Car Rental System

A Project Work

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

BACHELOR OF ENGINEERING

IN

CSE Information Security

Submitted by:

Saroj Shandiliya (20BCS3689)

Jaswant Singh(20BCS3677)

Anurag Mishra(20BCS3691)

Under the Supervision of:

Er. Harmandeep Kaur

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING APEX INSTITUE OF TECHNOLOGY

CHANDIGARH UNIVERSITY, GHARUAN, MOHALI - 140413, PUNJAB

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DECLARATION

I, **'Anurag Mishra'**, student of **'Bachelor of Engineering in Branch Name'**, **session:2020-2024**, Department of Computer Science and Engineering, Apex Institute of Technology, Chandigarh University, Punjab, hereby declare that the work presented in this Project Work entitled '**Car Rental System'** is the outcome of our own bona fide work and is correct to the best of our knowledge and this work has been undertaken taking care of Engineering Ethics. It contains no material previously published or written by another person nor material which has been accepted for the award of any other degree or diploma of the university or other institute of higher learning, except where due acknowledgment has been made in the text.

Anurag Mishra
Candidate UID: 20BCS3691

Date: 26 July 2021

Place: Lucknow

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Introduction

- **Problem Definition:**

  The problem with the basic approach of renting cars was that it was quite basic and was very much dependent on pen and paper method where there it was no way in which different department in the same organization could know the real time data of cars and changing of rent rates for cars was not possible real time.

- **Project Overview:**

  The project that is the Car Rental System here deals with the various problem faced by the vendors of this Car rental business and as mentioned in the Problem Definition where we took the whole pen and paper approach to a digital and well oriented manner, where the rent rates could be fixed at once and it was easy for sales persons to keep track of the cars.

- **Hardware Specifications:**

  1. Computer
  2. 2 GB Ram (*minimum*)
  3. Pentium 3 (*or higher*)

- **Software Specification:**

    1. Operating sys: Microsoft Windows 3.1 or later,
    2. Microsoft DOS, PC DOS
    3. Any C/C++ Compiler

Problem Formulation

The problem with the basic approach of renting cars was that it was quite basic and was very much dependent on pen and paper method where there it was no way in which different department in the same organization could know the real time data of cars and changing of rent rates for cars was not possible real time.

Now actually what happened was that there were different sales person at different points in a city/town and there were either individual or grouped vendors, now the problem here was that the main agency here had different rates depending on the different days or festive days but communication was a big issue from the main agency to the different sales point and not just the rate but the cars to rent was also a problem.

The major Problem we could formulate form the above related problems were the pen and paper approach that the Car Rental business was using in their day-to-day business.

