

# **ANALYZING VEHICLE SALES AMONG BRANDS TO SQL QUERY**

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# INTRODUCTION

- **ANALYZING VEHICLE SALES AMONG BRANDS IS ESSENTIAL FOR UNDERSTANDING MARKET TRENDS, CUSTOMER PREFERENCES, AND OVERALL BRAND PERFORMANCE. BY USING SQL QUERIES, WE CAN EFFICIENTLY EXTRACT AND ANALYZE DATA FROM A DATABASE TO GAIN INSIGHTS INTO VEHICLE SALES PATTERNS. THIS PROCESS INVOLVES WRITING QUERIES TO RETRIEVE DATA SUCH AS TOTAL SALES, SALES DISTRIBUTION ACROSS DIFFERENT BRANDS, SALES GROWTH OVER TIME, AND MORE. THE RESULTS OF THESE ANALYSES CAN HELP BUSINESSES MAKE INFORMED DECISIONS, OPTIMIZE THEIR STRATEGIES, AND IMPROVE THEIR COMPETITIVE EDGE IN THE MARKET.**

# TABLES

➤ **SHOW TABLES;**

```
+-----+
| Tables_in_lohit |
+-----+
| customer        |
| manufacture     |
| sales           |
| vehicle         |
+-----+
4 rows in set (0.001 sec)
```

# TABLE VEHICLE

```
MariaDB [lohit]> select * from vehicle;
```

vehicle_id	brand	model	year	price	manufacture_id
1	toyata	Glanza	2020	550000.00	A
2	suzuki	swift	2007	495000.00	A
3	Morris Garage	Hector	2018	715000.00	A
4	BMW	630li	2024	1100000.00	A
5	TVS	jupiter	2010	440000.00	B
6	TVS	XL heavyduty	1950	55000.00	C
7	honda	shine	1980	77000.00	B
8	yamaha	R15	2006	143000.00	B
9	Royal Enfield	GT650	2015	517000.00	B
10	Tvs	Ntorq	2016	132000.00	C
11	hero	Splender	1990	88000.00	B
12	Audi	GLS300	1999	770000.00	A
13	Honda	Activa	1998	220000.00	C

```
13 rows in set (0.074 sec)
```

## TABLE MANUFACTURE

```
MariaDB [lohit]> select * from manufacture;
```

manufacture_id	type	country	contact_mail
A	CAR	GERMAN	car@gmail.com
B	BIKE	INDIA	bike@gmail.com
C	SCOOTY	CHINA	scooty@gmail.com

```
3 rows in set (0.073 sec)
```



# TABLE CUSTOMER

```
MariaDB [lohit]> select * from customer;
```

cus_id	cus_name	email	phone_no	address	sales_id
1001	kishore	kingkishore@gmail.com	8428500923	chennai-avadi	101
1002	makki	maakipower@gmail.com	8428600923	chennai-padi	102
1003	lohit	lohit1503@gmail.com	6380837985	chennai-mogappair	103
1004	kavutham	kavutham@gmail.com	6380865789	madurai-thirumangalam	104
1005	naveen	naveen@gmail.com	6380123459	Dindigul-RM colony	105
1006	Infant Jones	infantjones007@gmail.com	9080810409	Dindigul-EB colony	106
1007	jayaseelan	jayaseelan007@gmail.com	9080706050	coimbatore-coim colony	107

```
7 rows in set (0.072 sec)
```

## TABLE SALES

```
MariaDB [lohit]> select * from sales;
```

sales_id	vehicle_id	manufacture_id	Total_amt	gst
101	6	C	50000	25
102	12	A	700000	35
103	7	B	70000	28
104	9	B	470000	30
105	4	A	1000000	35
106	8	B	130000	28
107	10	C	120000	25

```
7 rows in set (0.076 sec)
```

