**Car Sales Analysis MySQL QUERY DOCUMENT**

**Car Sales Analysis| SUMMARY : BY Shivanand S Nashi**

**1. Create a Database Carsales**

**This creates a new database named Carsales in MySQL.**

**Create database Carsales;**

**if the database doesn’t exist**

**CREATE DATABASE IF NOT EXISTS Carsales;**

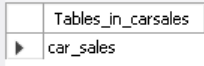
**2. Select the Carsales Database**

**use Carsales;**

**3. Show All Tables in the Database**

**This lists all tables present in the Carsales database.**

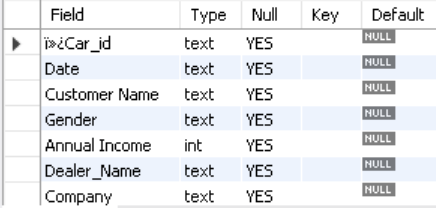
**SHOW TABLES;**

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**4. Describe the Car\_Sales Table Structure**

**This shows the columns, data types, keys, and constraints of the Car\_Sales table.**

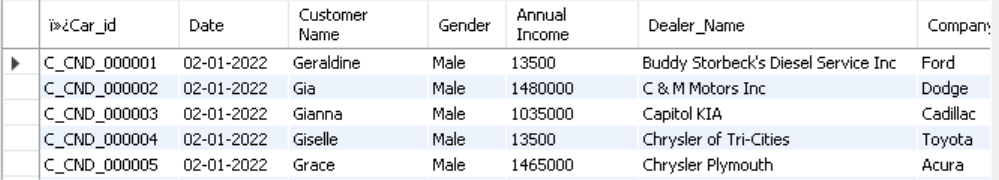
**describe Car\_Sales ;**

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**5. Retrieve All Data from Car\_Sales**

**This selects all rows and columns from the Car\_Sales table.**

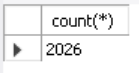
**select \* from car\_sales;**

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**6. Count the Total Number of Rows in Car\_Sales**

**This returns the total number of records (rows) in the table.**

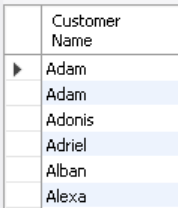
**select count(\*) from car\_sales;**

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**7. Retrieve Customer Names Who Bought a Ford Car**

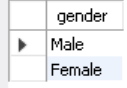
**SELECT `Customer Name` FROM Car\_Sales**

**WHERE company = 'Ford' ORDER BY `Customer Name`;**

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**-- check how many gendercar\_sales--**

**select distinct(gender) from car\_sales;**

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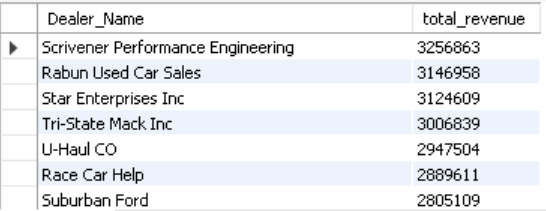
**-- Sales Performance Analysis--**

**1.What is the total revenue generated by each dealer?**

**SELECT Dealer\_Name, SUM(`Price ($)`) AS total\_revenue**

**FROM car\_sales GROUP BY Dealer\_Name ORDER BY total\_revenue DESC**

**LIMIT 1000;**

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**2.Which dealer has the highest number of sales?**

**select Dealer\_Name, count(ï»¿Car\_id) as number\_of\_order**

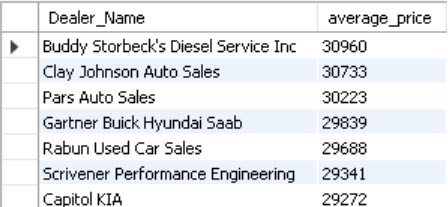
**from Car\_sales group by Dealer\_Name order by number\_of\_order desc limit 6;**

