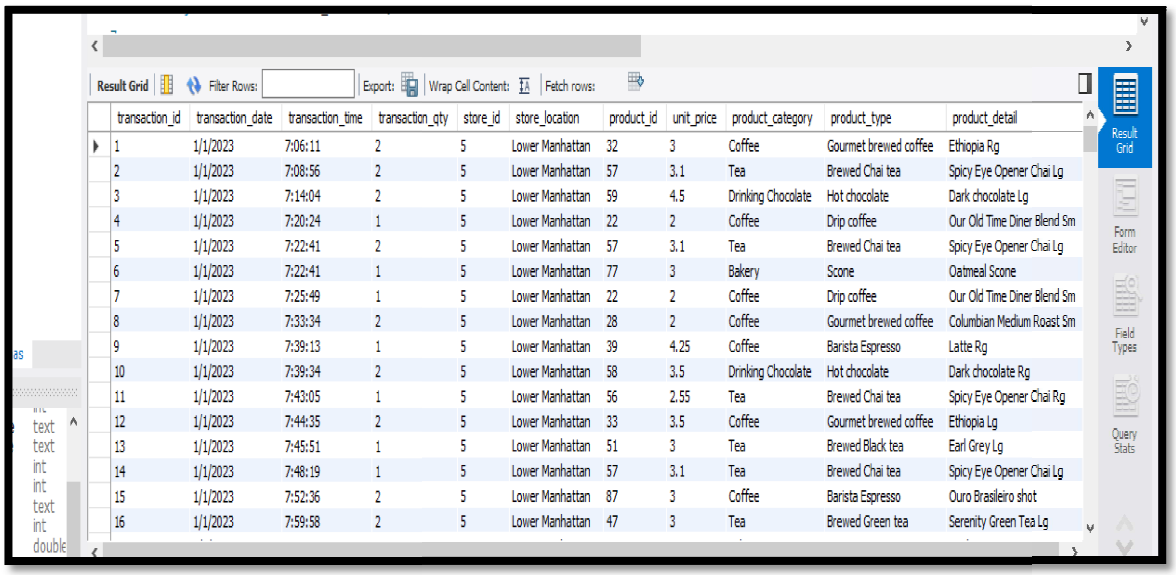
COFFEE SHOP SALES PROJECT

SQL QUERIES

DATA CLEANING

1Table

select * from coffee_shop_data;



transaction_id	transaction_date	transaction_time	transaction_qty	store_id	store_location	product_id	unit_price	product_category	product_type	product_detail
1	1/1/2023	7:06:11	2	5	Lower Manhattan	32	3	Coffee	Gourmet brewed coffee	Ethiopia Rg
2	1/1/2023	7:08:56	2	5	Lower Manhattan	57	3.1	Tea	Brewed Chai tea	Spicy Eye Opener Chai Lg
3	1/1/2023	7:14:04	2	5	Lower Manhattan	59	4.5	Drinking Chocolate	Hot chocolate	Dark chocolate Lg
4	1/1/2023	7:20:24	1	5	Lower Manhattan	22	2	Coffee	Drip coffee	Our Old Time Diner Blend Sm
5	1/1/2023	7:22:41	2	5	Lower Manhattan	57	3.1	Tea	Brewed Chai tea	Spicy Eye Opener Chai Lg
6	1/1/2023	7:22:41	1	5	Lower Manhattan	77	3	Bakery	Scone	Oatmeal Scone
7	1/1/2023	7:25:49	1	5	Lower Manhattan	22	2	Coffee	Drip coffee	Our Old Time Diner Blend Sm
8	1/1/2023	7:33:34	2	5	Lower Manhattan	28	2	Coffee	Gourmet brewed coffee	Columbian Medium Roast Sm
9	1/1/2023	7:39:13	1	5	Lower Manhattan	39	4.25	Coffee	Barista Espresso	Latte Rg
10	1/1/2023	7:39:34	2	5	Lower Manhattan	58	3.5	Drinking Chocolate	Hot chocolate	Dark chocolate Rg
11	1/1/2023	7:43:05	1	5	Lower Manhattan	56	2.55	Tea	Brewed Chai tea	Spicy Eye Opener Chai Rg
12	1/1/2023	7:44:35	2	5	Lower Manhattan	33	3.5	Coffee	Gourmet brewed coffee	Ethiopia Lg
13	1/1/2023	7:45:51	1	5	Lower Manhattan	51	3	Tea	Brewed Black tea	Earl Grey Lg
14	1/1/2023	7:48:19	1	5	Lower Manhattan	57	3.1	Tea	Brewed Chai tea	Spicy Eye Opener Chai Lg
15	1/1/2023	7:52:36	2	5	Lower Manhattan	87	3	Coffee	Barista Espresso	Ouro Brasileiro shot
16	1/1/2023	7:59:58	2	5	Lower Manhattan	47	3	Tea	Brewed Green tea	Serenity Green Tea Lg

