

Steve's Car Show room

SQL Analysis



BELLEVILLE, IL LOC

Challenge

Steve runs a top-end car showroom but his data analyst has just quit and left him without his crucial insights.

Can you analyze the following data to provide him with all the answers he requires?



In Steve's Car Showroom database, there are three tables as follows:

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

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

```
92      #Questions::  
93  
94      #1. What are the details of all cars purchased in the year 2022?  
95 •  select cars.car_id,cars.make,cars.type,cars.style,cars.cost_$ ,sales.purchase_date from cars  
96      inner join sales  
97      on  
98      cars.car_id=sales.car_id  
99      where year(purchase_date)=2022;  
100
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

	car_id	make	type	style	cost_\$	purchase_date
▶	1	Honda	Civic	Sedan	30000	2022-02-03
	1	Honda	Civic	Sedan	30000	2022-07-09
	2	Toyota	Corolla	Hatchback	25000	2022-01-01
	3	Ford	Explorer	SUV	40000	2022-05-05
	5	BMW	X5	SUV	55000	2022-04-02

Result 133 ×

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

```
101  
102  
103      #2. What is the total number of cars sold by each salesperson?  
104 •  select sales.salesman_id, name , count(sale_id)   from sales  
105      inner join salespersons  
106      on  
107      sales.salesman_id=salespersons.salesman_id  
108      group by sales.salesman_id;  
109  
110  
111  
112 |  
113
```

Result Grid | Filter Rows: Export: Wrap Cell Content:

	salesman_id	name	count(sale_id)
▶	1	John Smith	5
	2	Emily Wong	5
	3	Tom Lee	6
	4	Lucy Chen	4

Result 134 ×
Output

3. What is the total revenue generated by each salesperson?

```
93 •   select s.salesman_id,sp.name,sum(c.cost$_) AS Total_Revenue  
94     from sales as s  
95     inner join salespersons as sp  
96     on s.salesman_id = sp.salesman_id  
97     inner join cars as c  
98     on c.car_id = s.car_id  
99     group by s.salesman_id;  
100
```

Result Grid | Filter Rows: Export: Wrap Cell Content:

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

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

```
#4. What are the details of the cars sold by each salesperson?  
• select sales.salesman_id,salespersons.name,cars.car_id,cars.make,cars.type,cars.style,cars.cost_$ from cars  
inner join sales  
on  
cars.car_id=sales.car_id  
inner join salespersons  
on  
sales.salesman_id=salespersons.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

