Automobile Dealership Database Management System
Using SQLite3

Entities:

Customer: Entity for the customer, who brings in the vehicle or comes to the dealership for services.

Vehicle: Vehicle entity which has vehicle's information, such as make & model and other details.

Mechanic: Mechanic who works on the vehicle and performs repairs if needed.

Salesman: Salesperson who deals with the customer and makes sales.

Work Order: Repair details for the vehicle that need to be serviced.

Inventory: Inventory containing all the vehicles and their lot details.

Relationships:

Owns: Customer may or may not own the Vehicle. If the Customer does not own the Vehicle, then it belongs to the Inventory.

Contains: Inventory may or may not contain the Vehicle. If the inventory does not contain the Vehicle, then it belongs to the Customer.

Works On: The Mechanic works on the Vehicle, if needed.

Fulfills: The Mechanic fulfills the Work Order at a Repair Cost.

Has: A Vehicle may or may not have a Work Order.

Sells: Salesman sells the vehicle in the Inventory, at a Sale Price.

Serves: Salesman serves the Customer to sell Vehicles.

Attributes:

CustomerID: Customer's identification number which is a key attribute.

Name: Customer's name.

Phone Number: Customer's phone number.

SalesmanID: Salesman's identification number, which is a key attribute.

SalesmanName: Salesman's name.

RepairStatus: Vehicle's repair status (if it needs repairs or not), only applicable if the Customer owns the car.

PriceTag: Vehicle's price, only applicable if the vehicle is in the dealership's inventory.

NumVehicles: Number of vehicles in the inventory.

LotNumber: Unique lot number assigned to the Vehicle in the inventory, a key attribute.

VIN: Vehicle's unique identification number.

Manufacturer: Vehicle's manufacturer.

ModelYear: Vehicle's model year.

Model: Vehicle's name.

TrimLevel: Vehicle's trim level.

BodyType: Vehicle's body type, for example, SUV.

Color: Vehicle's color.

Mileage: How much a vehicle has been driven.

MechanicID: Mechanic's unique ID number, a key attribute.

MechanicName: Mechanic's Name.

RepairCost: How much did the repairs fulfilled by the mechanic cost.

WorkDetails: Details on what work is there to be performed.

PriceQuote: Quoted price on the Work Order for the repair.

WorkOrderNumber: A unique order number assigned to each work order, a key attribute.

SalePrice: The price at which the vehicle was sold to the Customer by the Salesman.

SaleStatus: If the salesman made a sale or not, i.e., if a vehicle was sold or not.