**COFFEE SHOP SALES PROJECT – MYSQL WORKBENCH**

The raw data (excel) is imported into SQL, leveraging order by, group by, alter, modify, count, sum, over for structured insights.

The database coffee is created.

The table ‘sql power bi project - coffee` is created and values are imported into the table.

This query describe `sql power bi project - coffee`; is used to retrive the key information about a table’s structure,

select \* from `sql power bi project - coffee` is used to view the entire table.

**SQL QUERIES:**

Create database coffee;

use coffee;

create table `sql power bi project - coffee`;

describe `sql power bi project - coffee`;

select \* from `sql power bi project - coffee`

**Update – to modify or change the existing records in a table, Convert date (transaction\_date) column into proper date format:**

update `sql power bi project - coffee`

Set transaction\_date = str\_to\_date (transaction\_date, '%d-%m-%Y');

**Alter date (transaction\_date) column to date data type:**

alter table `sql power bi project - coffee`

modify column transaction\_date date;

describe`sql power bi project - coffee`;

**Convert time (transaction\_time) column to proper time format:**

update `sql power bi project - coffee`

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

**Alter time (transaction\_time) column to proper time format:**

alter table `sql power bi project - coffee`

modify column transaction\_time time;

select \* from `sql power bi project - coffee`

**Change column name ï»¿transaction\_id TO transaction\_id:**

ALTER TABLE `sql power bi project - coffee`

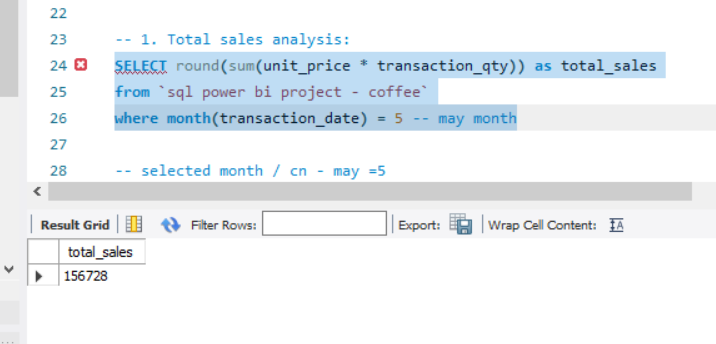
RENAME COLUMN ï»¿transaction\_id TO transaction\_id;

**Describe – Datatypes of different column:**

describe `sql power bi project - coffee`

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1. **Total Sales Analysis:**



**-- selected month / current month - may =5**

**-- previous month = april =4**

Select

month(transaction\_date) AS month, -- number of month

round(Sum(unit\_price \* transaction\_qty)) AS total\_sales, -- total sales column

(sum(unit\_price \* transaction\_qty) - lag(sum(unit\_price \* transaction\_qty), 1) -- month sales difference

over (Order by month(transaction\_date))) / lag(sum(unit\_price \* transaction\_qty), 1) -- division by previous sales

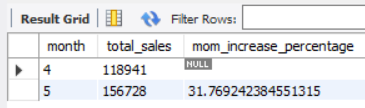
over (Order by month(transaction\_date)) \* 100 as mom\_increase\_percentage -- convert into percentage

from `sql power bi project - coffee`

where month(transaction\_date) in (4, 5) -- for months of April (pre) and May (curr)

group by month(transaction\_date)

order by month(transaction\_date);

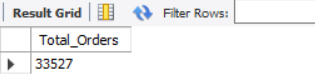


**2)Total orders analysis:**

select count(transaction\_id) as Total\_Orders

from `sql power bi project - coffee`

where month (transaction\_date)= 5 -- for month of (CM-May)



**-- month on month increase or decrease**

select

month(transaction\_date) as month,

round(count(transaction\_id)) as total\_orders,

(count(transaction\_id) - lag(count(transaction\_id), 1)

over (order by month(transaction\_date))) / lag(count(transaction\_id), 1)

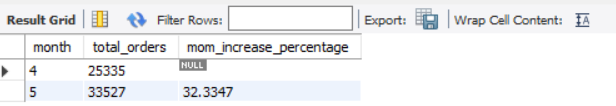
over (order by month(transaction\_date)) \* 100 as mom\_increase\_percentage

from `sql power bi project - coffee`

where month(transaction\_date) IN (4, 5) -- for April and May

group by month(transaction\_date)

order by month(transaction\_date);

