

# Steve's Car Showroom



MySQL Case Study – Analysis

Power BI Dashboard

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**Problem Statement:** Analyzing the Steve’s top-end car showroom and providing him crucial insights and answers he requires

sales

sale_id	car_id	salesman_id	purchase_date
1	1	1	2021-01-01
2	3	3	2021-02-03
3	2	2	2021-02-10
4	5	4	2021-03-01
5	8	1	2021-04-02
6	2	1	2021-05-05
7	4	2	2021-06-07
8	5	3	2021-07-09
9	2	4	2022-01-01
10	1	3	2022-02-03
11	8	2	2022-02-1-
12	7	2	2022-03-01
13	5	3	2022-04-02
14	3	1	2022-05-05
15	5	4	2022-06-07
16	1	2	2022-07-09
17	2	3	2023-01-01
18	6	3	2023-02-03
19	7	1	2023-02-10
20	4	4	2023-03-01

cars

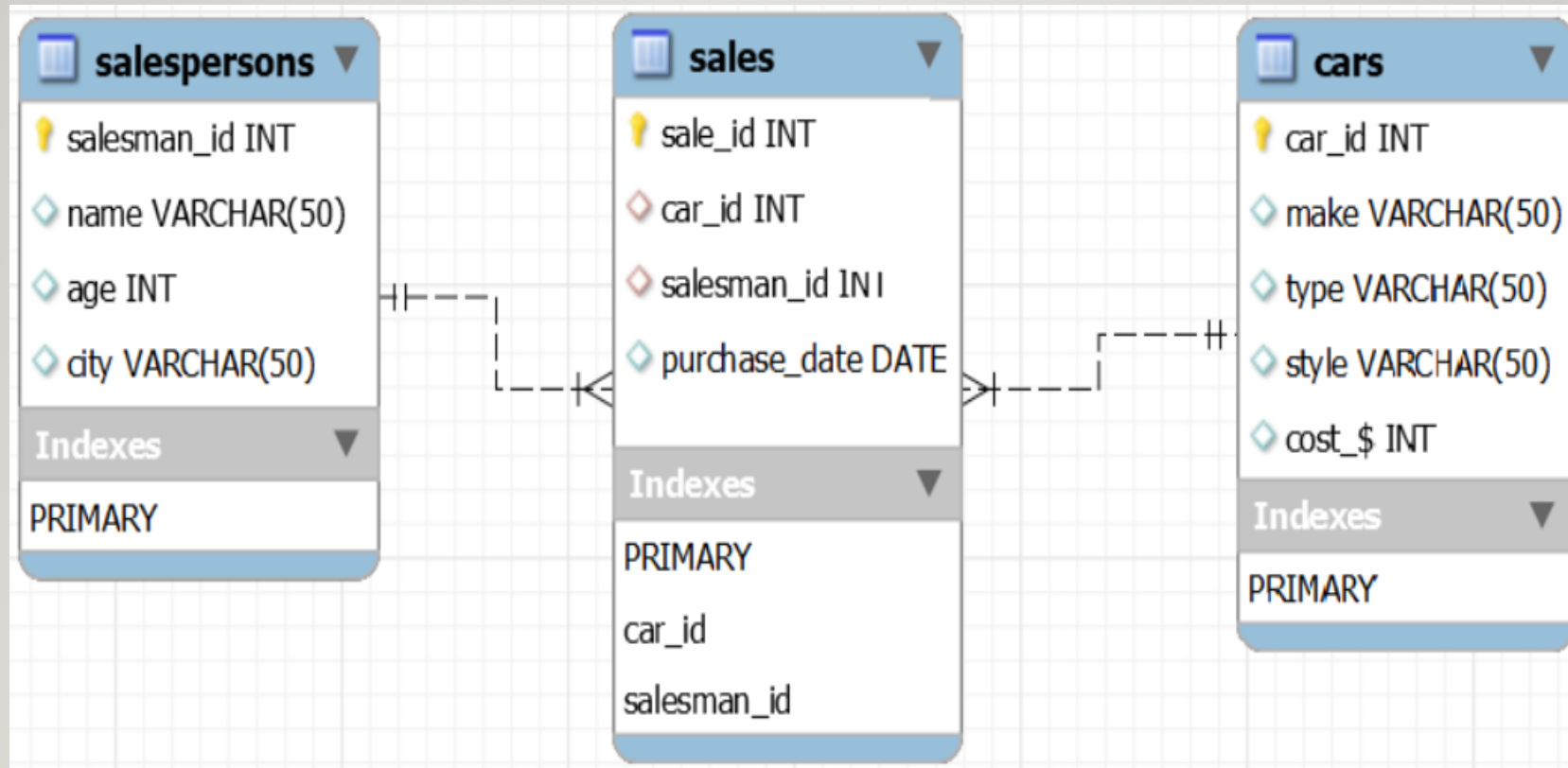
car_id	make	type	style	cost_
1	Honda	Civic	Sedan	30000
2	Toyota	Corolla	Hatchback	25000
3	Ford	Explorer	SUV	40000
4	Chevrolet	Camaro	Coupe	36000
5	BMW	X5	SUV	55000
6	Audi	A4	Sedan	48000
7	Mercedes	C-Class	Coupe	60000
8	Nissan	Altima	Sedan	26000

