

Challenge-1

STEVE'S CAR SHOWROOM

By: Harshita Aswani

TABLES

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

QUESTION-1

What are the details of all cars purchased in the year 2022?

Query SQL ●

```
1 SELECT * FROM cars  
2 WHERE car_id IN (SELECT car_id FROM sales WHERE EXTRACT(YEAR FROM purchase_date) =  
2022);
```

car_id	make	type	style	cost_\$
1	Honda	Civic	Sedan	30000
2	Toyota	Corolla	Hatchback	25000
3	Ford	Explorer	SUV	40000
5	BMW	X5	SUV	55000
7	Mercedes	C-Class	Coupe	60000
8	Nissan	Altima	Sedan	26000

QUESTION-2

What is the total number of cars sold by each salesperson?

Query SQL •

```
1 SELECT s.salesman_id, sp.name, COUNT(s.car_id) as total_cars_sold  
2 FROM salespersons sp  
3 JOIN sales s ON sp.salesman_id = s.salesman_id  
4 GROUP BY s.salesman_id, sp.name;
```

salesman_id	name	total_cars_sold
1	John Smith	5
2	Emily Wong	5
3	Tom Lee	6
4	Lucy Chen	4



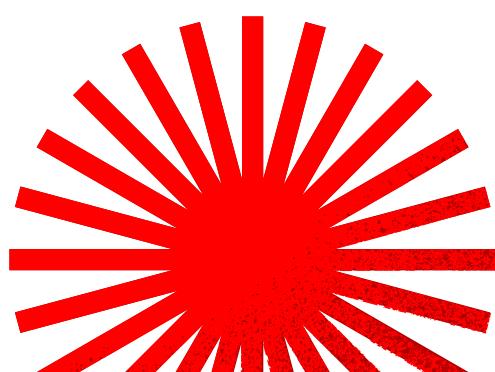
QUESTION–3

What is the total revenue generated by each salesperson?

Query SQL •

```
1 SELECT s.salesman_id, sp.name, SUM(c.cost$_) as total_revenue  
2 FROM salespersons sp  
3 JOIN sales s ON sp.salesman_id = s.salesman_id  
4 JOIN cars c ON s.car_id = c.car_id  
5 GROUP BY s.salesman_id, sp.name;
```

salesman_id	name	total_revenue
1	John Smith	181000
2	Emily Wong	177000
3	Tom Lee	253000
4	Lucy Chen	171000



Query SQL ●

```
1 SELECT s.salesman_id, sp.name, c.*  
2 FROM salespersons sp  
3 JOIN sales s ON sp.salesman_id = s.salesman_id  
4 JOIN cars c ON s.car_id = c.car_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

QUESTION-4

What are the details of the cars sold by each salesperson?

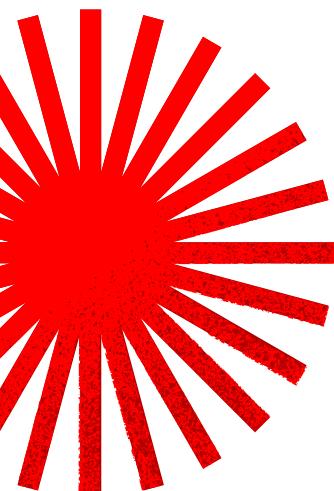


QUESTION-5

What is the total revenue generated by each car type?

Query SQL •

```
1 SELECT c.type, SUM(c.cost_) as total_revenue  
2 FROM cars c  
3 JOIN sales s ON c.car_id = s.car_id  
4 GROUP BY c.type;
```



type	total_revenue
A4	48000
Altima	52000
C-Class	120000
Camaro	72000
Civic	90000
Corolla	100000
Explorer	80000
X5	220000

QUESTION-6

What are the details of the cars sold in the year 2021 by salesperson 'Emily Wong'?

Query SQL ●

```
1 SELECT c.*  
2 FROM cars c  
3 JOIN sales s ON c.car_id = s.car_id  
4 JOIN salespersons sp ON s.salesman_id = sp.salesman_id  
5 WHERE sp.name = 'Emily Wong' AND EXTRACT(YEAR FROM s.purchase_date) = 2021;
```

car_id	make	type	style	cost_\$
2	Toyota	Corolla	Hatchback	25000
4	Chevrolet	Camaro	Coupe	36000



QUESTION-7

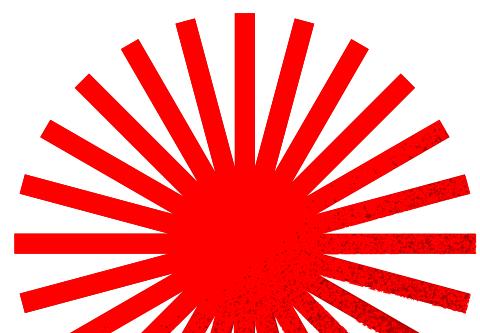
What is the total revenue generated by the sales of hatchback cars?

Query SQL •

```
1 SELECT SUM(c.cost$_) as total_revenue  
2 FROM cars c  
3 JOIN sales s ON c.car_id = s.car_id  
4 WHERE c.style = 'Hatchback';
```

total_revenue

100000





QUESTION-8

What is the total revenue generated by the sales of SUV cars in the year 2022?

Query SQL •

```
1 SELECT SUM(c.cost$_) as total_revenue  
2 FROM cars c  
3 JOIN sales s ON c.car_id = s.car_id  
4 WHERE c.style = 'SUV' AND EXTRACT(YEAR FROM s.purchase_date) = 2022;
```

total_revenue

150000



QUESTION-9

What is the name and city of the salesperson who sold the most number of cars in the year 2023?

Query SQL ●

```
1 SELECT sp.name, sp.city, COUNT(s.car_id) as total_cars_sold  
2 FROM salespersons sp  
3 JOIN sales s ON sp.salesman_id = s.salesman_id  
4 WHERE EXTRACT(YEAR FROM s.purchase_date) = 2023  
5 GROUP BY sp.name, sp.city  
6 ORDER BY total_cars_sold DESC  
7 LIMIT 1;
```

name	city	total_cars_sold
Tom Lee	Seattle	2

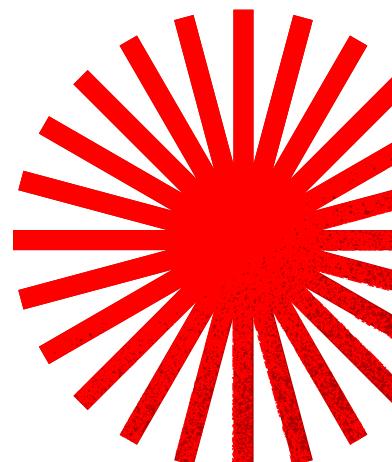
QUESTION-10

What is the name and age of the salesperson who generated the highest revenue in the year 2022?

Query SQL ●

```
1 SELECT sp.name, sp.age, SUM(c.cost_) as total_revenue  
2 FROM salespersons sp  
3 JOIN sales s ON sp.salesman_id = s.salesman_id  
4 JOIN cars c ON s.car_id = c.car_id  
5 WHERE EXTRACT(YEAR FROM s.purchase_date) = 2022  
6 GROUP BY sp.name, sp.age  
7 ORDER BY total_revenue DESC  
8 LIMIT 1;
```

name	age	total_revenue
Emily Wong	35	116000



**THANK
YOU**