5. What is the total revenue generated by each car type?

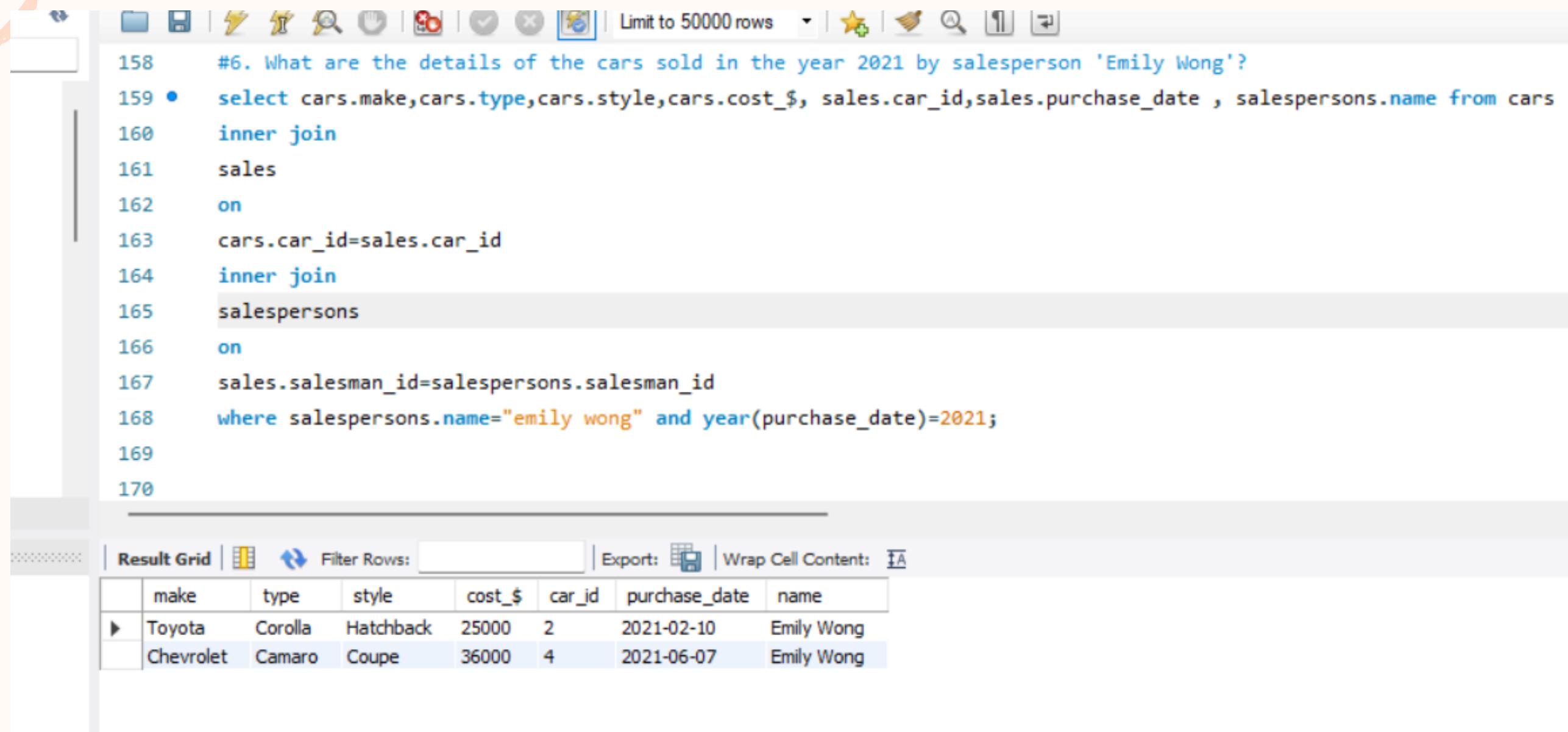
```
146
147      #5. What is the total revenue generated by each car type?
148 •  select sales.car_id ,type , sum(cost_) as total_revenue   from cars
149      inner join sales
150      on
151      cars.car_id=sales.car_id
152      group by car_id
153      order by total_revenue desc;
154
155
```

Result Grid | Filter Rows: Export: Wrap Cell Content:

	car_id	type	total_revenue
▶	5	X5	220000
	7	C-Class	120000
	2	Corolla	100000
	1	Civic	90000
	3	Explorer	80000

Result 139 ×

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



The screenshot shows a database query interface with the following details:

SQL Query (Lines 158-170):

```
158  #6. What are the details of the cars sold in the year 2021 by salesperson 'Emily Wong'?
159 • select cars.make,cars.type,cars.style,cars.cost_$, sales.car_id,sales.purchase_date , salespersons.name from cars
160   inner join
161   sales
162   on
163   cars.car_id=sales.car_id
164   inner join
165   salespersons
166   on
167   sales.salesman_id=salespersons.salesman_id
168   where salespersons.name="emily wong" and year(purchase_date)=2021;
169
170
```

Result Grid:

	make	type	style	cost_\$	car_id	purchase_date	name
▶	Toyota	Corolla	Hatchback	25000	2	2021-02-10	Emily Wong
	Chevrolet	Camaro	Coupe	36000	4	2021-06-07	Emily Wong

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

```
1/0  
171      #7. What is the total revenue generated by the sales of hatchback cars?  
172 •  select cars.style , sum(cost$_) , sales.car_id from cars  
173   inner join sales  
174     on  
175       cars.car_id=sales.car_id  
176     where cars.style="hatchback"  
177     group by cars.style , sales.car_id;  
178  
179
```

Result Grid | Filter Rows: Export: Wrap Cell Content:

	style	sum(cost\$_)	car_id
▶	Hatchback	100000	2

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

```
181  
182  
183 #8. What is the total revenue generated by the sales of SUV cars in the year 2022?  
184 • select cars.style , sum(cars.cost$_) from cars  
185 inner join sales  
186 on  
187 cars.car_id=sales.car_id  
188 where style="suv" and year(purchase_date)="2022"  
189 group by cars.style;  
190  
191
```