salespersons

salesman_id	name	age	city
1	John Smith	28	New York
2	Emily Wong	35	San Fran
3	Tom Lee	42	Seattle
4	Lucy Chen	31	LA



# Entity Relationship Diagram (ERD)



We can observe **salespersons** & **sales** has one-to-many relationship and also **cars** & **sales** has one-to-many relationship.

# INSIGHTS & OBSERVATIONS

As per Steve's request we queried the details of all cars purchased in the year 2022 and we can observe 8 records which was purchased in the year 2022.

```
select c.*, s.purchase_date from sales s
inner join cars c
    on s.car_id = c.car_id
where year(s.purchase_date) = 2022;
```

	car_id	make	type	style	cost_	purchase_date
▶	2	Toyota	Corolla	Hatchback	25000	2022-01-01
	1	Honda	Civic	Sedan	30000	2022-02-03
	8	Nissan	Altima	Sedan	26000	2022-02-10
	7	Mercedes	C-Class	Coupe	60000	2022-03-01
	5	BMW	X5	SUV	55000	2022-04-02
	3	Ford	Explorer	SUV	40000	2022-05-05
	5	BMW	X5	SUV	55000	2022-06-07
	1	Honda	Civic	Sedan	30000	2022-07-09

# INSIGHTS & OBSERVATIONS

## Cars sold by each Salesperson:

- The more of number of cars were sold by “Tom Lee” & less number of cars were sold by “Lucy Chen”.

```
select sp.name, count(s.car_id) as count_of_cars_sold from sales s
join salespersons sp
    on s.salesman_id = sp.salesman_id
group by sp.name
order by count_of_cars_sold desc;
```

name	count_of_cars_sold
Tom Lee	6
John Smith	5
Emily Wong	5
Lucy Chen	4

## Revenue Generated by each Salesperson:

- The highest revenue is generated by “Tom Lee” which is 2,53,000, revenue generated by “Emily Wong” & “John Smith” is approximately same and “Lucy Chen” has generated lowest revenue.

```
select s.salesman_id, sp.name, sum(c.cost_$) as revenue_generated
from sales s
    join salespersons sp on s.salesman_id = sp.salesman_id
    join cars c on s.car_id = c.car_id
group by s.salesman_id, sp.name;
```

name	revenue_generated
John Smith	181000
Emily Wong	177000
Tom Lee	253000
Lucy Chen	171000



# INSIGHTS & OBSERVATIONS

Details of the cars sold by each salesperson:

