



# **CAR RENTAL SYSTEM**

Submitted in the partial fulfillment for the award of the degree of

**BACHELOR OF ENGINEERING**

**IN**

**COMPUTER SCIENCE WITH BIG DATA ANALYTICS**

**PRESENTED BY :**

ASHRITH RAVIKANTI (20BCS4378)

VIVEK BAITARU (20BCS4403)

APEKSHA GUPTA(20BCS4390)

**Under the Supervision of:**

**MS. MONIKA**



# OUTLINE

- Introduction
- Objective
- Tools Required
- Methodology
- Results and output
- Problem Formulation
- Conclusion
- Future scope
- References





# INTRODUCTION

- o The concept aims for automobile rental businesses to hire out their vehicles to clients. This program aids in the addition and management of automobile data as well as the admin's understanding of the consumers. This initiative aids users in the rental of automobiles.
- o Vehicle transactions, such as vehicle details and driver information, are stored in the car rental system.



On each transaction, the system aims to manage its vehicle usage. This will simplify the process of recording vehicle booking transactions, listing and sorting their booking transaction reports, providing accurate information such as car availability on a daily basis, and easing the burden of paperwork.





# OBJECTIVE

This project is intended to assist a vehicle rental firm in allowing automobile rentals to be made using an internet system. It allows users to browse for available vehicles, see profiles, and book automobiles for a certain amount of time.

- It offers an easy-to-use interface that allows users to search for vehicles and hire them for the time period they want. They might also pay through the internet.
- The rental automobiles will be divided into categories such as economy, premium, and so on. The user will be able to make reservations based on the sort of automobile that the client requires.



# TOOLS REQUIRED

## HARDWARE SPECIFICATIONS:

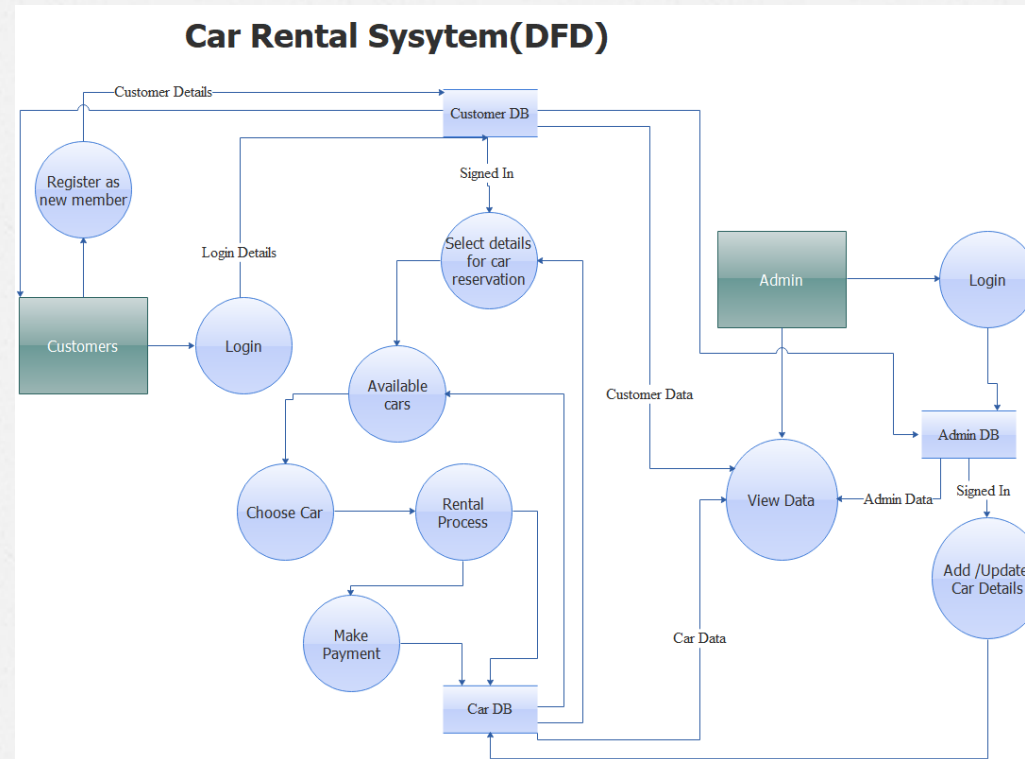
1. Processor Intel dual core
2. RAM 8GB
3. Monitor 15 inch color
4. HDD Minimum 20 GB
5. Key board Standard 102 keys
6. Mouse 3 buttons

