Database Of Car Rental System

Abstract:

We people are making a project in which we are managing the database of online car reservation/rental services. A rental service is a service in which customers request to rent a car. It is more convenient than carrying the cost of owning or maintaining the car.

A car rental is a company that rents automobiles for short period of time for a fee whether in a few hours or a few days or week. It is often organized with numerous local branches (which allow a user to return a vehicle to a different location), and primarily 'located near airports or busy city areas and often complemented by a website/application allowing online reservations. Car rental agencies primarily serve people who knows how to drive a car but their car is temporarily out of reach or out of service, for example travelers who are out of town or owners of damaged or destroyed vehicles who are awaiting repair or insurance compensation. It provides various types of cars and also provide the service of driver if the customer needs. In short, it is a system designed specially for large, premium and small car rental business. The car rental system provides complete functionality of listing and booking car.

OBJECTIVES:

- To transform the manual process of hiring car to a computerized system.
- To validate the Rental Car system using user satisfaction test.
- Provide car catalog for users as an alternative for them to select car if they want to choose car by their own.
- Allows admin to search user information from the database based on the user's ID card number or their name.
- Allow admin to add a new car.
- Allow admin to manage booking of cars.
- Allow admin to given car on rent to the proper and legal customers.
- Allow the user to view feedback and enquires posted by users.
- All authorized users can access the system and can view information of available car.
- Allow the user to enquire about the car.

IMPLEMENTATION:

Following are the main entities that we will include in our database:-

1.) Customer

-We will gather data like his name, occupation, date of birth, gender and also we will provide him/her with a unique CustomerID which will serves as a primary Key for the above entity.

2.) Vehicle

-Vehicle will have its ID, Meter Reading (How much he has traveled), and we will have its registration number which will serve as its primary key.
-We will also provide different car options as per customer requirements and we will also have data regarding its fee and availability.

3.) Booking Details

-The primary key for this entity would be book_ID which we will provide the customer at the time of booking.
-We will collect some amount as security deposit. We will also provide the estimated rate for the specified journey.
-We ask customer about the duration of the journey so that we can provide him with estimate fare.

4.) Billing

-We will generate the bill from the book_id of the journey which will consist of billing date and also the billing status.
-The entity will have its ID which will serve as its primary key. We will also calculate the tax amount on the bill.

So, the above entities will serve as the main entities and we will add other entities as per the requirements of the database such as driver details,driver allowances, Vehicle types,city ,etc.

SAMPLE QUERIES:

1) List the most booked car by customer
2) List customers who have given advance amount >=10,000 (INR)
3) List customers who have booked Swift Dzire and billing amount >=5000 (INR)
4) List customers who have booked trip on given date
5) Give customer who have taken maximum rides

6) Retrieve all customers who have taken car from ahmedabad
7) Give the name of vehicle whose cost is least
8) List all available vehicle for given date