DATA ANALYTICS SQL MINI-PROJECT

CARS 24

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CAP-DS-05-(cds_05_078)

Data Analytics SQL Mini-Project

Database :- We have been provided with Data of ***CARS24*** Company, this company sells the used cars with suitable prices. In this database we have following data (in columns)….

1. **Name :-** Here in this column we have dataset of Model or names of the respective cars.
2. **Year :-** In this column we have Manufacturing Year of the respective cars.
3. **Selling price :-** here we have the price of cars sold.
4. **Kilometer Driven :-** In this column we have the kilometers driven by the cars.
5. **Fuel Type :-** The type of fuel used in cars such as… Petrol / Diesel
6. **Transmission Type :- The** type of seller i.e.(Individual, Dealer or Trustmark Dealer)
7. **Owners :-** The number of previous owners of the car i.e. (First owner, Second Owner or like that).
8. **Mileage :-** Mileage of cars i.e. km/liter of fuel.
9. **Engine (cc) :-** In this column we have the Engine Displacement in cubic centimeters(cc)
10. **Maximum Power :-** The power of engine cars have.
11. **Seats :-** The number of seats a car have.

Insights

- **Insight 1.** :- Getting the Maximum ,Minimum & Average Selling Price of cars.

- *select max(selling_price) as max_price from cars24;*

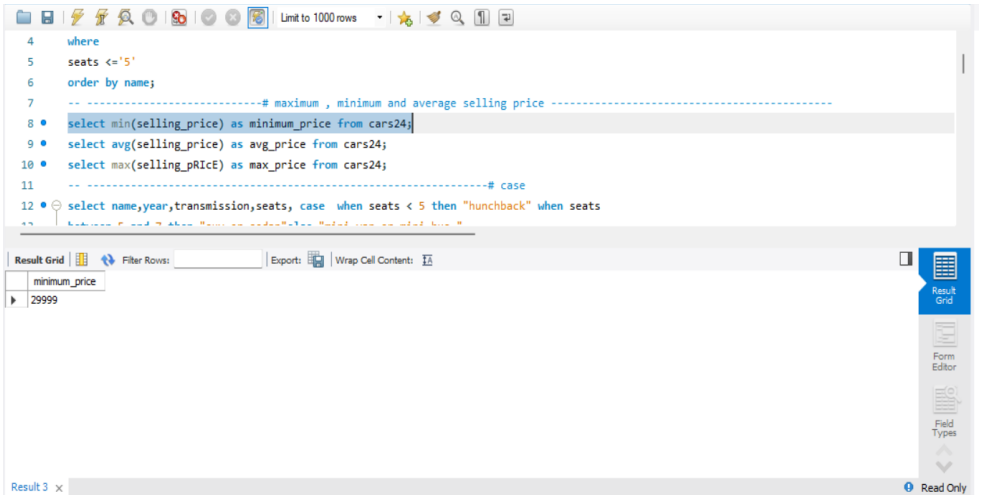
```
select min(selling_price) as minimum_price from cars24;
select avg(selling_price) as avg_price from cars24;
select max(selling_pRIcE) as max_price from cars24;
select name,year,transmission,seats, case  when seats < 5 then "hunchback" when seats
```

Filter Rows: | Export: | Wrap Cell Content:

max_price
10000000

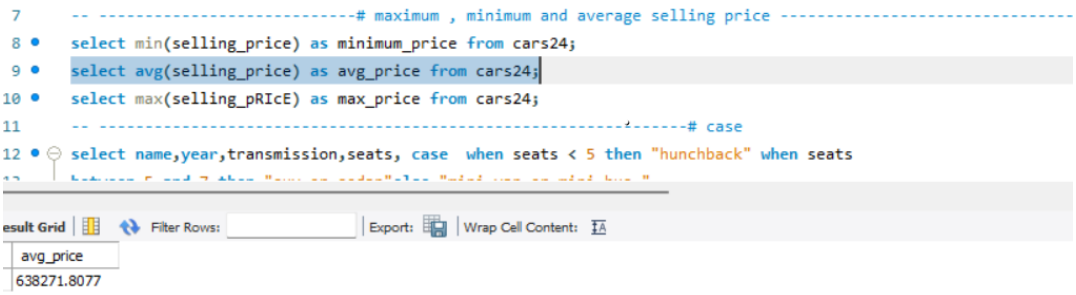
Pic 1.(a)