# 1. LIST THE ALL VEHICLES ALONG WITH THE MANUFACTURE DETAILS:

```
MariaDB [lohit]> select v.vehicle_id,v.model,v.model,m.manufacture_id,m.type from vehicle as v  
-> join manufacture as m on v.manufacture_id = m.manufacture_id;
```

vehicle_id	model	model	manufacture_id	type
1	Glanza	Glanza	A	CAR
2	swift	swift	A	CAR
3	Hector	Hector	A	CAR
4	630li	630li	A	CAR
5	jupiter	jupiter	B	BIKE
6	XL heavyduty	XL heavyduty	C	SCOOTY
7	shine	shine	B	BIKE
8	R15	R15	B	BIKE
9	GT650	GT650	B	BIKE
10	Ntorq	Ntorq	C	SCOOTY
11	Splender	Splender	B	BIKE
12	GLS300	GLS300	A	CAR
13	Activa	Activa	C	SCOOTY

```
13 rows in set (0.001 sec)
```



## 2.RETRIEVE THE VEHICLES MANUFACTURED BY TVS:

```
MariaDB [lohit]> select * from vehicle where brand="TVS";
```

vehicle_id	brand	model	year	price	manufacture_id
5	TVS	jupiter	2010	400000	B
6	TVS	XL heavyduty	1950	50000	C
10	Tvs	Ntorq	2016	120000	C

3 rows in set (0.000 sec)

### 3. CUSTOMERS WITH THE PHONE NUMBER STARTING WITH '908':

```
MariaDB [lohit]> select * from customer where phone_no like '908%';
```

cus_id	cus_name	email	phone_no	address	sales_id
1006	Infant Jones	infantjones007@gmail.com	9080810409	Dindigul-EB colony	106
1007	jayaseelan	jayaseelan007@gmail.com	9080706050	coimbatore-coim colony	107

```
2 rows in set (0.000 sec)
```

## 4.LIST OF ALL CUSTOMERS SORT BY THEIR NAMES:

```
MariaDB [lohit]> select * from customer order by cus_name;
```

cus_id	cus_name	email	phone_no	address	sales_id
1006	Infant Jones	infantjones007@gmail.com	9080810409	Dindigul-EB colony	106
1007	jayaseelan	jayaseelan007@gmail.com	9080706050	coimbatore-coim colony	107
1004	kavutham	kavutham@gmail.com	6380865789	madurai-thirumangalam	104
1001	kishore	kingkishore@gmail.com	8428500923	chennai-avadi	101
1003	lohit	lohit1503@gmail.com	6380837985	chennai-mogappair	103
1002	makki	maakipower@gmail.com	8428600923	chennai-padi	102
1005	naveen	naveen@gmail.com	6380123459	Dindigul-RM colony	105

```
7 rows in set (0.001 sec)
```

## 5.AVERAGE PRICE OF VEHICLE BY THE YEAR:

```
MariaDB [lohit]> select year,avg(price) as avg_price from vehicle group by year;
```

year	avg_price
1950	50000.0000
1980	70000.0000
1990	80000.0000
1998	200000.0000
1999	700000.0000
2006	130000.0000
2007	450000.0000
2010	400000.0000
2015	470000.0000
2016	120000.0000
2018	650000.0000
2020	500000.0000
2024	1000000.0000

13 rows in set (0.001 sec)



## 6.NUMBER OF VEHICLES MANUFACTURED BY EACH MANUFACTURE:

```
MariaDB [lohit]> select manufacture_id,count(*) as vehicle_count from vehicle  
-> group by manufacture_id;
```

manufacture_id	vehicle_count
A	5
B	5
C	3

3 rows in set (0.001 sec)



## 7.ALL SALES WITH THE GST RATE ARE HIGHER THAN 30:

```
MariaDB [lohit]> select * from sales where gst >30;
```

sales_id	vehicle_id	manufacture_id	Total_amt	gst
102	12	A	700000	35
105	4	A	1000000	35

```
2 rows in set (0.000 sec)
```

## 8.COUNT THE VEHICLES BY BRAND:

```
MariaDB [lohit]> select brand,count(*) as count from vehicle group by brand;
```

brand	count
Audi	1
BMW	1
hero	1
honda	2
Morris Garage	1
Royal Enfield	1
suzuki	1
toyata	1
TVS	3
yamaha	1

```
10 rows in set (0.001 sec)
```