****

**3.What is the average price of cars sold by each dealer?**

**SELECT Dealer\_Name, CAST(AVG(`Price ($)`) AS UNSIGNED) AS average\_price**

**FROM Car\_sales GROUP BY Dealer\_Name ORDER BY average\_price DESC;**

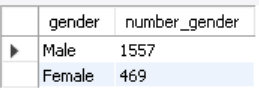
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**-- Customer Demographics and Behavior--**

**1.What is the gender distribution of customers?**

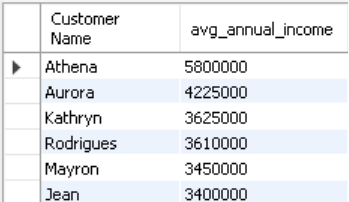
**select gender , count(gender) as number\_gender**

**from car\_sales group by gender order by number\_gender desc;**

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**2.What is the average annual income of customers?**

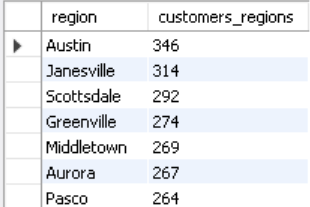
**SELECT `Customer Name`, CAST(AVG(`Annual Income`) AS UNSIGNED) AS avg\_annual\_income FROM car\_sales GROUP BY `Customer Name` ORDER BY avg\_annual\_income DESC;**

****

**3.What is the distribution of customers based on the dealer regions?**

**select Dealer\_Region as region, count(Dealer\_Region) as customers\_regions**

**from Car\_Sales group by region order by customers\_regions desc;**

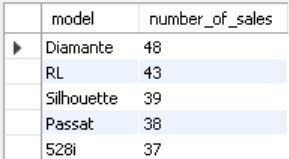
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**-- Model and Company Insights--**

**1.What are the top 5 most popular car models?**

**select model, count(ï»¿Car\_id) as number\_of\_sales**

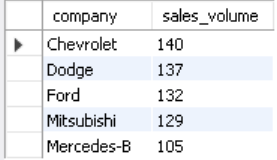
**from Car\_Sales group by model order by number\_of\_sales desc limit 5;**

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**2.Which company has the highest sales volume?**

**select company, count(ï»¿Car\_id) as sales\_volume**

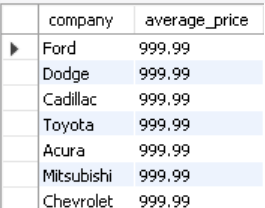
**from car\_sales group by company order by sales\_volume desc limit 5;**

****

**3.What is the average price of cars from each company?**

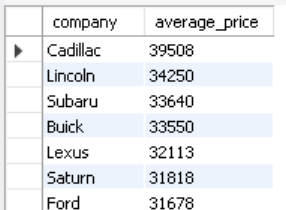
**select company , cast(avg(`Price ($)`) as decimal(5,2) )as average\_price**

**from car\_sales group by company order by average\_price desc;**

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**SELECT company, CAST(AVG(`Price ($)`) AS UNSIGNED) AS average\_price**

**FROM Car\_Sales GROUP BY company ORDER BY average\_price DESC;**

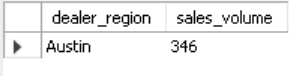
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**-- Regional Analysis--**

**1.Which dealer region has the highest sales revenue?**

**select dealer\_region, count(ï»¿Car\_id) as sales\_volume**

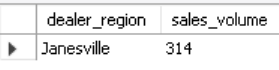
**from car\_sales group by dealer\_regionorder by sales\_volume desc limit 1 offset 0;**

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**2.Which dealer region has the 2nd highest sales revenue?**

**select dealer\_region, count(ï»¿Car\_id) as sales\_volume**

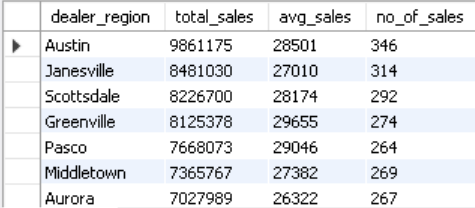
**from car\_sales group by dealer\_region order by sales\_volume desc limit 1 offset 1;**