- *select min(selling_price) as minimum_price from cars24;*



Pic 1.(b)

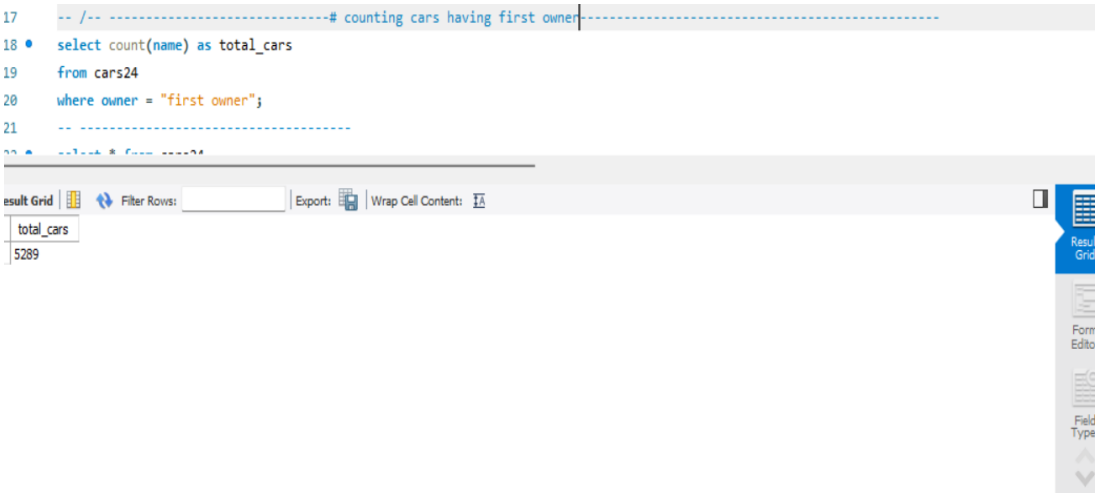
- *select avg(selling_price) as avg_price from cars24;*



Pic1.(c)

➢ **Insight 2**. :- Counting the total number of cars where the owner is ‘first owner’ (or in layman’s word first hand cars).

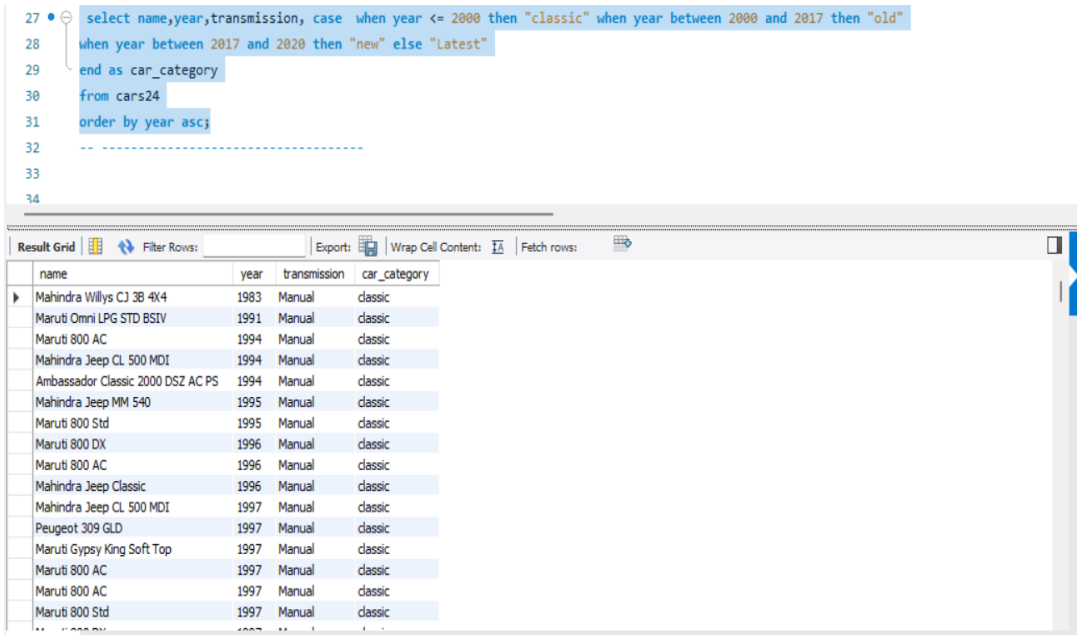
- *select count(name) as total_cars*
  from cars24 where owner = "first owner";