Result Grid | Filter Rows: | Export: Wrap Cell Content: A

	style	sum(cars.cost\$_)
▶	SUV	150000

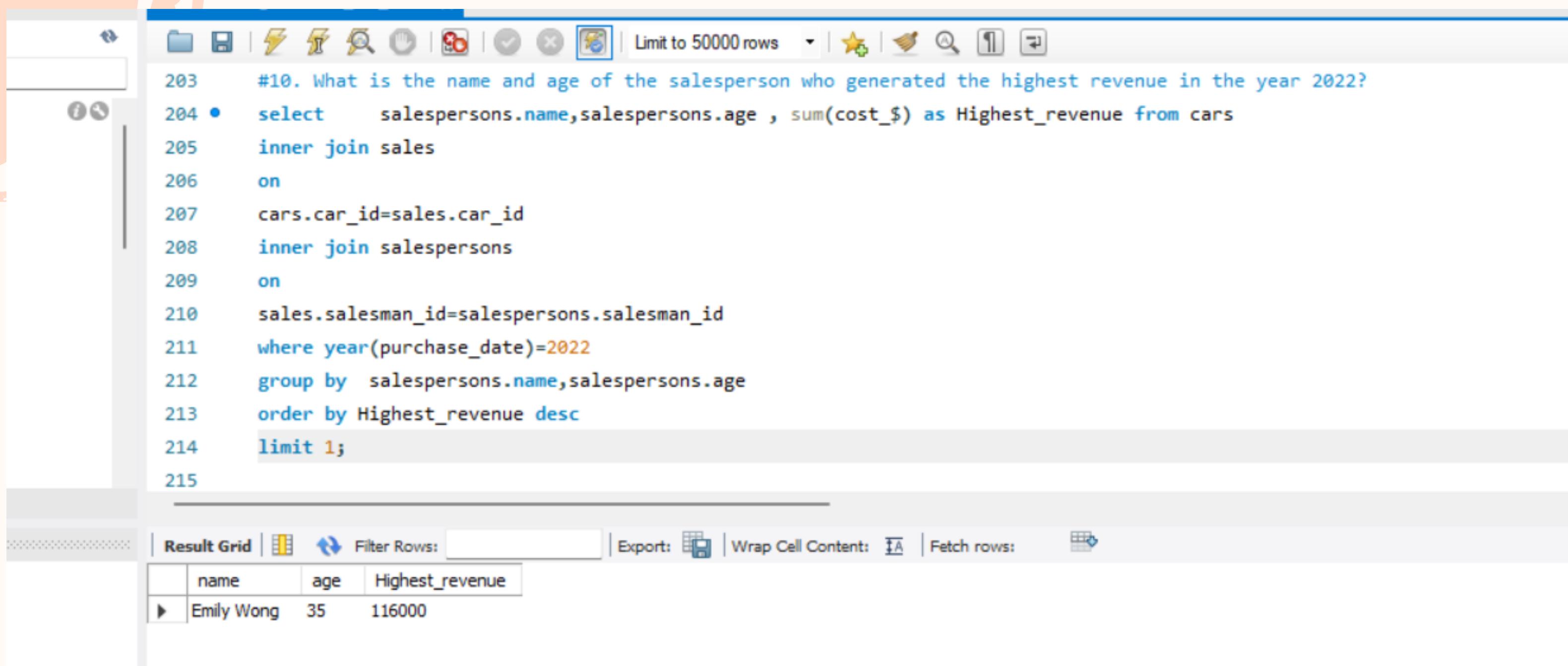
9. What is the name and city of the salesperson who sold the most number of cars in the year 2023?

```
191
192      #9. What is the name and city of the salesperson who sold the most number of cars in the year 2023?
193 •  select      sales.salesman_id,salespersons.name,salespersons.city , count(sales.sale_id) as Total_cars_sold  from sales
194      inner join salespersons
195      on
196      sales.salesman_id=salespersons.salesman_id
197      where  year(purchase_date)="2023"
198      group by sales.salesman_id,salespersons.name,salespersons.city
199      order by Total_cars_sold desc
200      limit 1;
201
202
203      #10. What is the name and age of the salesperson who generated the highest revenue in the year 2022?
```

Result Grid | Filter Rows: _____ | Export: | Wrap Cell Content: | Fetch rows: |

	salesman_id	name	city	Total_cars_sold
▶	3	Tom Lee	Seattle	2

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



The screenshot shows a MySQL Workbench interface with a query editor and a results grid.

Query Editor:

```
203  #10. What is the name and age of the salesperson who generated the highest revenue in the year 2022?
204 • select      salespersons.name,salespersons.age , sum(cost$_) as Highest_revenue from cars
205   inner join sales
206   on
207     cars.car_id=sales.car_id
208   inner join salespersons
209   on
210     sales.salesman_id=salespersons.salesman_id
211   where year(purchase_date)=2022
212   group by salespersons.name,salespersons.age
213   order by Highest_revenue desc
214   limit 1;
215
```

Result Grid:

	name	age	Highest_revenue
▶	Emily Wong	35	116000



Thank
you