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**3.What is the sales performance comparison between different dealer regions?**

**select dealer\_region,sum(`Price ($)`) as total\_sales,round(avg(`Price ($)`)) as avg\_sales,**

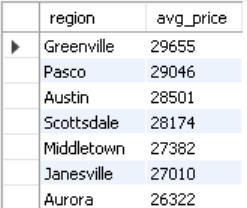
**count(ï»¿Car\_id) as no\_of\_sales from car\_sales group by dealer\_region order by total\_sales desc;**

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**4.How does the average car price vary across different regions?**

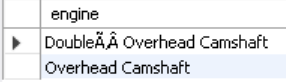
**select dealer\_region as region, round(avg(`Price ($)`)) as avg\_price**

**from car\_sales group by region order by avg\_price desc;**

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**-- Engine and Transmission Preferences--**

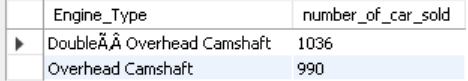
**select distinct(engine) from car\_sales;**

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**1.What is the distribution of engine types among sold cars?**

**select engine as Engine\_Type,count(ï»¿Car\_id) as number\_of\_car\_sold**

**from car\_sales group by Engine\_Type order by number\_of\_car\_sold desc;**

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**2.What percentage of cars sold have automatic vs. manual transmission?**

**SELECT TRANSMISSION , COUNTS ,**

**(COUNTS \*100.0 / (SELECT COUNT(\*) FROM CAR\_SALES) ) AS PERCENTAGE**

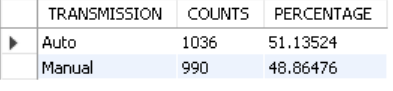
**FROM(**

**SELECT TRANSMISSION , COUNT(TRANSMISSION) COUNTS**

**FROM CAR\_SALES**

**GROUP BY TRANSMISSION ORDER BY COUNTS DESC**

**) AS TRAN;**

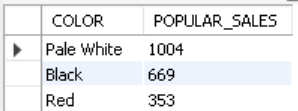
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**-- Color and Body Style Trends--**

**1.What are the top 3 most popular car colours?**

**SELECT COLOR , COUNT(ï»¿Car\_id) AS POPULAR\_SALES**

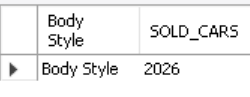
**FROM CAR\_SALES GROUP BY COLOR ORDER BY POPULAR\_SALES DESC LIMIT 3;**

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**2.What is the distribution of body styles among sold cars?**

**SELECT 'Body Style' , COUNT(ï»¿Car\_id) AS SOLD\_CARS**

**FROM CAR\_SALES GROUP BY 'Body Style' ORDER BY SOLD\_CARS DESC;**

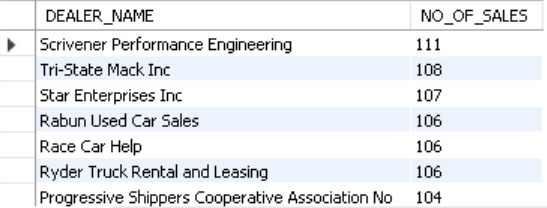
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**-- Dealer Performance--**

**1.What is the total number of sales made by each dealer?**

**SELECT DEALER\_NAME, COUNT(ï»¿Car\_id) NO\_OF\_SALES**

**FROM CAR\_SALES GROUP BY DEALER\_NAME ORDER BY NO\_OF\_SALES DESC;**

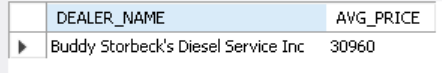
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**2.Which dealer has the highest average sales price?**

**SELECT DEALER\_NAME, ROUND(AVG(`Price ($)`)) AS AVG\_PRICE**

**FROM CAR\_SALES GROUP BY DEALER\_NAME ORDER BY AVG\_PRICE DESC**

**LIMIT 1;**

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