Pic 2.

- **Insight 3.** :- Categorize the cars according to there manufacturing year as Classic, Old, New and Latest.

- *select name, year, transmission, case when year <= 2000 then "classic" when year between 2000 and 2017 then "old" when year between 2017 and 2020 then "new" else "Latest" end as car_category*
  from cars24 order by year asc;



Pic 3.

➢ **Insight 4.** :- Getting the names , year ,selling price , owner and Mileage of those cars whose mileage is greater than and equal to average mileage.

- *select name, year, selling_price , owner, mileage from cars24*
  where mileage >= (select avg(mileage) as avg_mileage from cars24)
  group by name, year, selling_price , owner, mileage
  order by year;

```
52 •  select name from cars24
53    where mileage = (select avg(mileage) as avg_mileage);
54
55 •  select name, year, selling_price from cars24
56    where mileage > (select avg(mileage) as avg_mile from cars24)
57    group by name,year,selling_price
58    order by selling_price;
59
60 •  select name,year,selling_price
61    from cars24
```

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

name	year	selling_price
Tata Nano Cx	2011	45000
Tata Nano LX SE	2012	45000
Tata Nano Lx BSIV	2010	45000
Maruti Alto LX	2000	45957
Tata Nano Cx	2011	46000
Maruti Alto LX	2005	55000
Tata Nano Cx BSIV	2010	55000
Maruti Alto LX	2004	60000
Tata Nano Lx BSIV	2012	60000
Tata Nano Cx BSIII	2012	60000
Tata Nano STD	2012	64000
Maruti Alto LXI	2003	65000
Maruti Alto LX	2006	65000
Tata Nano Lx BSIV	2010	65000
Tata Nano XE	2017	66000
Tata Nano Lx	2011	70000

Pic.4

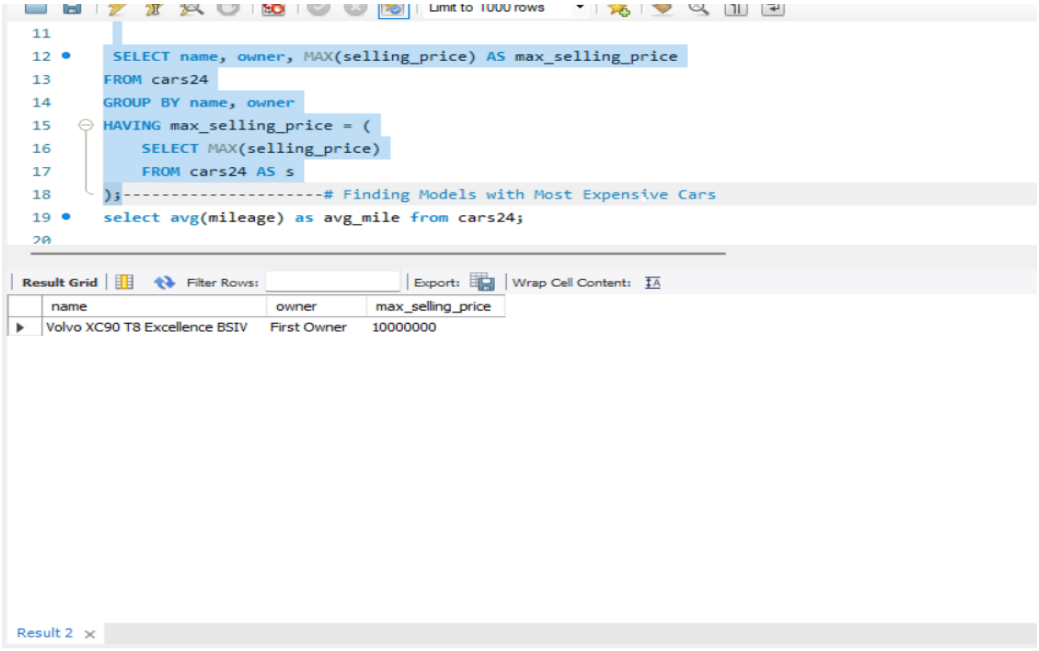
➢ **Insight 5**:- finding most expensive car in list .