2. 'Transaction_date' data type change from text to Date

UPDATE coffee_table

SET transaction_date = STR_TO_DATE(transaction_date, '%m/%d/%Y');

alter table coffee_table

modify transaction_date date;

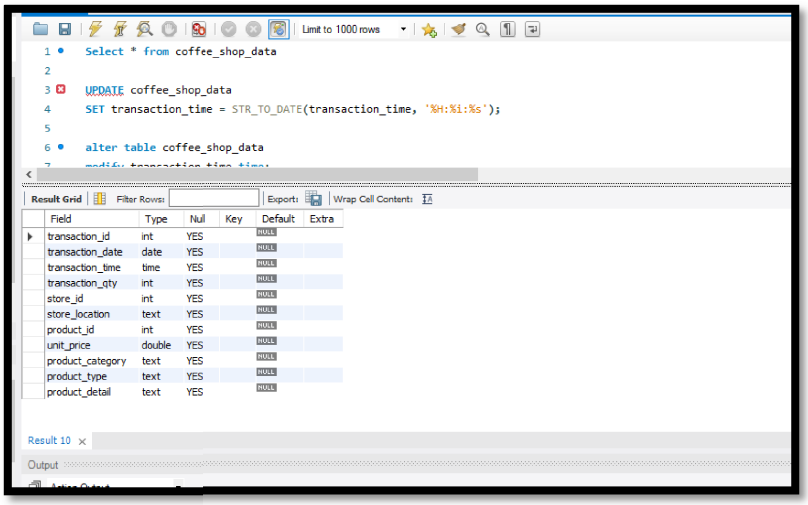
3.'Transaction_time' data type change from text to Time

UPDATE coffee_shop_data

SET transaction_time = STR_TO_DATE(transaction_time, '%H: %i: %s');

alter table coffee_shop_data

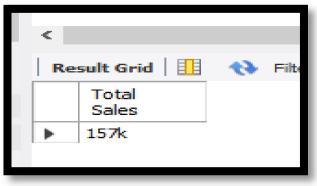
modify transaction_time time;



***Query Firing

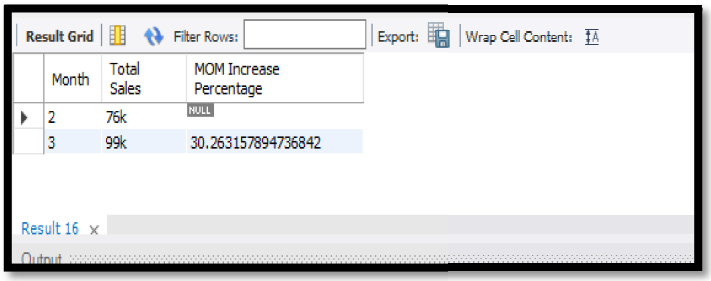
1. Total Sales by Month

```
select concat(round(sum(unit_price*transaction_qty)/1000,0),'k') AS 'Total Sales'

 from coffee_shop_data

 where

 month(transaction_date) = 5;
```



