AUTOMOBILE DEALERSHIP

TEAM DETAILS

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OBJECTIVE

The objective of the project is to design and implement a database to maintain a record of buying and selling of new vehicles as well as used vehicles bought by the dealership. The dealership offers vast varieties of vehicles produce by different manufacturer (company) in order to provide a time effective analysis of various specs of different vehicles.

We should be able to produce sales reports, or information about the dealership's sales performance, from this database. Compare vehicles based on their models, features, and cost. Information about the cars that require maintenance and repairs. We should be able to determine the completed deals, the salesman who completed them, the vehicles that require repairs, and other information from the database.

DESCRIPTION OF THE DATABASE

The automobile dealership industry is highly competitive, and in order to succeed, dealerships need to be able to manage their inventory, customers, sales, and mechanics efficiently. To do this, many dealerships rely on databases to track and organize their data.

For this project, we will be creating a database for an automobile dealership that will allow them to manage their inventory, customers, and sales. The database will include tables for each entity, with fields that capture relevant information about each entity. We will also create relationships between the tables to ensure that data is properly linked and can be accessed and analyzed easily.

One key goal of this project will be to create a user-friendly interface that allows dealership staff to input, edit, and view data quickly and easily. This will likely involve creating forms that streamline data entry and reports that summarize key metrics, such as sales by model or inventory turnover rate.

In addition to the inventory, customer, mechanic, and sales data, the dealership may also want to include data on vehicle maintenance and repair history in the database. This would allow them to track when each vehicle was serviced, what repairs were done, and how much they cost. By having this information readily available, the dealership can provide better customer service, make more informed decisions about which vehicles to stock, and potentially save money by identifying and addressing recurring issues.

Overall, by including maintenance and repair data in the database, we can help the dealership make more informed decisions and provide better service to their customers.

Finally, we will aim to create a database that is scalable and flexible, allowing the dealership to add new entities or fields as needed. This will require careful planning and documentation to ensure that the database can be modified without compromising the integrity of the existing data.

BRIEF DESCRIPTION ON SCHEMA

The database consists of an inventory which keep a record of lots allotted to newly manufactured vehicles and also to the used vehicles purchased from an individual and keeps record of vehicles' selling prize. It also tracks number of unsold vehicles in the dealership.

The vehicles section of the database will include all the detail regarding the vehicle like name, vehicle id, model, prize, body type (hatchback, sedan etc.), color, company name, mileage, km used, car status (new/used), year of production and condition score which states the condition of vehicles in dealership.

The customer segment manages with the details of the customer like name, vehicle id of the vehicle purchased by customer, the warranty offered by the company on the product, purchase date, mobile number and address of the customer.

The scope of salesman data will include sale id, name, customer id who had bought vehicles under the guidance of the salesman, vehicle id of the sold vehicles, commission generated on the particular transaction, phone number and address of salesman.

The inventory will manage the mechanic id for repairing specific part of the car. Therefore, the mechanic slot will contain name, field of specialization, charges regarding the repair of the specific part of the vehicle (such as engine, body damage, body color, etc.). The mechanics database will consist of supplier data list in order to make it convenient for them to bring new part require for the repair.

Supplier data list consist of name of the supplier and the specific part which they supply(engine, gear box, battery, coolant, airbags etc.).

FUTURE SCOPE

We are looking forward to add databases like incentives (offer, coupon, discount) and insurance(insurance no, validation period, last date,) and the instructor(instructor id, custid, insurance no) in order to improve the service given to the customer by the dealership. The main motive of this project is to make a database that include all the data require to run a dealership firm.

TENTATIVE QUERIES FOR DATABASE

1) List profit on selling new/used vehicles to customers whether with or without any discount or offer given.
2) List salesperson selling highest number of vehicles of a particular manufacturer in a given time period.
3) List of second hand cars which are work upon by the mechanics and their commutative cost result in loss when bought by the customer.
4) List the supplier which provides all part of a vehicle whose year of production is in 2003 or before.
5) Vehicle comparison between different vehicle models, including the make and model, the specifications and the price.
6) List the top 5 best-selling vehicles of all time.
7) List the vehicles that have not been sold yet.
8) List the have been in stock for more than 90 days.
9) List the vehicles having condition score less than 5.
10) List customers that have bought more than 3 cars in the last 15 years from the dealership.