Walmart Sales Analysis (2019–2023)

**-- EDA**

describe walmart\_sales;

ALTER TABLE walmart\_sales

MODIFY COLUMN date DATE;

SELECT DISTINCT date

FROM walmart\_sales

WHERE STR\_TO\_DATE(date, '%Y-%m-%d') IS NULL

OR date IS NULL

OR date = '';

UPDATE walmart\_sales

SET date = STR\_TO\_DATE(date, '%Y-%m-%d');

Select \* from walmart\_sales;

**Data correction**

update walmart\_clean\_data

SET date = STR\_TO\_DATE(date, '%Y-%m-%d');

ALTER TABLE walmart\_clean\_data

MODIFY COLUMN date DATE;

update walmart\_clean\_data

set time = str\_to\_date(time, '%H:%i:%s');

ALTER TABLE walmart\_clean\_data

MODIFY COLUMN time time;

**describe walmart\_sales;**

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**-- KPIs**

select year(date) as Year,

count(\*) as Total\_Transactions,

sum(Sales\*profit\_margin) as Total\_Revenue,

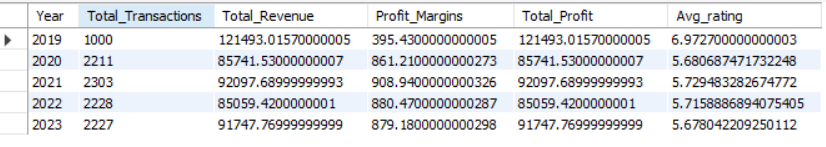
sum(profit\_margin) as Profit\_Margins,

sum(Profit) as Total\_Profit,

avg(rating) as Avg\_rating from walmart\_sales

group by year(date)

order by Year;

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**-- Count total records:**

select count(\*) as Total\_records from walmart\_clean\_data;

**-- Count payment methods and number of transactions by payment method**

select payment\_method , count(\*) as Total\_transactions from walmart\_clean\_data

group by 1;

**-- Count distinct branches**

select \* from walmart\_clean\_data;

select count(distinct branch) from walmart\_clean\_data;

**-- Find the minimum quantity sold**

SELECT MIN(quantity) FROM walmart\_clean\_data;

**-- Q1: Find different payment methods, number of transactions, and quantity sold by payment method**

select payment\_method,

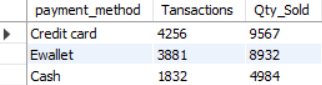
count(\*) as Tansactions,

sum(quantity) as Qty\_Sold

from walmart\_sales

group by payment\_method

order by Tansactions desc;



**-- Q2 Identify the highest rated category in each branch. displaying the branch, category and avg rating**

select branch, category,avg(rating) as Avg\_Rating

from walmart\_sales

group by branch,category

order by Avg\_Rating desc;



**-- Q3 Identify the busiest day for each branch based on the number of transactions**

**select \* from walmart\_sales;**

**describe walmart\_sales;**

SELECT

DATE(date) AS Day,

Branch,

COUNT(\*) AS Transactions

FROM

walmart\_sales

GROUP BY

DATE(date), Branch

HAVING

COUNT(\*) = (

SELECT

MAX(transaction\_count)

FROM (

SELECT

DATE(date) AS day,

Branch,

COUNT(\*) AS transaction\_count

FROM

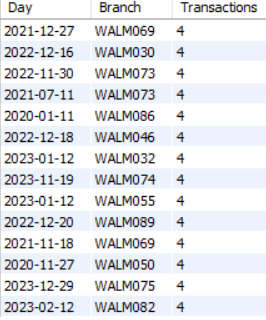
walmart\_sales

GROUP BY

DATE(date), Branch

) AS subquery

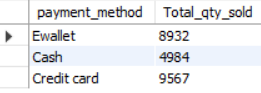
);

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**-- Q4: Calculate the total quantity of items sold per payment method**

select payment\_method, sum(quantity) as Total\_qty\_sold from walmart\_sales

group by 1;

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**-- Q5 determine the average, minmum and maximum rating of a product for each city.**

**-- list the city, avg rating, minimum\_rating, max\_rating**

select city, Avg(rating) as Avg\_Rating,

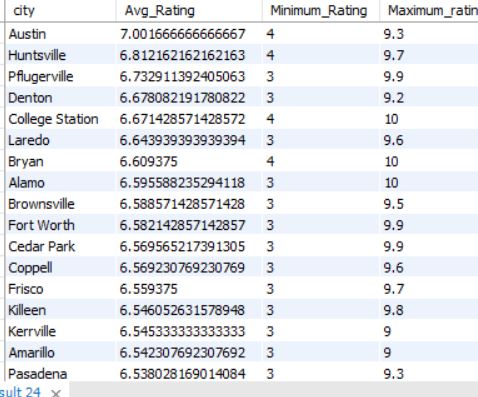
min(rating) as Minimum\_Rating,

max(rating) as Maximum\_rating

from walmart\_sales

group by city

order by Avg\_Rating desc;