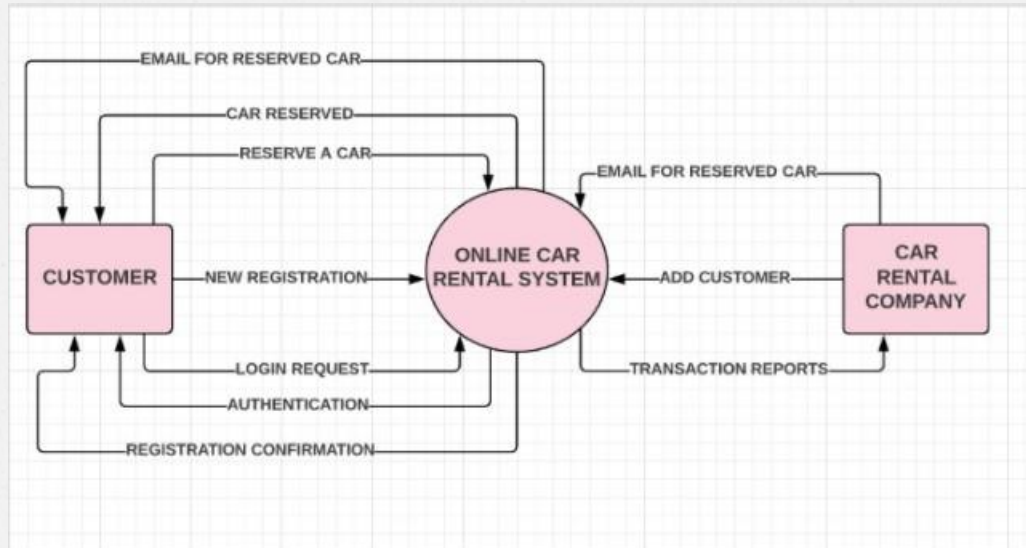
## SOFTWARE SPECIFICATIONS:

1. Operating system Windows 10
2. Code Editor Visual Studio Code
3. Environment MINGW
4. Language C++



# METHODOLOGY USED





Data flow diagram of level 0





# RESULTS

```
C:\Users\vivek\Desktop\Untitled1.exe

1. MINIMUM TIME TO RENT A CAR IS 3 HOURS
2. ANY PENALTIES LEVIED SHOULD BE PAID BY THE CUSTOMER
3. INCASE OF ACCIDENT, INCURRED LOSSES SHOULD BE PAID BY THE CUSTOMER
4. LISTED DOCUMENTS ARE MANDATORY
   ♥COPY OF LICENSE
   ♥DEPOSIT (BASED ON CAR TYPE)
5. ADDITIONAL CHAGES SHALL BE LAID IN CASE OF LATE RETURNING
6. WEAR SEATBELT & DRIVE SAFE

PRESS ANY KEY TO CONTINUE :)
_
```

Terms and conditions



# Main Menu

1. ADMIN
2. USER
3. EXIT
4. MENU
5. TNC

INPUT :



# ADMIN INTERPHASE

The administrator logs into the admin interface using his password and can

1. Add An Admin
2. Remove An Admin
3. Access To Data
4. Add A Car
5. Delete A Car
6. Can Reset The Car List

1. ADD ADMIN
2. SHOW DATA
3. ADD CAR
4. DELETE CAR
5. RESET AVAILABLE CAR
6. LOG OUT

INPUT :

