A Mini Project Synopsis on

Car Rental System

S.E. - I.T Engineering

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CERTIFICATE

This to certify that the Mini Project report on Car Rental System has been submitted by Akshit Lokhande(21104049),Aashay Ingale(21104009),Prasidh Kunder(21104046) who are a Bonafede students of A. P. Shah Institute of Technology, Thane, Mumbai, as a partial fulfilment of the requirement for the degree in **Information Technology**, during the academic year **2020-2021** in the satisfactory manner as per the curriculum laid down by University of Mumbai.

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Chapter 1

Introduction

A car rental system is a service that allows individuals or businesses to rent vehicles for a specific period of time. Car rental companies typically have a fleet of vehicles that are available for rental, and customers can choose from a variety of models and features based on their needs and preferences. The rental process usually requires customers to provide a valid driver's license, proof of insurance, and a credit card to cover the rental fees and any potential damages or additional charges. Car rental systems offer a convenient and cost-effective way for individuals and businesses to access reliable transportation for their various needs. Car rental systems offer a wide range of vehicles to choose from, including economy cars, luxury cars, SUVs.

1.1. Purpose:

1. Car rental systems can be used for personal travel as well, whether for vacations or day trips. Renting a car can provide access to a wider range of vehicles than a person may own, allowing them to choose a car that is best suited for their travel needs.

2. Allowing customers to select the type of vehicle that best suits their needs. This can be helpful for people who need a specific type of vehicle for a particular trip or event.

3. Convenience: Car rental systems provide a convenient way to access transportation without the need to own a vehicle.

1.2 Objectives:

1. To provide customers with reliable, efficient, and cost-effective transportation services.

2. To implement well-maintained, clean, and up-to-date which provide customers with a safe and enjoyable driving experience.

3. To provide a high level of customer service and offering flexible rental options,

4. To offer the best of rates and include the different categories of cars from luxury to budget.

1.3 Scope:

1. Promoting sustainability: The car rental system promotes sustainability by reducing its carbon footprint, using fuel-efficient vehicles, and implementing environmentally friendly practices in its operations.

2. Car rental provides you the ease of renting a vehicle and then riding it like you own it with a certain amount of charges.

3. Car rental helps you save a lot of money. By renting a car from a company, you get to save a lot of money which you would have otherwise wasted on your travel from one end to the other.

Chapter 2

Problem Definition

One problem that can be identified with car rental systems is the issue of availability and accessibility. While car rental systems offer convenience and flexibility, there may be times when customers are unable to rent a car due to availability issues. This can be especially problematic during peak travel seasons or in high-demand locations. Another problem that can be identified with car rental systems is the issue of cost. While car rental systems can be cost-effective compared to owning a car, the total cost of a rental can be high if additional fees, such as insurance, fuel, and surcharges, are added on. This can make car rentals unaffordable for some customers, especially those on a tight budget. Additionally, there can be concerns around the quality and maintenance of the rental cars. Customers may encounter issues with the cleanliness or condition of the vehicle, and may experience delays or inconvenience due to maintenance issues.

Finally, there can be issues related to the customer experience, such as long wait times for rental pickup or drop-off, complicated booking and payment systems, and limited customer service options. These issues can negatively impact the overall experience of using a car rental system, and may discourage customers from using the service again in the future.

Chapter 3

Proposed System

3.1 Features and Functionality:

Online booking: Most car rental systems offer an online booking system that allows customers to reserve a vehicle from the comfort of their own home or office.

Vehicle selection: Car rental systems typically offer a variety of vehicles to choose from, including different models, sizes, and types, such as sedans, SUVs

Flexible rental periods: Car rental systems allow customers to choose the length of their rental period, which can range from a few hours to several weeks or even months.

Pick-up and drop-off locations: Car rental systems typically offer multiple pick-up and drop-off locations, which can be convenient for customers who need to rent a car in one location and return it in another.

Mobile access: Many car rental systems offer a mobile app that allows customers to book a rental, manage their reservation, and access customer service support on-the-go.

Overall, the features and functionality of car rental systems are designed to provide customers with a convenient, flexible, and reliable way to access transportation for a variety of needs.