- *Select name, owner, max(selling_price) as max_selling_price*
  from cars24
  group by name, owner
  having max_selling_price = (

select max(selling_price)

from cars24 as s

);

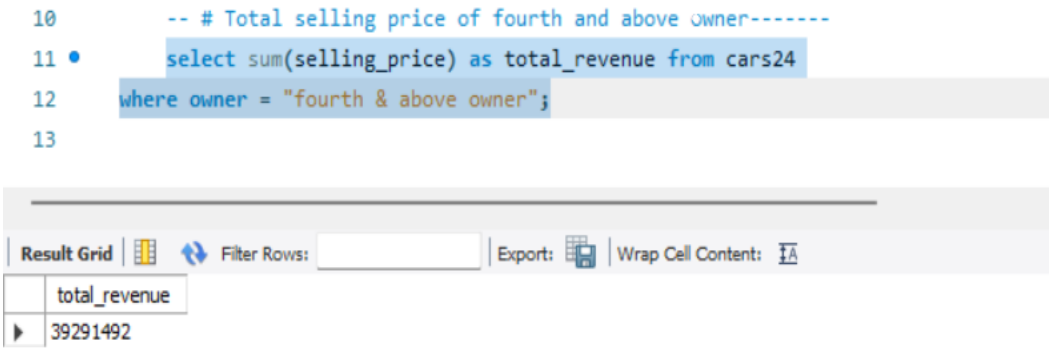


Pic 5.

- **Insight 6**:- Calculating the total selling price of fourth and above owner.

select sum(selling_price) as total_revenue from cars24

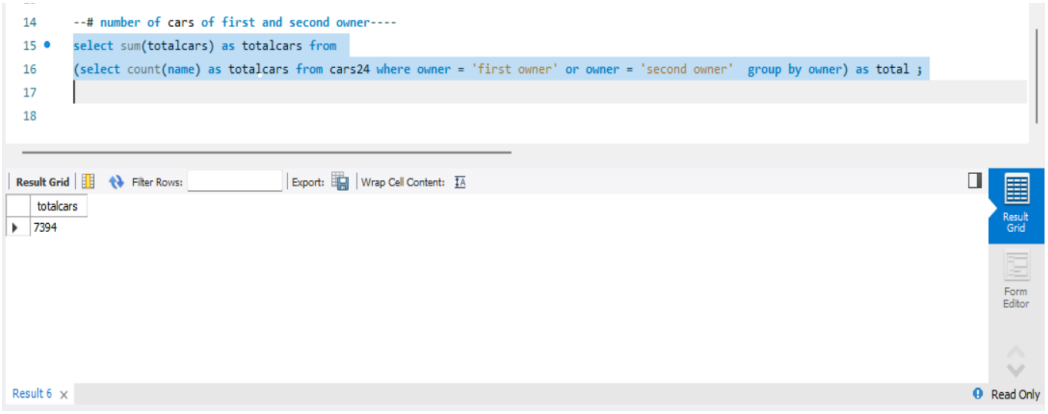
where owner = "fourth & above owner";



Pic 6.

➢ **Insight 7** :- Calculating the total cars who have first and second owner.