2. Month on month Sales percentage increase

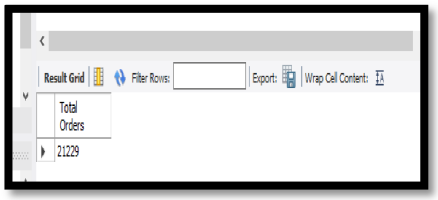
```
select month(transaction_date) as 'Month',

concat(round(sum(unit_price*transaction_qty)/1000,0),'k') AS 'Total Sales',

(concat(round(sum(unit_price*transaction_qty)/1000,0),'k')-
lag(concat(round(sum(unit_price*transaction_qty)/1000,0),'k'),1)

over( order by month(transaction_date)))/
(lag(concat(round(sum(unit_price*transaction_qty)/1000,0),'k'),1)

over( order by month(transaction_date)))*100
as 'MOM Increase Percentage'

 from coffee_shop_data

 where

 month(transaction_date) in (2,3)
```



```
group by Month(transaction_date)
order by month(transaction_date);
```

3.Total Orders by month

```
select count(transaction_id) AS 'Total Orders'
from coffee_shop_data
where
month(transaction_date) = 3;
```



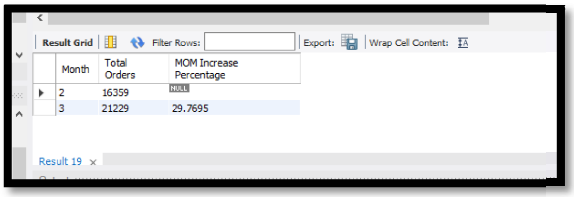
Total Orders
21229

4. Month on month orders percentage increase

```
select month(transaction_date) as 'Month',
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 coffee_shop_data
month(transaction_date) in (2,3)
group by Month(transaction_date)
order by month(transaction_date);
```

5. Total Quantity sold by Month

```
select sum(transaction_qty) AS 'Total Quantity Sold'
from coffee_shop_data
where
month(transaction_date) = 2;
```

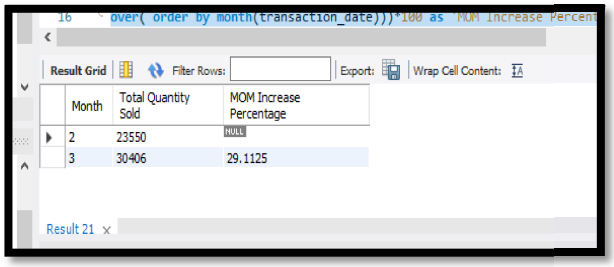


Month	Total Orders	MOM Increase Percentage
2	16359	NULL
3	21229	29.7695

6. Month on month Quantity sold percentage increase

```
select month(transaction_date) as 'Month',
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 coffee_shop_data
 where
 month(transaction_date) in (2,3)
 group by Month(transaction_date)
 order by month(transaction_date);
```



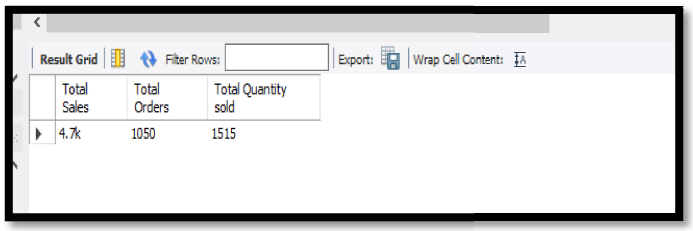
Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Month	Total Quantity Sold	MOM Increase Percentage
2	23550	NULL
3	30406	29.1125

Result 21

7. Total Sales,Total Orders,Total Quantity Sold by Date for the selected Month

```
select
concat(round(sum(unit_price * transaction_qty)/1000,1),'k') as 'Total Sales',
count(transaction_id) as 'Total Orders',
sum(transaction_qty) as 'Total Quantity sold'
from coffee_shop_data
where month(transaction_date) = 5
and date(transaction_date) = '2023-05-01';
```

