CAR DEALERSHIP APPLICATION

DATABASE DESIGN AND ENTITY RELATIONSHIP DIAGRAM

DATABASE DESIGN

Step - 1

Create Database

```
create database cardealership;
```

Step - 2

Use Current Database

```
use cardealership;
```

Step - 3

Create Car Table:

```
CREATE TABLE Car ( id INT PRIMARY KEY
AUTO_INCREMENT, make VARCHAR(255), model
VARCHAR(255), year INT, price DECIMAL(10,
2) );
```

ENTITY RELATIONSHIP DIAGRAM

Step - 4

View Structure of Car table

```
desc Car;
```

```
+-------+--------------+------+-----+---------+----------------+
| Field | Type         | Null | Key | Default | Extra          |
+-------+--------------+------+-----+---------+----------------+
| id    | int          | NO   | PRI | NULL    | auto_increment |
| make  | varchar(255) | YES  |     | NULL    |                |
| model | varchar(255) | YES  |     | NULL    |                |
| year  | int          | YES  |     | NULL    |                |
| price | decimal(10,2)| YES  |     | NULL    |                |
+-------+--------------+------+-----+---------+----------------+
5 rows in set (0.03 sec)
```

Step - 5

Create Customer Table:

```
CREATE TABLE Customer ( id INT PRIMARY KEY AUTO_INCREMENT, name VARCHAR(255), email VARCHAR(255), phone VARCHAR(20) );
```

Step - 6

View Structure of Customer table

```
desc Customer;
```

ENTITY RELATIONSHIP DIAGRAM

```
+-------+-------------+------+-----+---------+----------------+
| Field | Type        | Null | Key | Default | Extra          |
+-------+-------------+------+-----+---------+----------------+
| id    | int         | NO   | PRI | NULL    | auto_increment |
| name  | varchar(255)| YES  |     | NULL    |                |
| email | varchar(255)| YES  |     | NULL    |                |
| phone | varchar(20) | YES  |     | NULL    |                |
+-------+-------------+------+-----+---------+----------------+
4 rows in set (0.01 sec)
```

Step - 7

Create Salesperson Table:

```
CREATE TABLE Salesperson ( id INT PRIMARY KEY AUTO_INCREMENT, name VARCHAR(255), email VARCHAR(255), phone VARCHAR(20) );
```

Step - 8

View Structure of Salesperson table

```
desc Salesperson;
```

```
+-------+-------------+------+-----+---------+----------------+
| Field | Type        | Null | Key | Default | Extra          |
+-------+-------------+------+-----+---------+----------------+
| id    | int         | NO   | PRI | NULL    | auto_increment |
| name  | varchar(255)| YES  |     | NULL    |                |
| email | varchar(255)| YES  |     | NULL    |                |
| phone | varchar(20) | YES  |     | NULL    |                |
+-------+-------------+------+-----+---------+----------------+
4 rows in set (0.01 sec)
```

Step - 9

ENTITY RELATIONSHIP DIAGRAM

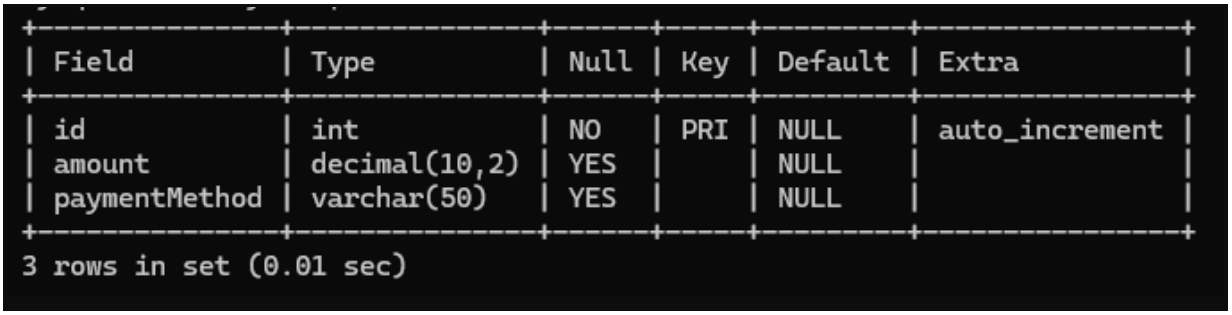
Create Payment Table:

```
CREATE TABLE Payment ( id INT PRIMARY KEY
AUTO_INCREMENT, amount DECIMAL(10, 2),
paymentMethod VARCHAR(50) );
```

Step - 10

View Structure of Payment table

```
desc Payment;
```



Field	Type	Null	Key	Default	Extra
id	int	NO	PRI	NULL	auto_increment
amount	decimal(10,2)	YES		NULL	
paymentMethod	varchar(50)	YES		NULL	

3 rows in set (0.01 sec)

Step - 9

Create Sale Table:

```
CREATE TABLE Sale ( id INT PRIMARY KEY
AUTO_INCREMENT, saleDate DATE, carId INT,
customerId INT, salespersonId INT,
paymentId INT, FOREIGN KEY (carId)
REFERENCES Car(id), FOREIGN KEY
```

```
(customerId) REFERENCES Customer(id),
FOREIGN KEY (salespersonId) REFERENCES
Salesperson(id), FOREIGN KEY (paymentId)
REFERENCES Payment(id) );
```

Step - 10

View Structure of Sale table

```
desc Sale;
```

```
+---------------+------+------+-----+---------+----------------+
| Field         | Type | Null | Key | Default | Extra          |
+---------------+------+------+-----+---------+----------------+
| id            | int  | NO   | PRI | NULL    | auto_increment |
| saleDate      | date | YES  |     | NULL    |                |
| carId         | int  | YES  | MUL | NULL    |                |
| customerId    | int  | YES  | MUL | NULL    |                |
| salespersonId | int  | YES  | MUL | NULL    |                |
| paymentId     | int  | YES  | MUL | NULL    |                |
+---------------+------+------+-----+---------+----------------+
6 rows in set (0.01 sec)
```

ENTITY RELATIONSHIP DIAGRAM