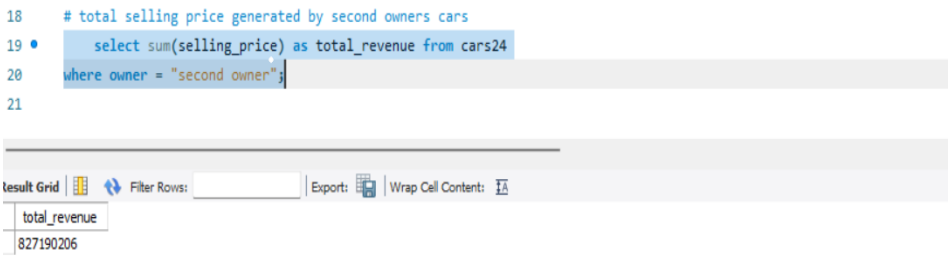
- *select sum(totalcars) as totalcars from*
  (select count(name) as totalcars from cars24 where owner = 'first owner' or owner = 'second owner' group by owner) as total ;



Pic 07.

➢ **Insight 8.**:- Calculating the total selling price of second owner.

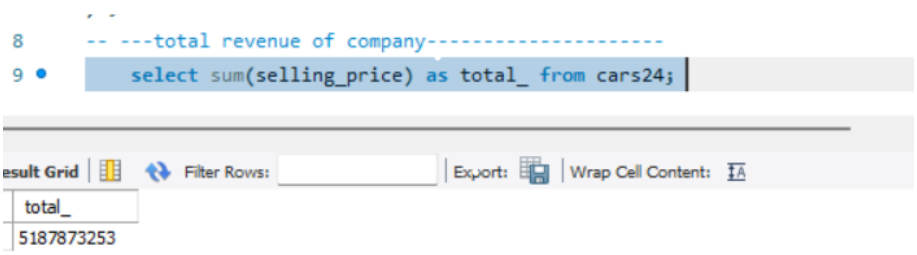
- *select sum(selling_price) as total_revenue from cars24*
  where owner = "second owner";



Pic 08.

➢ **Insight 9.**:- Total revenue of company.

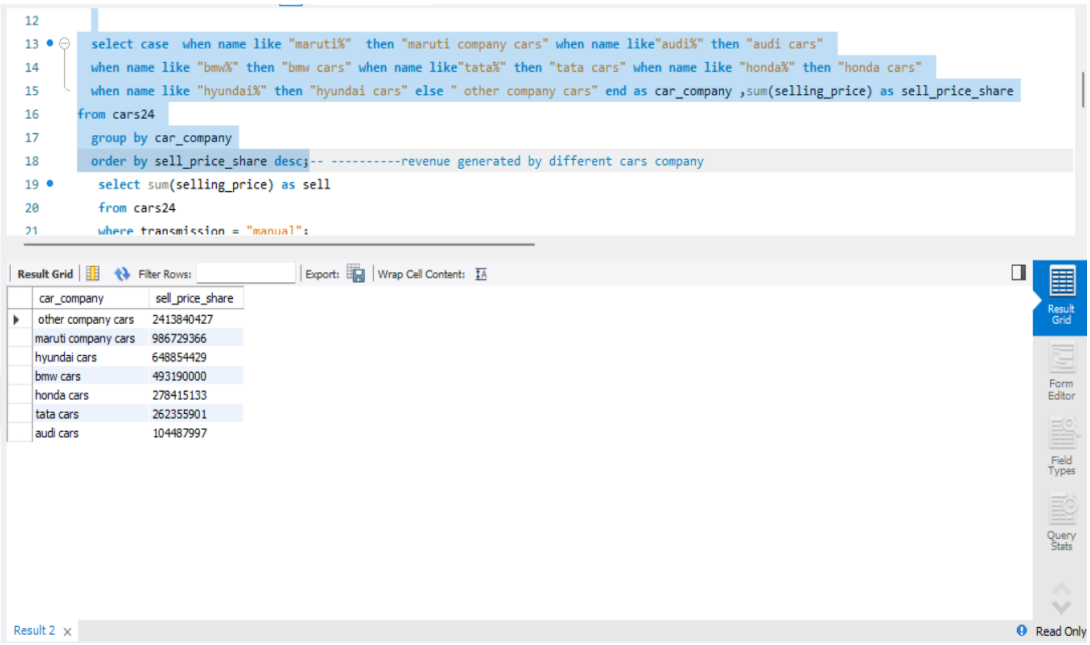
- *select sum(selling_price) as total_ from cars24;*



Pic 09.