Chapter 4

Project Outcomes

The car rental system has a secure authentication process that verifies the identity of the user before allowing them to book a car. The system allows users to book vehicles that are available during the requested time frame. Allows customers to book a rental vehicle online through a user-friendly interface, including selecting the pick-up and drop-off locations and times. Allows rental companies to manage customer information, including their contact details, rental history allows customers to book and manage their rental vehicles through a mobile app, making it even more convenient and accessible for them

Chapter 5

Software Requirements

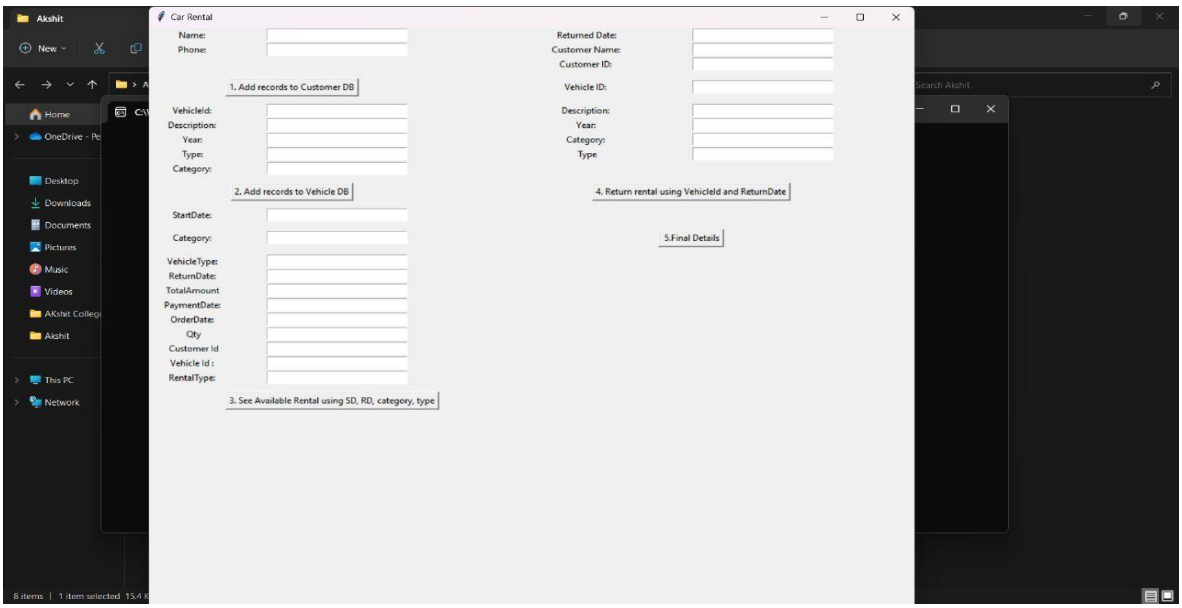
For this project we used different software and technologies.

The main software’s used were:

1. Python (Tkinter)
2. MySQL

Chapter 6

Project Design



Chapter 7

Project Scheduling Template

Sr. No	Group Member	Time duration	Work to be done
1	Akshit Lokhande	1st week of january	Implementing 1st module/ functionality Learnt basics of PyCharm and followed Tkinter tutorials. Implemented GUI using Tkinter
		2nd week of january	Testing 1st module GUI ready along with the feedbacks of guide and implemented the task. Added some new features as per the feedback
2	Aashay Ingale	3rd week of january	Implementing 2nd module/ functionality Implementation of Database Connectivity using Python.
3	Prasidh Kunder	By the end of march month	Implementing 3rd module/ functionality GUI Implementation with Tkinter. Learnt basics of connectivity Report Making

Chapter 8

Conclusion

The car rental system has been developed and implemented with the primary objective of providing an efficient and user-friendly platform for customers to rent vehicles. The system includes several features such as online booking, payment processing, vehicle selection, and tracking, which enable customers to conveniently rent and manage their vehicles. The results of the project indicate that the car rental system has met the set goals and objectives, and it has been tested and verified to be functional and effective. The system has also been evaluated using several metrics, including customer satisfaction, revenue generated, and the number of rentals completed, which have shown positive outcomes.

References