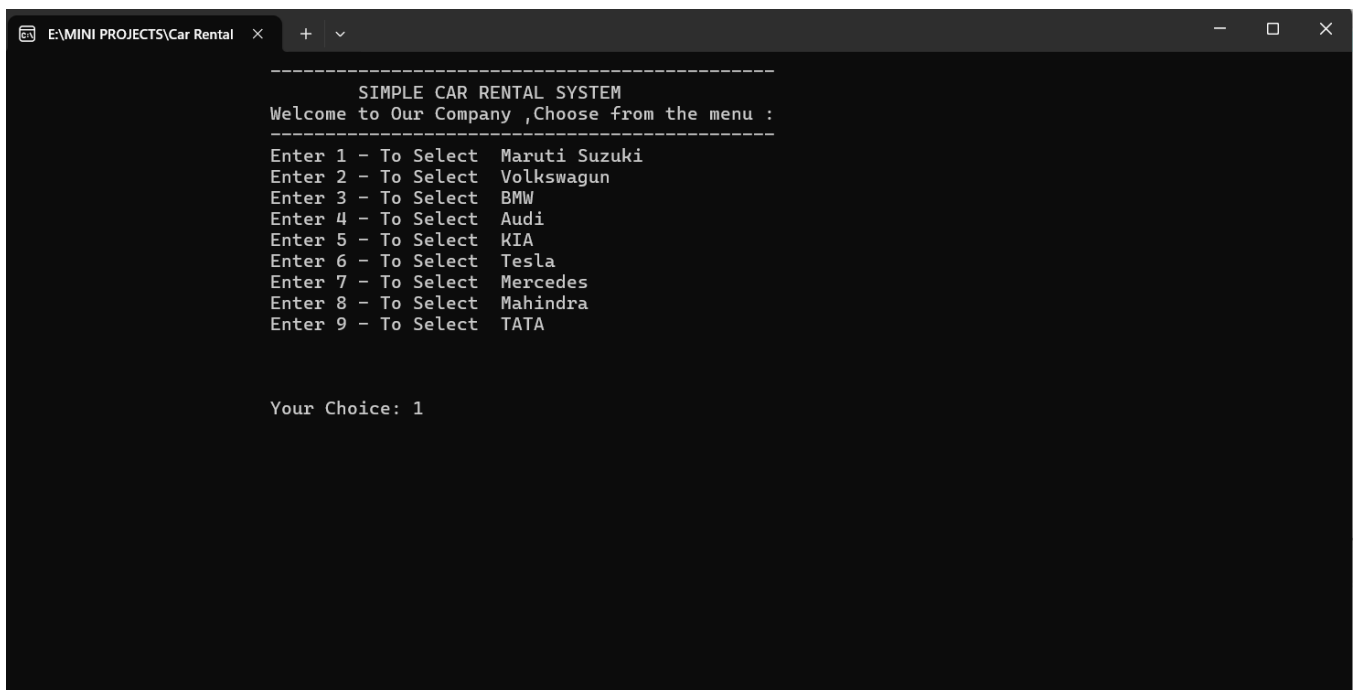
```
E:\MINI PROJECTS\Car Rental >

Simple Car Rental System Login

Enter Password: ****

Access Granted! Welcome To Our System

Press any key to continue . . .
```



```
E:\MINI PROJECTS\Car Rental >

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SIMPLE CAR RENTAL SYSTEM
Welcome to Our Company ,Choose from the menu :
-----
Enter 1 - To Select  Maruti Suzuki
Enter 2 - To Select  Volkswagun
Enter 3 - To Select  BMW
Enter 4 - To Select  Audi
Enter 5 - To Select  KIA
Enter 6 - To Select  Tesla
Enter 7 - To Select  Mercedes
Enter 8 - To Select  Mahindra
Enter 9 - To Select  TATA

Your Choice: 1
```

```
E:\MINI PROJECTS\Car Rental  X + v
-----
You Have Selected - Maruti Suzuki
-----

Model : 800
Color : Yellow
Maximum Speed : 80 Km/h
Price : 1000K

Are You Sure, you want to rent this Car? (yes /no /exit ) : yes|
```

```
E:\MINI PROJECTS\Car Rental  X + v
-----
Please Provide Your Personal Details :
-----

NOTE: PROVIDE FIRST NAME ONLY, DONOT ENTER SPACE WHILE PROVIDING NAME,
PAYMENT WON'T PROCEED IF THE GIVEN AMOUNT IS LESS THEN THE RATE OF CAR

Enter Your Name : Ashwini
Enter Your National ID : 90BN
Payment Amount: 70000
```

-----  
Please Provide Your Personal Details :  
-----

NOTE: PROVIDE FIRST NAME ONLY, DONOT ENTER SPACE WHILE PROVIDING NAME,  
PAYMENT WON'T PROCEED IF THE GIVEN AMOUNT IS LESS THEN THE RATE OF CAR

Enter Your Name : Ashwini  
Enter Your National ID : 90BN  
Payment Amount: 70000

Process has been done successfully!!

Do you want to continue?(yes/no) |

## **Advantages**

- Customer has to make a reservation and later on in the process has to do registration.
- If the customer had already registered himself then he can continue booking in his own account by giving his customer id or mail id.
- The customer can amend details or update his details.
- Maintenance is easy and performance is good
- It is easy to use and understand.
- It reduce the time complexity.

## **Disadvantages**

- Impossible to check technical condition of a car
- Availability of cars when needed
- High rates
- Risk of getting in an accident

## **Future scope**

Scope This project traverses a lot of areas ranging from business concept to computing field, and required to perform several researches to be able to achieve the project objectives. The area covers include:

- Car rental industry: This includes study on how the car rental business is being done, process involved and opportunity that exist for improvement.
- CPP Technology used for the development of the application.
- General customers as well as the company's staff will be able to use the system effectively.
- Web-platform means that the system will be available for access 24/7 except when there is a temporary server issue which is expected to be minimal.

## **Conclusion**

Car rental business has emerged with a new goodies compared to the past experience where every activity concerning car rental business is limited to a physical location only. Even though the physical location has not been totally eradicated; the nature of functions and how these functions are achieved has been reshaped by the power of internet. Nowadays, customers can reserve cars online, rent car online, and have the car brought to their door step once the customer is a registered member or go to the office to pick the car.

The web based car rental system has offered an advantage to both customers as well as Car Rental Company to efficiently and effectively manage the business and satisfies customers' need at the click of a button.

## **References**

- C++ documentation: [cplusplus.com](http://cplusplus.com)
- Object-Oriented Programming principles: OOP Concepts