- Salesman 4 has sold more number of cars when compared to other salespersons

```
select
    s.salesman_id,
    sp.name,
    c.*
from cars c
join sales s
    on c.car_id = s.car_id
join salespersons sp
    on s.salesman_id = sp.salesman_id;
```

salesman_id	name	car_id	make	type	style	cost_
1	John Smith	1	Honda	Civic	Sedan	30000
1	John Smith	8	Nissan	Altima	Sedan	26000
1	John Smith	2	Toyota	Corolla	Hatchback	25000
1	John Smith	3	Ford	Explorer	SUV	40000
1	John Smith	7	Mercedes	C-Class	Coupe	60000
2	Emily Wong	2	Toyota	Corolla	Hatchback	25000
2	Emily Wong	4	Chevrolet	Camaro	Coupe	36000
2	Emily Wong	8	Nissan	Altima	Sedan	26000
2	Emily Wong	7	Mercedes	C-Class	Coupe	60000
2	Emily Wong	1	Honda	Civic	Sedan	30000
3	Tom Lee	3	Ford	Explorer	SUV	40000
3	Tom Lee	5	BMW	X5	SUV	55000
3	Tom Lee	1	Honda	Civic	Sedan	30000
3	Tom Lee	5	BMW	X5	SUV	55000
3	Tom Lee	2	Toyota	Corolla	Hatchback	25000
3	Tom Lee	6	Audi	A4	Sedan	48000
4	Lucy Chen	5	BMW	X5	SUV	55000
4	Lucy Chen	2	Toyota	Corolla	Hatchback	25000
4	Lucy Chen	5	BMW	X5	SUV	55000
4	Lucy Chen	4	Chevrolet	Camaro	Coupe	36000

# INSIGHTS & OBSERVATIONS

Top 5 cars which generated more revenue :

- BMW X5 generated highest revenue followed by Mercedes C-Class.

```
select
    c.make, c.type, sum(c.cost_$) as total_revenue
from cars c
    join sales s on s.car_id = c.car_id
    join salespersons sp on s.salesman_id = sp.salesman_id
group by c.make, c.type
order by total_revenue desc;
```

make	type	total_revenue
BMW	X5	220000
Mercedes	C-Class	120000
Toyota	Corolla	100000
Honda	Civic	90000
Ford	Explorer	80000

Revenue by cars style :

- SUV cars generated more revenue whereas Hatchback type generated low revenue.

```
select c.style, sum(c.cost_$) as revenue_generated
from cars c
    join sales s on c.car_id = s.car_id
group by c.style
-- order by revenue_generated desc
having style = "Hatchback";
```

style	revenue_generated
SUV	300000
Coupe	192000
Sedan	190000
Hatchback	100000

# INSIGHTS & OBSERVATIONS

Total revenue generated by the sales of SUV cars in the year 2022:

- The total revenue generated by SUV cars is 1,50,000.

```
select style, sum(cost_$) as total_revenue_by_SUV
from cars c
join sales s
    on c.car_id = s.car_id
join salespersons sp
    on sp.salesman_id = s.salesman_id
where year(purchase_date) = 2022
group by style
having style = 'SUV';
```

style	total_revenue_by_SUV
SUV	150000



# INSIGHTS & OBSERVATIONS

Name and City of the salesperson who sold the most number of cars in the year 2023:

➤ Tom Lee who is from Seattle sold more number of cars in the year 2023.

```
select
    sp.name,
    sp.city,
    count(s.car_id) as cars_sold
from salespersons sp
join sales s
    on sp.salesman_id = s.salesman_id
where year(s.purchase_date) = 2023
group by sp.name, sp.city
order by cars_sold desc
limit 1;
```

name	city	cars_sold
Tom Lee	Seattle	2

# INSIGHTS & OBSERVATIONS

Name and Age of the salesperson who generated the highest revenue in the year 2022:

➤ Emily Wong generated highest revenue in the year 2022.

```
select
    sp.name,
    sp.age,
    sum(c.cost_$) as high_revenue
from salespersons sp
join sales s
    on sp.salesman_id = s.salesman_id
join cars c
    on s.car_id = c.car_id
where year(purchase_date) = 2022
group by sp.name, sp.age
order by high_revenue desc
limit 1;
```

name	age	high_revenue
Emily Wong	35	116000



# Steve's Car Showroom Dashboard

2021

2022

2023

city

☐ LA

☐ New York

☐ San Fran

☐ Seattle

8

Number of Cars

320K

Total Sales

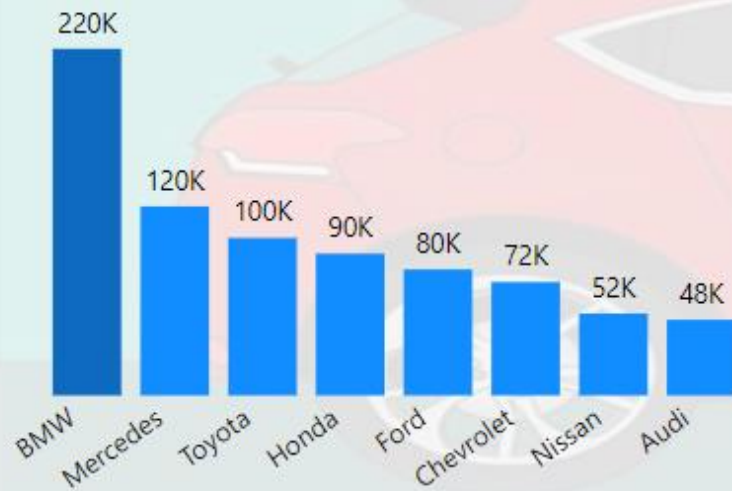
4

Number of Salespersons

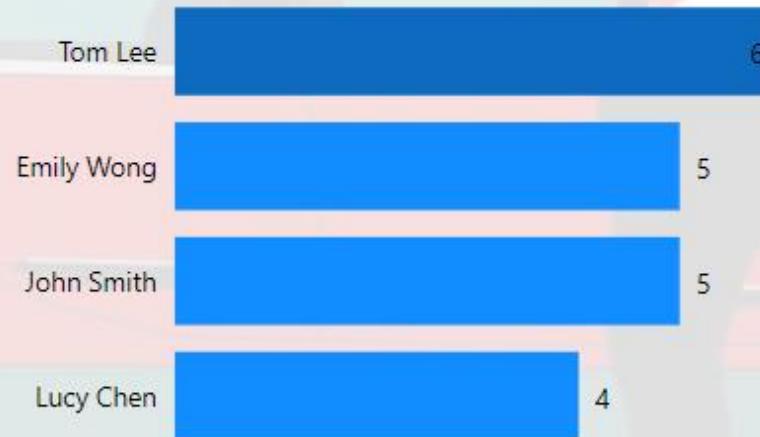
20

Total No.of Sales

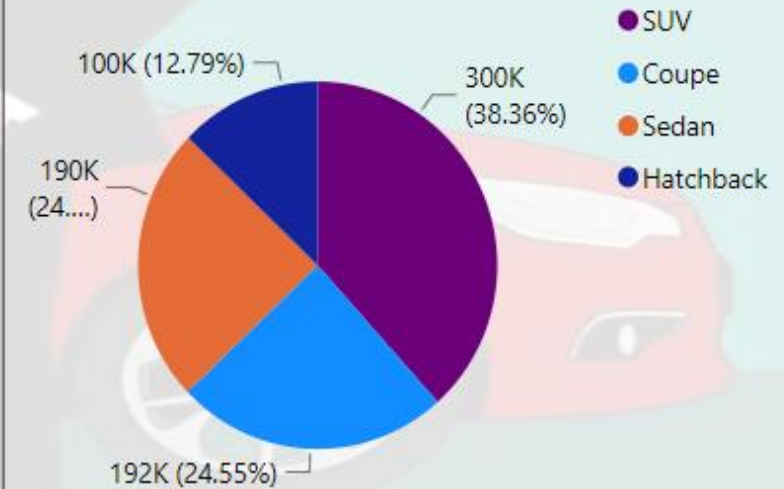
Revenue Generated by Cars



Cars Sold by Each Person



Revenue Generated by Car Styles



# THANK YOU

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