## 9.LIST ALL VEHICLES MANUFACTURED BEFORE THE YEAR 2010:

```
MariaDB [lohit]> select * from vehicle where year>2010;
```

vehicle_id	brand	model	year	price	manufacture_id
1	toyata	Glanza	2020	500000	A
3	Morris Garage	Hector	2018	650000	A
4	BMW	630li	2024	1000000	A
9	Royal Enfield	GT650	2015	470000	B
10	Tvs	Ntorq	2016	120000	C

```
5 rows in set (0.001 sec)
```

## 10.VEHICLE AND THE PRICE SORT BY THE YEAR:

```
MariaDB [lohit]> select vehicle_id,brand,model,year,price from vehicle order by year;
```

vehicle_id	brand	model	year	price
6	TVS	XL heavyduty	1950	50000
7	honda	shine	1980	70000
11	hero	Splender	1990	80000
13	Honda	Activa	1998	200000
12	Audi	GLS300	1999	700000
8	yamaha	R15	2006	130000
2	suzuki	swift	2007	450000
5	TVS	jupiter	2010	400000
9	Royal Enfield	GT650	2015	470000
10	Tvs	Ntorq	2016	120000
3	Morris Garage	Hector	2018	650000
1	toyata	Glanza	2020	500000
4	BMW	630li	2024	1000000

```
13 rows in set (0.001 sec)
```



## 11.THE COSTLIEST PRICED VEHICLE EACH BY THE MANUFACTURER:

```
MariaDB [lohit]> select manufacture_id,max(price) as cosliest_vehicle from vehicle  
-> group by manufacture_id;
```

manufacture_id	cosliest_vehicle
A	1000000
B	470000
C	200000

```
3 rows in set (0.001 sec)
```



## 12.AVERAGE PRICE OF VEHICLE BY THE YEAR:

```
MariaDB [lohit]> select avg(price) as avg_price from vehicle;
```

```
+-----+  
| avg_price |  
+-----+  
| 370769.2308 |  
+-----+
```

```
1 row in set (0.001 sec)
```

## 13.FINDING THE TOTAL VEHICLE MANUFACTURED IN TYPE="A".

```
MariaDB [lohit]> select count(manufacture_id) from vehicle where manufacture_id="A";
```

```
+-----+  
| count(manufacture_id) |  
+-----+  
|                    5 |  
+-----+  
1 row in set (0.001 sec)
```

## 14.FIND CUSTOMERS AND VEHICLES THEY BOUGHT:

```
MariaDB [lohit]> select c.cus_id,c.cus_name,c.phone_no,c.sales_id,s.vehicle_id,s.manufacture_id,m.type from  
customer as c
```

```
-> join sales as s on c.sales_id = s.sales_id
```

```
-> join manufacture as m on s.manufacture_id = m.manufacture_id;
```

cus_id	cus_name	phone_no	sales_id	vehicle_id	manufacture_id	type
1002	makki	8428600923	102	12	A	CAR
1005	naveen	6380123459	105	4	A	CAR
1003	lohit	6380837985	103	7	B	BIKE
1004	kavutham	6380865789	104	9	B	BIKE
1006	Infant Jones	9080810409	106	8	B	BIKE
1001	kishore	8428500923	101	6	C	SCOOTY
1007	jayaseelan	9080706050	107	10	C	SCOOTY

```
7 rows in set (0.003 sec)
```

## 15.TOTAL SALES AMOUNT FOR EACH TYPE OF MANUFACTURED VEHICLES:

```
MariaDB [lohit]> select m.type,sum(s.Total_amt) as TOTAL from manufacture as m  
-> join sales as s on m.manufacture_id = s.manufacture_id group by m.type;
```

type	TOTAL
BIKE	670000
CAR	1700000
SCOOTY	170000

3 rows in set (0.001 sec)