Objectives

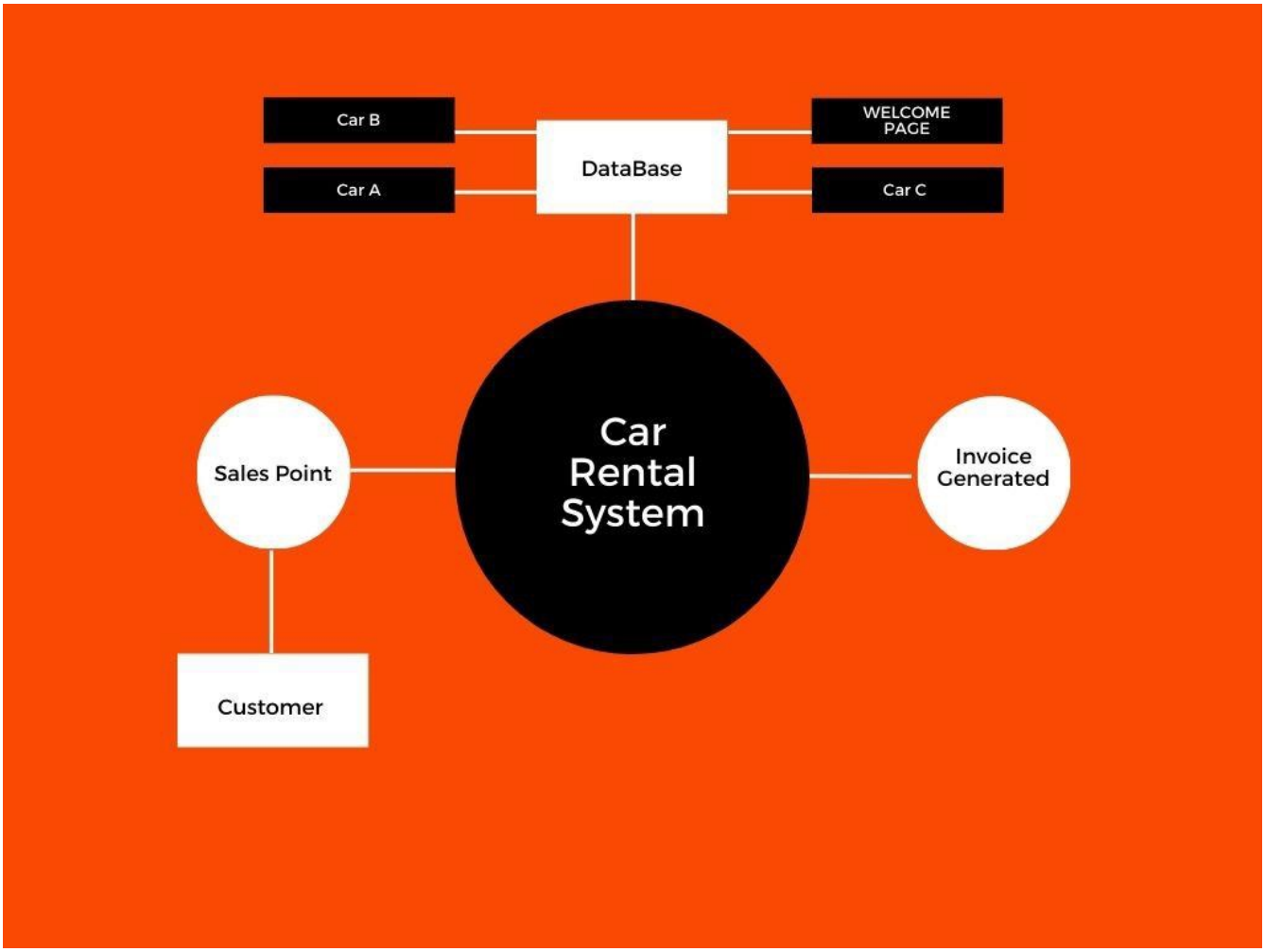
- **Simple way of invoice.**

- **Simple and Easy way to add vehicles.**

- **Design from a sales point perspective:**
  The design of the project is based from a sales point perspective where the data here can be loaded daily and the sales person can enter the software using his/her password and generate invoices.

- **Better approach of communication:**
  Among the Sales point and the agencies as the data can be loaded daily or on the agency basis and then the data invoice can be generated.

Methodology



[fig: 1.1]

The problems we found during the problem formulation gave us a brief inside as to what was the element that was missing which created these problems and so we came to a solution where we designed a software solution (*as explained in fig:1.1*) the Car Rental System which is designed from a sales point perspective where the customer comes to the sales point and enquires for a car and the sales person here enters his/her password to login the system and then enters the Customer's name and then the system tell the sales person about the vehicles available from which the customer can

choose and once selected the customer is asked for the number of days he/she wants the car to be rented and hence the invoice is generated.

Concepts Used:

1. Concept of class and object
2. Class inheritance
3. if else statements
4. File handling
5. While statements
6. Set width

Additional concepts

7. Sleep function
8. system CLS function

Conclusion

The project on the Car Rental System is an effective and simple solution to the various problems faced by the car rental business, but the solution can be updated with the various different requirements of different business and future requires much more study and research of the various other issues faced in the car rental business, as we had limited time so we just selected a part of the issue that was basically focused on the sales point perspective. But there are various other problems that require more of research and time.

References

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