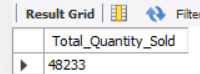


**3) Total quantity sold analysis:**

select sum(transaction\_qty) as Total\_Quantity\_Sold

from `sql power bi project - coffee`

where month(transaction\_date) = 5 -- for month of (CM-May)



**-- month on month incresae and difference:**

select month (transaction\_date) as month,

round(sum(transaction\_qty)) as total\_quantity\_sold,

(sum(transaction\_qty) - lag(sum(transaction\_qty), 1)

over (order by month(transaction\_date))) / lag(sum(transaction\_qty), 1)

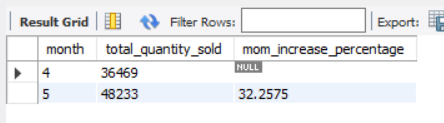
over (order by month(transaction\_date)) \* 100 as mom\_increase\_percentage

from `sql power bi project - coffee`

where month(transaction\_date) in (4, 5) -- for April and May

group by month(transaction\_date)

order by month(transaction\_date);



**4)Calender heat map:**

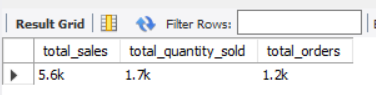
select concat(round(SUM(unit\_price \* transaction\_qty)/1000,1), 'k') as total\_sales,

concat(round(SUM(transaction\_qty)/1000,1), 'k') as total\_quantity\_sold,

concat(round(COUNT(transaction\_id)/1000,1), 'k') as total\_orders

from `sql power bi project - coffee`

where transaction\_date = '2023-05-18'; -- for 18 May 2023



**5)Sales analysis by weekdays and weekends:**

select

case when dayofweek(transaction\_date) in (1,7) then 'weekends'

else 'weekdays'

end as day\_type,

concat(round(sum(unit\_price \* transaction\_qty)/1000,1), 'k') as total\_sales

from `sql power bi project - coffee`

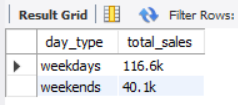
where month(transaction\_date) = 5 -- may month

group by

case when dayofweek(transaction\_date) in (1,7) then 'weekends'

else 'weekdays'

end



**6)Sales analysis by store location:**

SELECT store\_location,

concat(round(SUM(unit\_price \* transaction\_qty)/1000,1), 'k') as Total\_Sales

from `sql power bi project - coffee`

where month (transaction\_date) =5 -- may

group by store\_location

order by sum(unit\_price \* transaction\_qty) DESC



**7)Daily sales analysis with average line:**

select

concat(round(avg(total\_sales)/1000,1), 'k') as avg\_sales

from

(

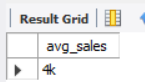
select sum(transaction\_qty \* unit\_price) as total\_sales

from `sql power bi project - coffee`

where month(transaction\_date)=4

group by transaction\_date

) as internal\_query



select

day(transaction\_date) as day\_of\_month,

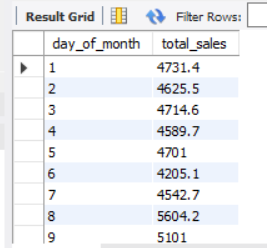
round(sum(unit\_price \* transaction\_qty),1) as total\_sales

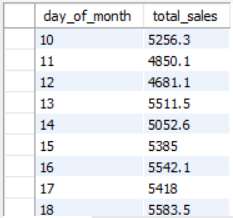
from `sql power bi project - coffee`

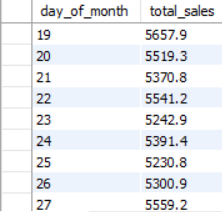
where month(transaction\_date) = 5 --filter for May

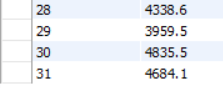
group by day(transaction\_date)

order by day(transaction\_date);









select day\_of\_month,

case

when total\_sales > avg\_sales then 'Above Average'

when total\_sales < avg\_sales then 'Below Average'

else 'equal to Average'

end as sales\_status,

total\_sales

from (

select

day(transaction\_date) as day\_of\_month,

sum(unit\_price \* transaction\_qty) as total\_sales,

avg(sum(unit\_price \* transaction\_qty)) over () as avg\_sales

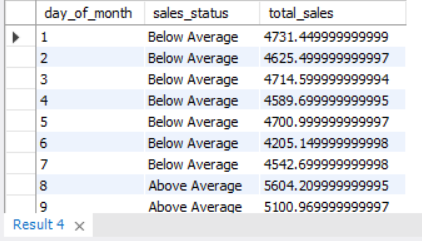
from `sql power bi project - coffee`

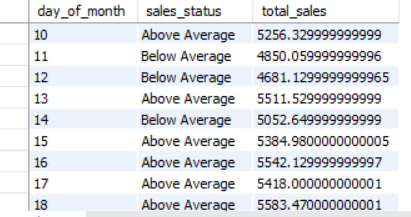
where month(transaction\_date) = 5 -- filter for May