## 16.FIND THE MOST EXPENSIVE VEHICLES SOLD :

```
MariaDB [lohit]> select s.vehicle_id,s.Total_amt,v.brand,v.model from sales as s  
-> join vehicle as v on s.vehicle_id = v.vehicle_id  
-> order by s.Total_amt desc limit 1;
```

```
+-----+-----+-----+-----+  
| vehicle_id | Total_amt | brand | model |  
+-----+-----+-----+-----+  
|          4 | 1000000 | BMW   | 630li |  
+-----+-----+-----+-----+  
1 row in set (0.001 sec)
```



## 17.VEHICLES AND BRAND SORT BY YEAR :

```
MariaDB [lohit]> select vehicle_id,brand,model,year,price from vehicle order by year;
```

vehicle_id	brand	model	year	price
6	TVS	XL heavyduty	1950	50000
7	honda	shine	1980	70000
11	hero	Splender	1990	80000
13	Honda	Activa	1998	200000
12	Audi	GLS300	1999	700000
8	yamaha	R15	2006	130000
2	suzuki	swift	2007	450000
5	TVS	jupiter	2010	400000
9	Royal Enfield	GT650	2015	470000
10	Tvs	Ntorq	2016	120000
3	Morris Garage	Hector	2018	650000
1	toyata	Glanza	2020	500000
4	BMW	630li	2024	1000000

```
13 rows in set (0.001 sec)
```

## 18.FIND THE VEHICLE SOLD FOR LOWEST PRICE :

```
MariaDB [lohit]> select * from vehicle order by price asc limit 1;
```

vehicle_id	brand	model	year	price	manufacture_id
6	TVS	XL heavyduty	1950	50000	C

```
1 row in set (0.000 sec)
```

## 19.FIND THE TOTAL PRICE FOR THE CUSTOMER WITH ADDING THE GST WITH TOTAL PRICE:

```
MariaDB [lohit]> select c.cus_id,c.cus_name,s.sales_id,(s.Total_amt + s.Total_amt * s.gst/100) as Total_cost
-> from customer as c
-> join sales as s on c.sales_id = s.sales_id;
```

cus_id	cus_name	sales_id	Total_cost
1001	kishore	101	62500.0000
1002	makki	102	945000.0000
1003	lohit	103	89600.0000
1004	kavutham	104	611000.0000
1005	naveen	105	1350000.0000
1006	Infant Jones	106	166400.0000
1007	jayaseelan	107	150000.0000

7 rows in set (0.001 sec)

## 20.UPDATE THE PRICE OF ALL VEHICLES BY INCREASING IT BY 10%:

```
MariaDB [lohit]> update vehicle set price = price* 1.10;  
Query OK, 13 rows affected (0.007 sec)  
Rows matched: 13  Changed: 13  Warnings: 0
```

```
MariaDB [lohit]> select * from vehicle;
```

vehicle_id	brand	model	year	price	manufacture_id
1	toyata	Glanza	2020	550000	A
2	suzuki	swift	2007	495000	A
3	Morris Garage	Hector	2018	715000	A
4	BMW	630li	2024	1100000	A
5	TVS	jupiter	2010	440000	B
6	TVS	XL heavyduty	1950	55000	C
7	honda	shine	1980	77000	B
8	yamaha	R15	2006	143000	B
9	Royal Enfield	GT650	2015	517000	B
10	Tvs	Ntorq	2016	132000	C
11	hero	Splender	1990	88000	B
12	Audi	GLS300	1999	770000	A
13	Honda	Activa	1998	220000	C

13 rows in set (0.000 sec)



## 21.ADD A COLUMN COLOR TO THE VEHICLE TABLE:

```
MariaDB [lohit]> alter table vehicle add colour varchar(30);
Query OK, 0 rows affected (0.011 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
MariaDB [lohit]> select * from vehicle;
```

vehicle_id	brand	model	year	price	manufacture_id	colour
1	toyata	Glanza	2020	550000	A	NULL
2	suzuki	swift	2007	495000	A	NULL
3	Morris Garage	Hector	2018	715000	A	NULL
4	BMW	630li	2024	1100000	A	NULL
5	TVS	jupiter	2010	440000	B	NULL
6	TVS	XL heavyduty	1950	55000	C	NULL
7	honda	shine	1980	77000	B	NULL
8	yamaha	R15	2006	143000	B	NULL
9	Royal Enfield	GT650	2015	517000	B	NULL
10	Tvs	Ntorq	2016	132000	C	NULL
11	hero	Splender	1990	88000	B	NULL
12	Audi	GLS300	1999	770000	A	NULL
13	Honda	Activa	1998	220000	C	NULL

```
13 rows in set (0.001 sec)
```