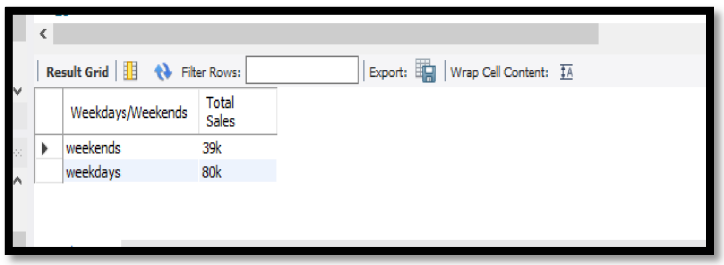


Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Total Sales	Total Orders	Total Quantity sold
4.7k	1050	1515

8. Sales on weekends and weekdays for selected month

```
Select
case when dayofweek(transaction_date) in (1,7) then 'weekends'
else 'weekdays'
end as 'Weekdays/Weekends',
Concat(round(sum(unit_price * transaction_qty)/1000,0),'k') as 'Total Sales'
from coffee_shop_data
where month(transaction_date) = 4
group by case when dayofweek(transaction_date) in (1,7) then 'weekends'
else 'weekdays'
end ;
```



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

Weekdays/Weekends	Total Sales
weekends	39k
weekdays	80k

9. Sales,Orders,Quantity sold for the selected Hour of the selected Day (week) of the selected Month

select

round(sum(unit_price * transaction_qty),1) as 'Total Sales',

count(transaction_id) as 'Total Orders',

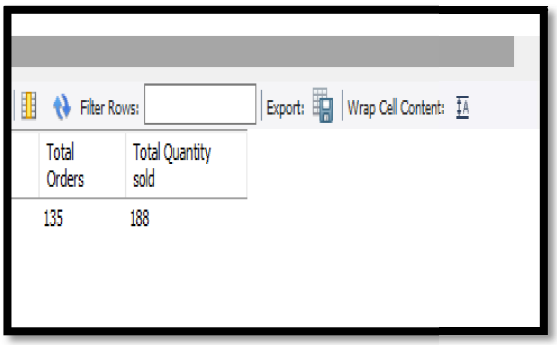
sum(transaction_qty) as 'Total Quantity sold'

from coffee_shop_data

where month(transaction_date) = 1

and dayofweek(transaction_date)=5

and hour(transaction_time) =14;



Filter Rows: Export: Wrap Cell Content:

Total Orders	Total Quantity sold
135	188

10. Total Sales by Hour for selected Month

select

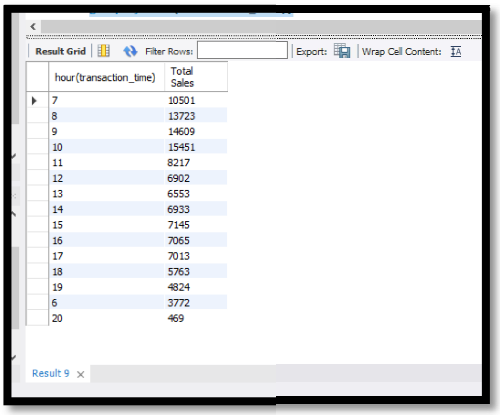
hour(transaction_transaction_time),

round(sum(unit_price * transaction_qty),0) as 'Total Sales'

from coffee_shop_data

Where month(transaction_date)=4

group by hour(transaction_transaction_time);



Result Grid Filter Rows: Export: Wrap Cell Content:

hour(transaction_time)	Total Sales
7	10501
8	13723
9	14609
10	15451
11	8217
12	6902
13	6553
14	6933
15	7145
16	7065
17	7013
18	5763
19	4824
6	3772
20	469

Result 9

11. Sales by Days of Week for the selected Month

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 WEEK_day,
round(sum(unit_price * transaction_qty),0) as 'Total Sales'
from coffee_shop_data
Where month(transaction_date)=4
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;
```

5 when dayofweek(transaction_dat

Result Grid | Filter Rows:

WEEK_day	Total Sales
Saturday	19310
Sunday	20039
Monday	16423
Tuesday	15789
Wednesday	16471
Thursday	15717
Friday	15193

12. Sales by Store Locations for selected Month