**-- Q6 calculate the total profit for each category by considering tota\_profit as**

**-- (Sales \* profit margin), list category and total profit ordered from highest to lowest profit**

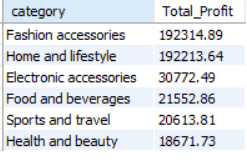
select category,

round(sum(Sales \* profit\_margin),2) as Total\_Profit

from walmart\_sales

group by category

order by Total\_Profit desc ;

****

**-- Q7 determine the most common payment method for each branch**

**-- display branch and paymentmentod**

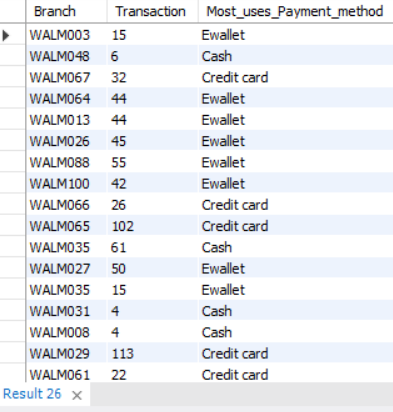
select branch as Branch,

count(\*) as Transaction,

payment\_method as Most\_uses\_Payment\_method

from walmart\_sales

group by Branch,Most\_uses\_Payment\_method;

****

**-- Q8 categorize sales into 3 groups moring, afetnoon and evening**

**-- find out which of the shift and numbert of invoices**

select case

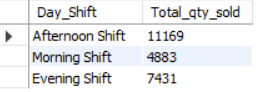
when hour(time)<12 then 'Morning Shift'

when hour(time) between 12 and 17 then 'Afternoon Shift'

else 'Evening Shift'

end as Day\_Shift, sum(quantity) as Total\_qty\_sold from walmart\_sales

group by 1;

****

**-- Q9 Find Sales By month**

select month(date) as Month,monthname(date) as Month\_Name ,sum(Sales) as Sales\_By\_Month

from walmart\_sales

group by month(date),monthname(date)

order by month(date);

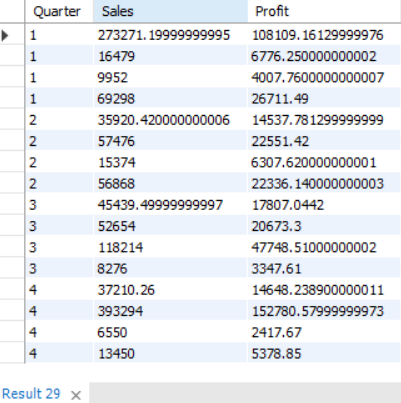
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**-- Q10 Find Sales & Profit By quater**

Select quarter(date)as Quarter,sum(Sales) as Sales,sum(Profit) as Profit

from walmart\_sales group by Quarter, quarter(date)

order by quarter(date), Quarter;

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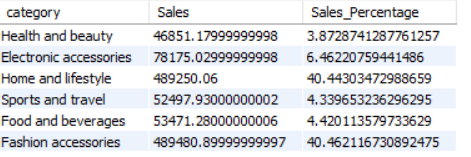
**-- Q11 Get the sales by category**

Select category, sum(Sales) as Sales ,

(SUM(Sales) / (SELECT SUM(Sales) FROM walmart\_sales)) \* 100 AS Sales\_Percentage

from walmart\_sales

group by category;

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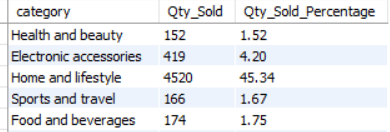
**-- Q12 Get the Qty Sold by category**

Select category, count(quantity) as Qty\_Sold,

round( (count(quantity) / (SELECT count(quantity) FROM walmart\_sales)) \* 100,2) AS Qty\_Sold\_Percentage

from walmart\_sales

group by category;



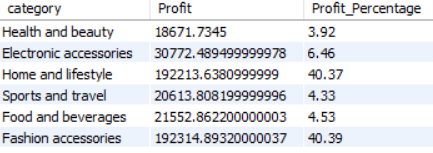
**-- Q13 Get the Profit by category**

Select category, sum(Profit) as Profit,

round( (sum(Profit) / (SELECT sum(Profit) FROM walmart\_sales)) \* 100,2) AS Profit\_Percentage

from walmart\_sales

group by category;



**-- Q14 Get the Sales by hour**

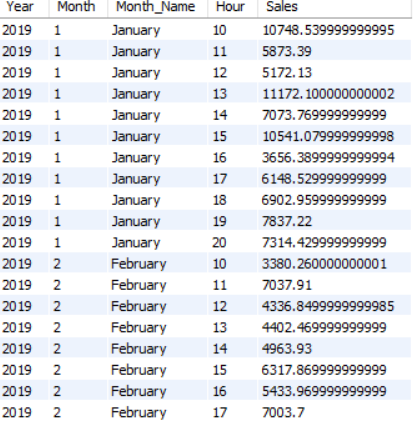
select year(date) as Year, month(date) as Month,

monthname(date) as Month\_Name ,hour(time) as Hour,

sum(sales) as Sales from walmart\_sales

group by year(date), month(date),monthname(date) ,hour(time)

order by year(date), month(date);



**-- Q15 Get the orders by hour**

select hour(time) as Hour, count(quantity) as Orders from walmart\_sales

group by hour(time)

order by hour(time);