## 22.MODIFY THE PRICE COLUMN IN THE VEHICLE TABLE TO DECIMAL(10, 2):

```
MariaDB [lohit]> alter table vehicle modify price float(10,2);
Query OK, 13 rows affected (0.077 sec)
Records: 13  Duplicates: 0  Warnings: 0
```

```
MariaDB [lohit]> select * from vehicle;
```

vehicle_id	brand	model	year	price	manufacture_id	colour
1	toyata	Glanza	2020	550000.00	A	NULL
2	suzuki	swift	2007	495000.00	A	NULL
3	Morris Garage	Hector	2018	715000.00	A	NULL
4	BMW	630li	2024	1100000.00	A	NULL
5	TVS	jupiter	2010	440000.00	B	NULL
6	TVS	XL heavyduty	1950	55000.00	C	NULL
7	honda	shine	1980	77000.00	B	NULL
8	yamaha	R15	2006	143000.00	B	NULL
9	Royal Enfield	GT650	2015	517000.00	B	NULL
10	Tvs	Ntorq	2016	132000.00	C	NULL
11	hero	Splender	1990	88000.00	B	NULL
12	Audi	GLS300	1999	770000.00	A	NULL
13	Honda	Activa	1998	220000.00	C	NULL

13 rows in set (0.001 sec)

## 23.SQL QUERY TO DROP COLUMN 'COLOUR' :

```
MariaDB [lohit]> select * from vehicle;
```

vehicle_id	brand	model	year	price	manufacture_id	colour
1	toyata	Glanza	2020	550000.00	A	NULL
2	suzuki	swift	2007	495000.00	A	NULL
3	Morris Garage	Hector	2018	715000.00	A	NULL
4	BMW	630li	2024	1100000.00	A	NULL
5	TVS	jupiter	2010	440000.00	B	NULL
6	TVS	XL heavyduty	1950	55000.00	C	NULL
7	honda	shine	1980	77000.00	B	NULL
8	yamaha	R15	2006	143000.00	B	NULL
9	Royal Enfield	GT650	2015	517000.00	B	NULL
10	Tvs	Ntorq	2016	132000.00	C	NULL
11	hero	Splender	1990	88000.00	B	NULL
12	Audi	GLS300	1999	770000.00	A	NULL
13	Honda	Activa	1998	220000.00	C	NULL

```
13 rows in set (0.001 sec)
```

```
MariaDB [lohit]> alter table vehicle drop column colour;
```

Query OK, 0 rows affected (0.012 sec)  
Records: 0 Duplicates: 0 Warnings: 0

```
MariaDB [lohit]> select * from vehicle;
```

vehicle_id	brand	model	year	price	manufacture_id
1	toyata	Glanza	2020	550000.00	A
2	suzuki	swift	2007	495000.00	A
3	Morris Garage	Hector	2018	715000.00	A
4	BMW	630li	2024	1100000.00	A
5	TVS	jupiter	2010	440000.00	B
6	TVS	XL heavyduty	1950	55000.00	C
7	honda	shine	1980	77000.00	B
8	yamaha	R15	2006	143000.00	B
9	Royal Enfield	GT650	2015	517000.00	B
10	Tvs	Ntorq	2016	132000.00	C
11	hero	Splender	1990	88000.00	B
12	Audi	GLS300	1999	770000.00	A
13	Honda	Activa	1998	220000.00	C

```
13 rows in set (0.001 sec)
```

**Thank  
You!**

**Present by: pavithra & lohith**