Automobile Dealership Database Management System
Database Schema

The database schema sets the stage for data to be put in the database. The Database Schema is based on the Entity-Relationship diagram (ERD). All entities are created into tables, these are:

- Customer
- Inventory
- Work Order
- Mechanic
- Vehicle
- Salesman

Similarly, following the ERD, the unique primary keys (IDs) are assigned to each table, following the naming convention as needed. *AUTOINCREMENT* is applied where needed, for ease of use.

The primary keys include:

- Vehicle: VIN Number
- Customer: Customer ID
- Mechanic: Mechanic ID
- Salesman: Salesman ID
- Work Order: WorkOrderID
- Inventory: InventoryLotNumber

Required fields which must have a value are initialized with *NOT NULL*, while fields which are optional are defaulted to *NULL* with *DEFAULT NULL*. UNIQUE fields such as IDs or Phone Numbers are declared with necessary constraints, as required. Following the ERD, the fields are labelled appropriately, as specified. I used the *CREATE TABLE IF NOT EXISTS* command to create the table as it is more conventional.

The Relationships between the Entities are structured using Foreign Keys. These are also declared following the naming convention as required. These are also done according to the ERD specifications. Vehicle table has the most amount of foreign keys as it is on the receiving end of a many-to-one relationship with a number of other Entities.

The Vehicle table has MechanicID, WorkOrderID, InventoryLotNumber, SalesmanID, and CustomerID as Foreign Keys. This is because the corresponding entities relate to the Vehicle table, just like in the ERD.