

DSA LAB SEMESTER PROJECT

Project Report

“CAR MANAGEMENT SYSTEM”

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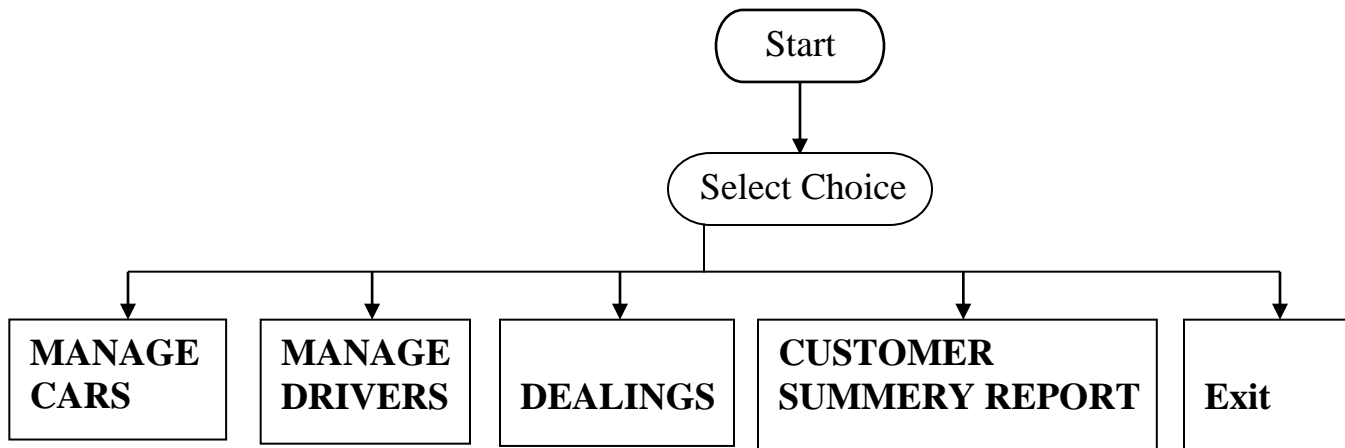
INTRODUCTION:

Now a days, every car showroom manager has need to maintain customers, drivers and cars details. With this program, manager can easily and conveniently maintain the all showroom details.

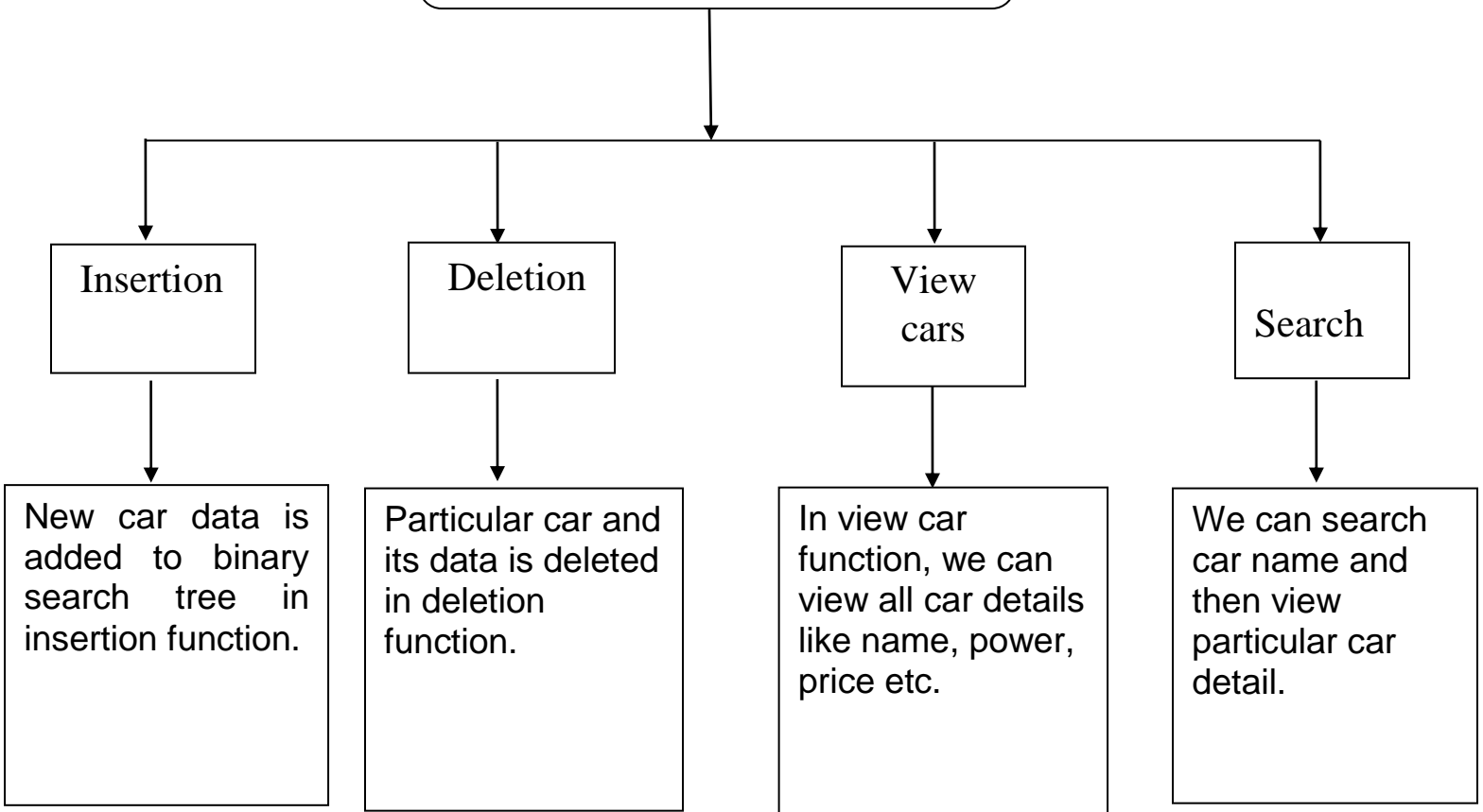
Functionality:

