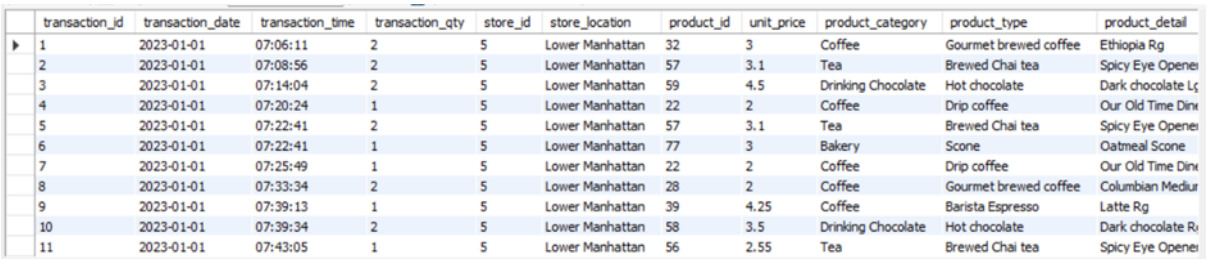
SQL Project Using Coffee Dataset

Data Set-

- select * from coffee_data.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	2023-01-01	07:06:11	2	5	Lower Manhattan	32	3	Coffee	Gourmet brewed coffee	Ethiopia Rg
2	2023-01-01	07:08:56	2	5	Lower Manhattan	57	3.1	Tea	Brewed Chai tea	Spicy Eye Opener
3	2023-01-01	07:14:04	2	5	Lower Manhattan	59	4.5	Drinking Chocolate	Hot chocolate	Dark chocolate Lg
4	2023-01-01	07:20:24	1	5	Lower Manhattan	22	2	Coffee	Drip coffee	Our Old Time Din
5	2023-01-01	07:22:41	2	5	Lower Manhattan	57	3.1	Tea	Brewed Chai tea	Spicy Eye Opener
6	2023-01-01	07:22:41	1	5	Lower Manhattan	77	3	Bakery	Scone	Oatmeal Scone
7	2023-01-01	07:25:49	1	5	Lower Manhattan	22	2	Coffee	Drip coffee	Our Old Time Din
8	2023-01-01	07:33:34	2	5	Lower Manhattan	28	2	Coffee	Gourmet brewed coffee	Columbian Mediur
9	2023-01-01	07:39:13	1	5	Lower Manhattan	39	4.25	Coffee	Barista Espresso	Latte Rg
10	2023-01-01	07:39:34	2	5	Lower Manhattan	58	3.5	Drinking Chocolate	Hot chocolate	Dark chocolate R
11	2023-01-01	07:43:05	1	5	Lower Manhattan	56	2.55	Tea	Brewed Chai tea	Spicy Eye Opener

- . Changing Data Type of transaction_date

```
update coffee_data.coffee_shop_data
set transaction_date = str_to_date(transaction_date,'%d-%m-%Y')
```

- Changing the date column data type to date

```
alter table coffee_data.coffee_shop_data
modify column  transaction_date date;
```

- Changing the time data type .

```
alter table coffee_data.coffee_shop_data
modify column  transaction_time time;
```

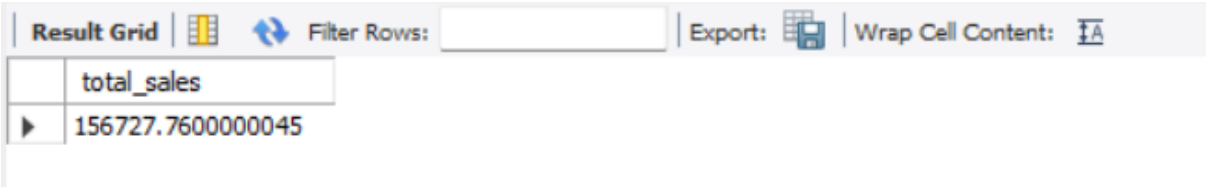
- Changing the name of the column

```
alter table coffee_data.coffee_shop_data
change column ï»¿transaction_id transaction_id int
```

- Calculating total sales month wise

```
select sum(transaction_qty*unit_price) as 'total_sales'
```