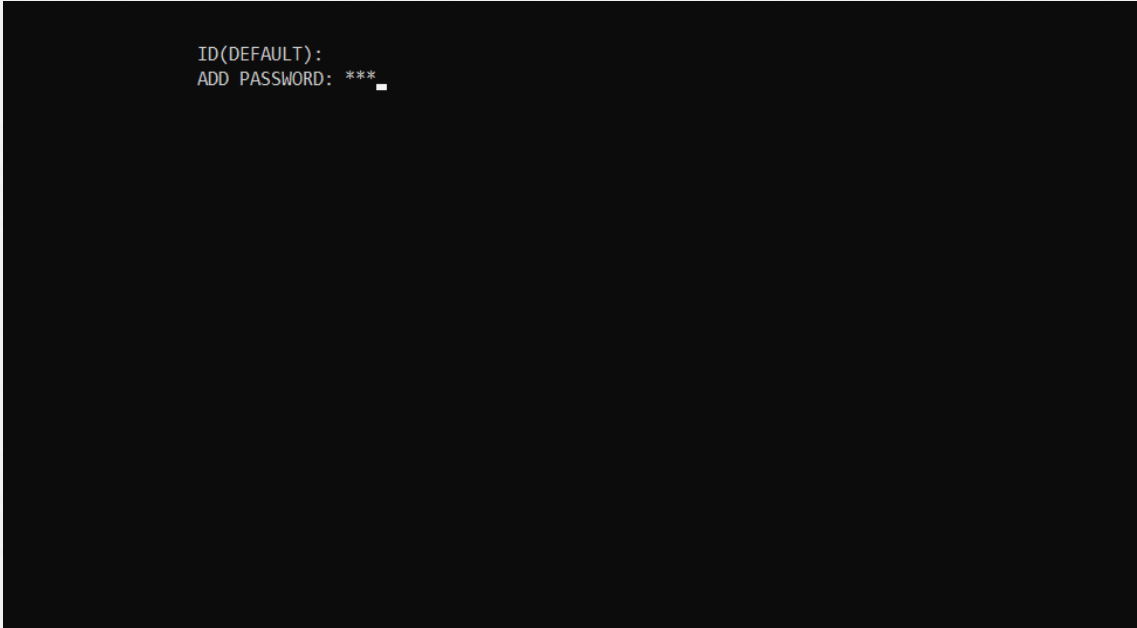
## IN ADMIN





## ADD ADMIN & REMOVE ADMIN

An Administrator can add another administrator and also can remove the existing administrator, By using the add & remove admin options.

A screenshot of a terminal window with a black background. It shows two lines of text: 'ID(DEFAULT):' followed by a cursor, and 'ADD PASSWORD: \*\*\*' followed by a cursor.

```
ID(DEFAULT):  
ADD PASSWORD: ***
```

# SHOW DATA

The admin can access the car data as well as user data by selecting show data option.

Plate Number	Brand	Model	Capacity	Colour	Rate Per Hour	Rate Per 12 Hour	Rate Per 24 Hour	Transmission
AP23EH2209	BMW	M3	1.5	BLACK	800	6	4+1	AUTO
TSAP23EH2209	BMW	M3	1.5	BLACK	800	6	4+1	AUTO
P24TH3456	MARUTI	800	1	GREY	500	4	4+1	MANUAL
P24TH3456	MARUTI	800	1	GREY	500	4	4+1	MANUAL





# ADD CAR

Admin can add a new car by adding the following information

Plate Number
Brand
Variant
Engine Capacity
Colour
Rate Per Hour
Transmission
Seating Capacity
Mileage

Please enter the car data below :

```
Plate number :: AP23ET2009  
Brand :: BMW  
variant :: M3  
engine capacity :: 1.5  
colour :: BLACK  
rate :: 800  
transmission :: AUTO  
seating capacity :: 4  
mileage :: 6_
```





# DELETE CAR

Admin can delete a car by entering the plate number of the respective car.

```
C:\Users\vivek\Desktop\Untitled1.exe
Plate Number  Brand  Model  Capacity  Colour  Rate Per Hour  Rate Per 12 Hour  Rate Per 24 Hour  Transmission
=====
AP23ET2009   BMW    M3      1.5      BLACK   800            6                4                AUTO

Enter the car plate number that are going to be deleted (CAPITAL LETTER W/OUT SPACE):
```



# RESET AVAILABLE CARS

Admin Can Erase The Car Data Completely By just choosing that option.