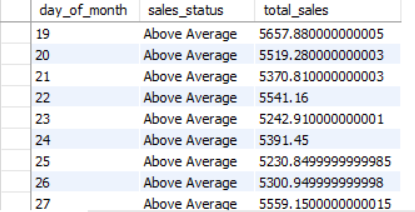
group by day(transaction\_date)

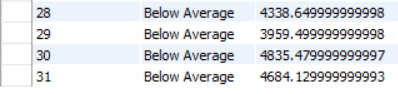
) as sales\_data

order by day\_of\_month;









**8) Sales by product category:**

select product\_category,

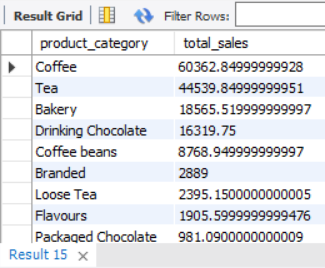
sum(unit\_price \* transaction\_qty) as total\_sales

from `sql power bi project - coffee`

where month(transaction\_date) = 5

group by product\_category

order by sum(unit\_price \* transaction\_qty)desc



**9)Top 10 products by sales:**

select product\_type, round(sum(unit\_price \* transaction\_qty),1) as Total\_Sales

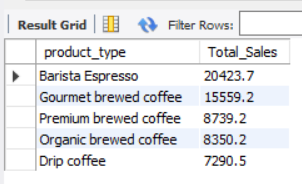
from `sql power bi project - coffee`

where month(transaction\_date) = 5 and product\_category = 'coffee'

group by product\_type

order by sum(unit\_price \* transaction\_qty) desc

limit 10



**10) Sales Analysis by days and hours:**

select

round(sum(unit\_price \* transaction\_qty)) as Total\_Sales,

sum(transaction\_qty) as Total\_Quantity,

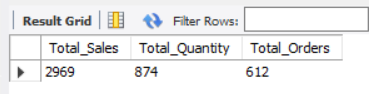
count(\*) as Total\_Orders

from `sql power bi project - coffee`

where dayofweek(transaction\_date) = 3 -- filter for Tuesday (1 is Sunday, 2 is Monday, ..., 7 is Saturday)

and hour(transaction\_time) = 8 -- filter for hour number 8

and month(transaction\_date) = 5; -- filter for May (month number 5)



**11) Hour of transaction time:**

select hour(transaction\_time),

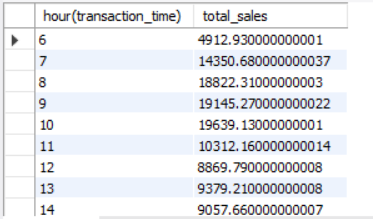
sum(unit\_price \* transaction\_qty) as total\_sales

from `sql power bi project - coffee`

where month(transaction\_date)=5

group by hour (transaction\_time)

order by hour(transaction\_time)





--**To get sales from Monday to Sunday for month of may:**

select

case

when dayofweek(transaction\_date) = 2 then 'Monday'

when dayofweek(transaction\_date) = 3 then 'Tuesday'

when dayofweek(transaction\_date) = 4 then 'Wednesday'

when dayofweek(transaction\_date) = 5 then 'Thursday'

when dayofweek(transaction\_date) = 6 then 'Friday'

when dayofweek(transaction\_date) = 7 then 'Saturday'

else 'Sunday'

end as Day\_of\_Week,

round(sum(unit\_price \* transaction\_qty)) as Total\_Sales

from `sql power bi project - coffee`

where month(transaction\_date) = 5 -- Filter for May (month number 5)

group by

case

when dayofweek(transaction\_date) = 2 then 'Monday'

when dayofweek(transaction\_date) = 3 then 'Tuesday'

when dayofweek(transaction\_date) = 4 then 'Wednesday'

when dayofweek(transaction\_date) = 5 then 'Thursday'

when dayofweek(transaction\_date) = 6 then 'Friday'

when dayofweek(transaction\_date) = 7 then 'Saturday'

else 'Sunday'

end;