➢ **Insight 10.:-** Different company share in total revenue.

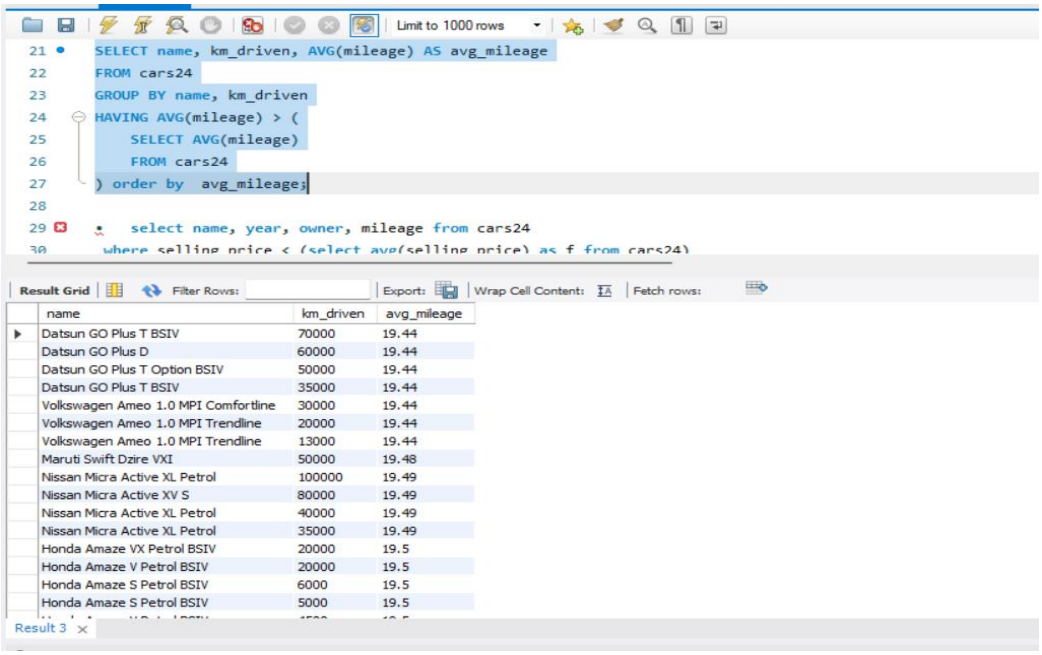
- *select case when name like "maruti%" then "maruti company cars" when name like"audi%" then "audi cars"*
  when name like "bmw%" then "bmw cars" when name like"tata%" then "tata cars" when name like "honda%" then "honda cars"
  when name like "hyundai%" then "hyundai cars" else " other company cars" end as car_company ,sum(selling_price) as sell_price_share
  from cars24
  group by car_company
  order by sell_price_share desc;



Pic 10.

- **Insight 11:-** select total cars from data where cars mileage is equal to or greater than average mileage.

- *select name, km_driven, avg(mileage) as avg_mileage*
  from cars24
  group by name, km_driven
  having avg(mileage) > (
  Select avg(mileage)
  from cars24)
  order by avg_mileage;