# USER INTERPHASE

A Person Can Login Through User Interphase To Rent A Car .

```
1. NEW  
2. EXISTING  
3. MAIN MENU
```

```
INPUT : _
```



# NEW USER

The following information should be entered by the new user before renting a car. An existing user can log in using his login credentials and book a car.

Please enter the data below :

Name : VIVEK  
Phone Number : 0987654332  
license : TSP0E32345  
Address : HYDERABAD  
ID : TSGwV234YUOI



# RENTING A CAR

The user must first choose a car by entering its licence plate number, then the total number of hours he desires to hire, and lastly the necessary payment will be presented on the screen. As a consequence, the user should pay for the rental automobile and make a payment.

WELCOME VIVEK			ID AP234TSPORERTYP					
Plate Number	Brand	Model	Capacity	Colour	Rate Per Hour	Rate Per 12 Hour	Rate Per 24 Hour	Transmission
AP23EH2209	BMW	M3	1.5	BLACK	800	6	4+1	AUTO
TSAP23EH2209	BMW	M3	1.5	BLACK	800	6	4+1	AUTO
P24TH3456	MARUTI	800	1	GREY	500	4	4+1	MANUAL
P24TH3456	MARUTI	800	1	GREY	500	4	4+1	MANUAL

Please select car  
Plate Number :

# PROBLEM FORMULATION

- o This project includes a wide variety of topics, from business ideas to computers, and it necessitated the completion of several research in order to achieve the project's objectives. The following topics are covered:
- o Vehicle rental sector: This involves research on how the car rental industry operates, the processes involved, and the opportunities for improvement.
- o The C++ programming language was used to build the program e.



# CONCLUSION

- When compared to previous experiences, when every activity related to vehicle rental business was restricted to a physical place only, the car rental industry has emerged with new goods.
- Customers may now book vehicles online, rent automobiles online, and have the car delivered to their doorstep if they are a registered member, or they can travel to the office to pick up the car.
- The web-based vehicle rental system has benefited both clients and the car rental company by allowing them to operate their business more efficiently and effectively.

## FUTURE SCOPE

- We can make this c++ programme an android application in the future, as well as update many other features, such as adding photos to the application utilising cutting-edge technology.
- We can even ask the customer to provide the id proof.  
i.e,(Aadhar or any government ID)



# REFERENCES

1. <https://www.geeksforgeeks.org/file-handling-c-classes/>
2. [https://www.google.com/url?sa=t&source=web&rct=j&url=http://www.cplusplus.com/forum/general/3766&ved=2ahUKEwiTnLeXyebxAhWWzzgGHXvnAI4QFnoECAMQAQ&usg=AOvVaw2je3mzj0WclDAS\\_qR3lWXR](https://www.google.com/url?sa=t&source=web&rct=j&url=http://www.cplusplus.com/forum/general/3766&ved=2ahUKEwiTnLeXyebxAhWWzzgGHXvnAI4QFnoECAMQAQ&usg=AOvVaw2je3mzj0WclDAS_qR3lWXR)
3. <https://stackoverflow.com/questions/15914839/unable-to-read-a-text-file-in-c>
4. <https://www.geeksforgeeks.org/convertng-strings-numbers-cc/>
5. <https://www.cplusplus.com/reference/ctime/>
6. <https://www.geeksforgeeks.org/stringstream-c-applications/>



**THANK YOU**