```
select store_location,
concat(Round(sum(unit_price * transaction_qty)/1000,2),'k') as 'Total Sales'
from coffee_shop_data
where Month(transaction_date)=6
group by store_location;
```

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

store_location	Total Sales
Lower Manhattan	54.45k
Hell's Kitchen	56.96k
Astoria	55.08k

13.Sales By Product category for the selected Month

```
select product_category,
Round(sum(unit_price * transaction_qty),2) as 'Total Sales'
from coffee_shop_data
where Month(transaction_date)=5
group by product_category
```

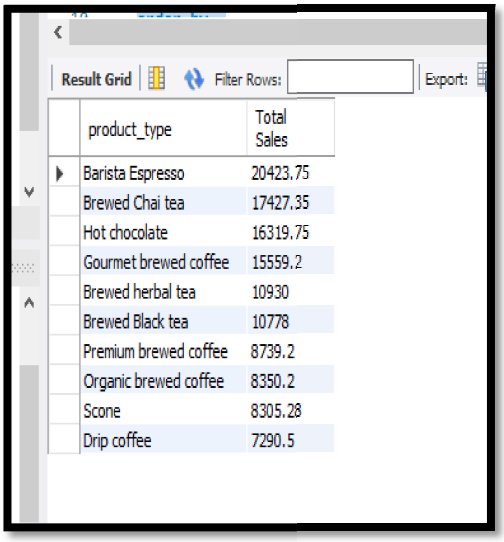
Result Grid | Filter Rows: | Export:

product_category	Total Sales
Coffee	60362.85
Tea	44539.85
Bakery	18565.52
Drinking Chocolate	16319.75
Coffee beans	8768.95
Branded	2889
Loose Tea	2395.15
Flavours	1905.6
Packaged Chocolate	981.09

```
order by
Round(sum(unit_price * transaction_qty),2)
 desc;
```

14. Sales By Top 10 Product Type for the selected Month