In “**car management system**” project, enter the input as all car details (car number, car name, engine number, power, price, model of car) & driver’s information. Then you can perform sale, buy, rent & lease car functions.

PROJECT DIAGRAM:



MANAGE CARS



MANAGE DRIVERS



```
graph TD; A[MANAGE DRIVERS] --> B[ADD DRIVERS]; A --> C[REMOVE]; A --> D[VIEW DRIVE]; B --> E[New driver data is added to stack in add driver function.]; C --> F[Particular driver data is deleted in deletion function from stack.]; D --> G[In view driver function, we can view all driver details like name, ID, license holder etc.];
```

The diagram is a flowchart titled 'MANAGE DRIVERS'. It starts with a central header box. From this header, three arrows point downwards to three separate boxes: 'ADD DRIVERS', 'REMOVE', and 'VIEW DRIVE'. Each of these three boxes then has an arrow pointing down to a larger box containing a descriptive sentence. The 'ADD DRIVERS' box points to a box stating that new driver data is added to a stack. The 'REMOVE' box points to a box stating that particular driver data is deleted from the stack. The 'VIEW DRIVE' box points to a box stating that in the view driver function, all driver details like name, ID, and license holder can be viewed.

ADD
DRIVERS

New driver data is added to stack in add driver function.

REMOVE

Particular driver data is deleted in deletion function from stack.

VIEW
DRIVE

In view driver function, we can view all driver details like name, ID, license holder etc.

DEALINGS

```
graph TD; DEALINGS[DEALINGS] --> SALE_CAR[SALE CAR]; DEALINGS --> RENT_CAR[RENT CAR]; DEALINGS --> LEASE_CAR[LEASE CAR]; DEALINGS --> BUY_CAR[BUY CAR]; SALE_CAR --> SALE_CAR_DESC[Customer sales a car. We collect data about car. Then insert data into manage cars (binary search tree).]; RENT_CAR --> RENT_CAR_DESC[We provide cars on rent. Rent charges are 3000rs for car 2000rs for driver. This is done by deleting car from manage car function.]; LEASE_CAR --> LEASE_CAR_DESC[We provide cars on lease. Lease charges are 5% extra for 1 year and 10% extra for 2 years. This is done by deleting car from manage car function.]; BUY_CAR --> BUY_CAR_DESC[We sale a car. First we show all cars to our customer .customer select a car and then we show the price of that particular car to the customer.];
```

SALE CAR

Customer sales a car.
We collect data about car.
Then insert data into manage cars (binary search tree).

RENT CAR

We provide cars on rent.
Rent charges are 3000rs for car 2000rs for driver.
This is done by deleting car from manage car function.

LEASE CAR

We provide cars on lease.
Lease charges are 5% extra for 1 year and 10% extra for 2 years.
This is done by deleting car from manage car function.

BUY CAR

We sale a car.
First we show all cars to our customer
.customer select a car and then we show the price of that particular car to the customer.

OUT PUT OF PROGRAM

MAIN MENU:

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=====
=====
~ CARS MANAGEMENT SYSTEM ~
=====
=====

1.MANAGE CARS
2.MANAGE DRIVERS
3.DEALING CARS
4.CUSTOMERS SUMMARY REPORT
5.EXIT.

Please enter a number : █
```

MANAGE CARS:

```
=====
===== MANAGE CARS =====
=====

1.VIEW CARS
2.ADD CARS
3.SEARCH CARS
4.BACK TO MENU
5.EXIT

Please enter a number :
```

ADDITION OF NEW CARS:

In (add new car) option add the car details such as car number, car name, engine number, power , price, model of car.

VIEW CARS:

```
=====
=====  MANAGE CARS  =====
=====

1.VIEW CARS
2.ADD CARS
3.SEARCH CARS
4.BACK TO MENU
5.EXIT

Please enter a number : 1

Car #          | Name      | Engine Name | CC      | Price
| 1            | suzuki    | 57          | 345     | 3000000
| 2            | wagnor    | 455         | 678     | 2000000

Press any key to continue . . . ■
```

SEARCH CAR:

SEARCH: In search option, search the information about particular car, such as car number, car name, engine number, power, price, model of car.