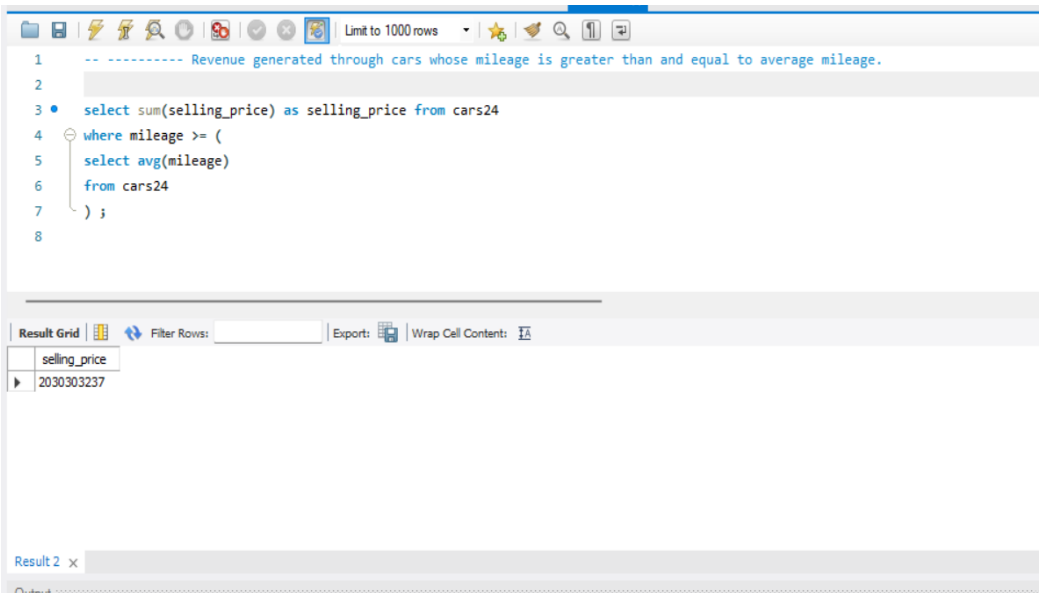
```
SELECT name, km_driven, AVG(mileage) AS avg_mileage
FROM cars24
GROUP BY name, km_driven
HAVING AVG(mileage) > (
    SELECT AVG(mileage)
    FROM cars24
) order by  avg_mileage;

    select name, year, owner, mileage from cars24
```

name	km_driven	avg_mileage
Datsun GO Plus T BSIV	70000	19.44
Datsun GO Plus D	60000	19.44
Datsun GO Plus T Option BSIV	50000	19.44
Datsun GO Plus T BSIV	35000	19.44
Volkswagen Ameo 1.0 MPI Comfortline	30000	19.44
Volkswagen Ameo 1.0 MPI Trendline	20000	19.44
Volkswagen Ameo 1.0 MPI Trendline	13000	19.44
Maruti Swift Dzire VXI	50000	19.48
Nissan Micra Active XL Petrol	100000	19.49
Nissan Micra Active XV S	80000	19.49
Nissan Micra Active XL Petrol	40000	19.49
Nissan Micra Active XL Petrol	35000	19.49
Honda Amaze VX Petrol BSIV	20000	19.5
Honda Amaze V Petrol BSIV	20000	19.5
Honda Amaze S Petrol BSIV	6000	19.5
Honda Amaze S Petrol BSIV	5000	19.5

Pic 11.

- **Insight 12.:-** Revenue generated through cars whose mileage is greater than and equal to average mileage.

- *select sum(selling_price) as selling_price from cars24*
  where mileage >= (
  select avg(mileage)
  from cars24) ;



```
-- ---------- Revenue generated through cars whose mileage is greater than and equal to average mileage.

select sum(selling_price) as selling_price from cars24
where mileage >= (
select avg(mileage)
from cars24
) ;
```

selling_price
2030303237

Pic12.

➢ **Insight 13.**:- Revenue generated by total no. of cars according to their transmission.

- *select case when transmission = "automatic" then "automatic Cars" when transmission = "manual" then "manual cars"*
  end as Transmission_type , sum(selling_price) as sell_price_share
  from cars24
  group by Transmission_type
  order by sell_price_share desc;

```
42
43 •    select case  when transmission = "automatic" then "automatic Cars" when transmission = "manual" then "manual cars"
44      end as Transmission_type,sum(selling_price) as sell_price_share
45  from cars24
46    group by Transmission_type
47    order by sell_price_share desc;
```

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

Transmission_type	sell_price_share
manual cars	3223504269
automatic Cars	1964368984

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Pic 13.