```
select product_type,
Round(sum(unit_price * transaction_qty),2) as 'Total Sales'
from coffee_shop_data
where Month(transaction_date)=5
group by product_type
order by
Round(sum(unit_price * transaction_qty),2)
 desc
 limit 10;
```



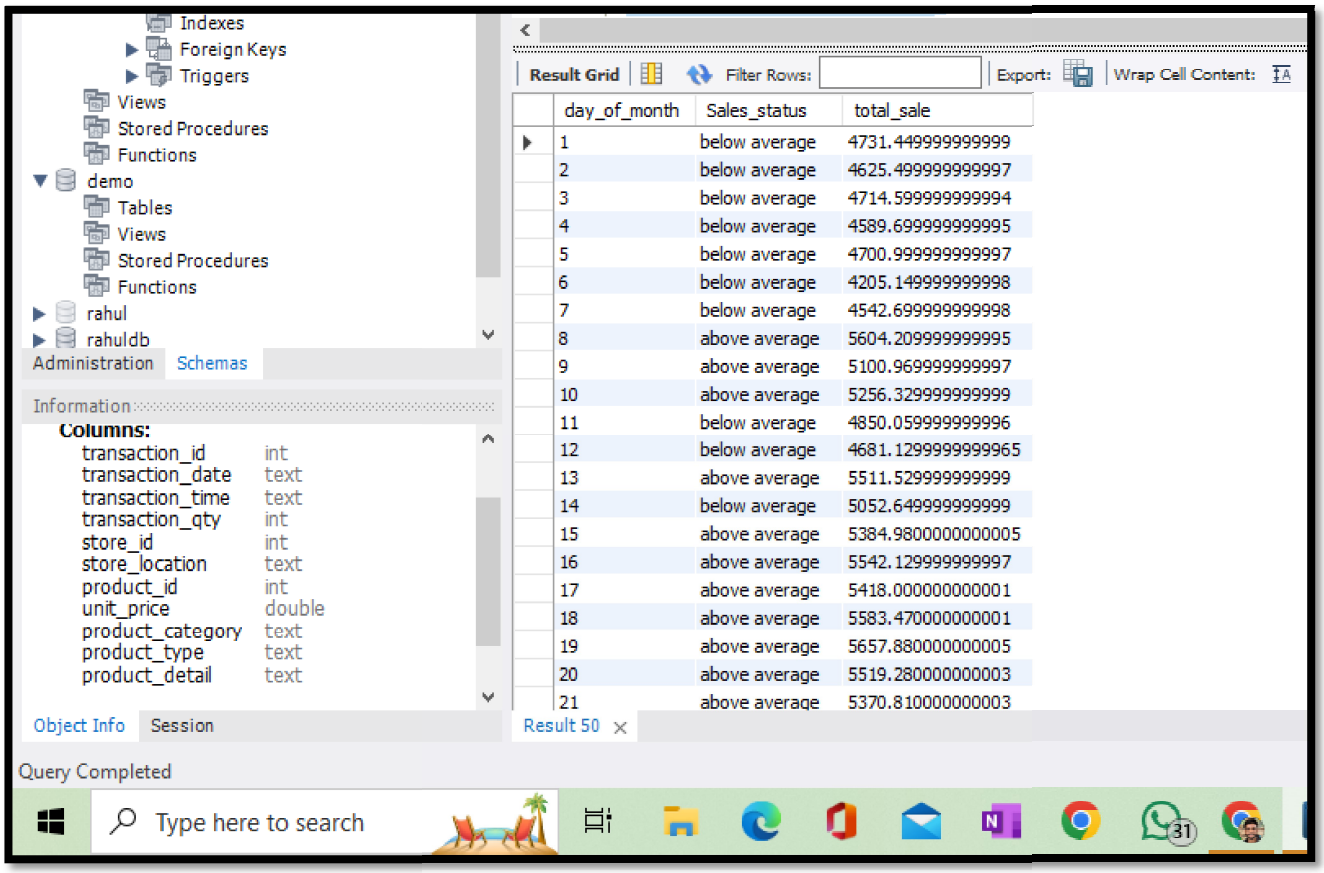
Result Grid | Filter Rows: | Export:

product_type	Total Sales
Barista Espresso	20423.75
Brewed Chai tea	17427.35
Hot chocolate	16319.75
Gourmet brewed coffee	15559.2
Brewed herbal tea	10930
Brewed Black tea	10778
Premium brewed coffee	8739.2
Organic brewed coffee	8350.2
Scone	8305.28
Drip coffee	7290.5

15. Total sales per day for the selected Month and identify which are below average or above average.

```
select day_of_month,
case
            when total_sale>avg_sale then 'above average'
   when total_sale<avg_sale then 'below average'
   else 'equal to average'
   end as 'Sales_status',
total_sale
from
( select day(transaction_date) as day_of_month,
            sum(unit_price * transaction_qty) as 'total_sale',
            Avg(sum(unit_price * transaction_qty)) over() as 'avg_sale'
   from coffee_shop_data
   where month(transaction_date) = 5
```

```
group by
day(transaction_date)
) as Sales_data

order by day_of_month;
```



day_of_month	Sales_status	total_sale
1	below average	4731.449999999999
2	below average	4625.499999999997
3	below average	4714.599999999994
4	below average	4589.699999999995
5	below average	4700.999999999997
6	below average	4205.149999999998
7	below average	4542.699999999998
8	above average	5604.209999999995
9	above average	5100.969999999997
10	above average	5256.329999999999
11	below average	4850.059999999996
12	below average	4681.1299999999965
13	above average	5511.529999999999
14	below average	5052.649999999999
15	above average	5384.9800000000005
16	above average	5542.129999999997
17	above average	5418.000000000001
18	above average	5583.470000000001
19	above average	5657.880000000005
20	above average	5519.280000000003
21	above average	5370.810000000003

Thank You