```
=====
=====  MANAGE CARS  =====
=====

1.VIEW CARS
2.ADD CARS
3.SEARCH CARS
4.BACK TO MENU
5.EXIT

Please enter a number : 3

Enter car no :1
| 1            | suzuki    | 57          | 345     | 3000000

Press any key to continue . . .
```

MANAGE DRIVERS:

ADD DRIVERS

In (add driver) option, add the driver details such as driver ID number, driver name, phone number, license holder.

```
=====
=====  MANAGE DRIVERS  =====
=====

1.ADD DRIVER
2.REMOVE DRIVER
3.VIEW DRIVER LIST
4.BACK TO MENU
5.EXIT

Please enter a number : 1

Enter you name :junaid
Enter you ID number :345675
Enter you contact number :0343356
Enter you age :21
Are you license holder? (Y/N) :Y_
```

DRIVER LIST:

- VIEW DRIVER LIST:

In (view driver list) option, we can see all drivers along with details.

```
=====
=====  MANAGE DRIVERS  =====
=====

1.ADD DRIVER
2.REMOVE DRIVER
3.VIEW DRIVER LIST
4.BACK TO MENU
5.EXIT

Please enter a number : 3

|Name          |ID #      |Age      |Phone #      |License Holder
| junaid       | 345675    | 21      | 0343356     | YES
Press any key to continue . . . _
```


DEALINGS:

In dealings, we delete the record of particular car number, car name, engine number, power, price, model of car.

```
=====
===== DEALING CARS =====
=====
1.SALE CARS
2.RENT CAR
3.LEASE CAR
4.BUY CAR
5.BACK TO MENU
6.EXIT

Please enter a number :
```

SALE CAR:

```
=====
===== DEALING CARS =====
=====
1.SALE CARS
2.RENT CAR
3.LEASE CAR
4.BUY CAR
5.BACK TO MENU
6.EXIT

Please enter a number : 1

Enter car no :1
Enter engine no : 4564
Enter engine cc : 67677
Enter car name : suzuki
Enter car price :2000000
Press any key to continue . . .
```

RENT CAR:

```
=====
===== DEALING CARS =====
=====

1.SALE CARS
2.RENT CAR
3.LEASE CAR
4.BUY CAR
5.BACK TO MENU
6.EXIT

Please enter a number : 2

Car #      | Name      | Engine Name | CC      | Price
| 1         | suzuki    | 4564        | 67677   | 2000000
| 2         | wagnor    | 5454        | 43434   | 3000000
| 3         | avr       | 4345        | 54545   | 3500000

Do you need a driver (Y/N): █
```

```
Car #      | Name      | Engine Name | CC      | Price
| 1         | suzuki    | 4564        | 67677   | 2000000
| 2         | wagnor    | 5454        | 43434   | 3000000
| 3         | avr       | 4345        | 54545   | 3500000

Do you need a driver (Y/N): Y

                                OPERATION PERFORMED SUCCESSFULLY!!!

                                OUR PER DAY CHARGES OF RENT ARE 3000 ruppies'
                                OUR PER DAY CHARGES OF DRIVER ARE 2000 ruppies

FOR HOW MANY DAYS YOU WANT TO RENT A CAR. : 4

Enter a car no which do you want : 2

                                THANKS FOR SELECTING THIS CAR

                                YOUR RENT CHARGES FOR 4 DAYS ARE :14000
Press any key to continue . . . █
```

LEASE CAR:

```
Please enter a number : 3

Car #      | Name      | Engine #   | CC      | Price
| 1         | | suzuki   | | 8       | | 1600    | | 360000
| 2         | | civic    | | 8       | | 1800    | | 360000

Enter your name : kashif
Enter your contact : 03451522
Enter a car no which do you want : 1

THANKS FOR SELECTING THIS CAR

WE CHARGE 5% EXTRA TAX FOR 1 YEAR & 10% EXTRA FOR 2 YEAES
FOR HOW MANY YEARS YOU WANT INSTALLMENT : 1
ORIGNAL PRICE OF YOUR SELECTED CAR IS : 360000

YOUR TOTAL PAYMENT IS :378000

YOUR PER MONTH INSTALLMENT IS :31500
Press any key to continue . . .
```

BUY CAR:

```
===== DEALING CARS =====  
=====   
1.SALE CARS  
2.RENT CAR  
3.LEASE CAR  
4.BUY CAR  
5.BACK TO MENU  
6.EXIT  
  
Please enter a number : 4  
  
Car #      | Name      | Engine Name | CC      | Price  
| 1        | | suzuki    | | 4455   |  
  
Enter a car no which do you want : 1  
  
THANKS FOR SELECTING THIS CAR  
  
YOUR TOTAL PAYMENT IS :2000000  
  
Press any key to continue . . .
```

CUSTOMER SUMMERY REPORT:

Customer summery report contains customer details along with selected car.

```
=====   
===== SUMMARY REPORT =====  
=====   
  
Name      | Phone #   | Car #   |  
kashif    | 03451522 | 1       |  
Press any key to continue . . . ■
```