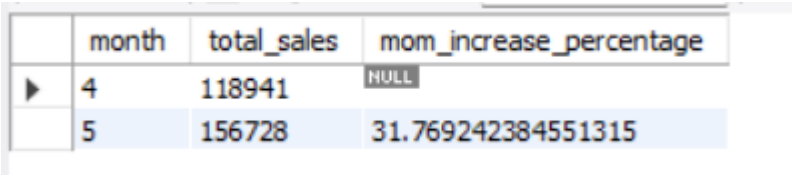
```
from coffee_data.coffee_shop_data

where

month (transaction_date) = 5 -- may month
```



total_sales
156727.7600000045

- Month-on-Month (MoM) growth measures the percentage change in a value from one month to the next.

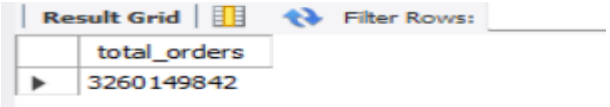
```
select

        month(transaction_date) as 'month',  round(sum(transaction_qty*unit_price)) AS 'total_sales',

   (sum(transaction_qty*unit_price)-lag(sum(transaction_qty*unit_price),1)

   over(order by month(transaction_date))) /lag(sum(transaction_qty*unit_price),1)

   over (order by month(transaction_date)) *100  as 'mom_increase_percentage'


   from coffee_data.coffee_shop_data

   where month(transaction_date) in(4,5)

   group by month(transaction_date)

   order by month(transaction_date)
```



month	total_sales	mom_increase_percentage
4	118941	NULL
5	156728	31.769242384551315

- Total orders per month

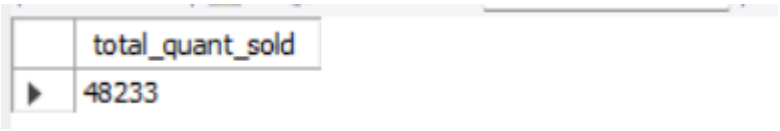
```
select sum(transaction_id) as total_orders from coffee_data.coffee_shop_data

where  month(transaction_date) = 5
```



total_orders
3260149842

- Total quantity sold that month

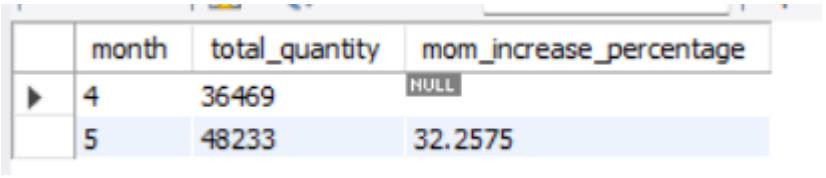
```
select sum(transaction_qty)  as total_quant_sold from  coffee_data.coffee_shop_data
where month(transaction_date) = 5
```



total_quant_sold
48233

- Month-on-Month (MoM) growth for total transaction quantity per month

```
select
        month(transaction_date) as 'month',  round(sum(transaction_qty)) AS 'total_quantity',
                (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_data.coffee_shop_data
                where month(transaction_date) in(4,5)
                group by month(transaction_date)
                order by month(transaction_date)
```



month	total_quantity	mom_increase_percentage
4	36469	NULL
5	48233	32.2575

- Total order, Total sales and Total amount sold on a particular day

```
select
                concat(round(sum(unit_price)/1000,1),'K') as total_amount ,
                concat(round(sum(transaction_qty*unit_price)/1000,1),'K') as total_sales,
                concat(round(count(transaction_id)/1000,1),'K')as total_order
from coffee_data.coffee_shop_data
where
                transaction_date = '2023-3-27'
```

	total_amount	total_sales	total_order
▶	2.5K	3.7K	0.8K

- Total sales in a particular month based on weekday and weekends

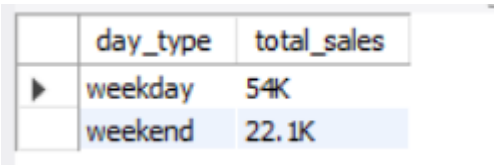
```
select
	case
		when dayofweek(transaction_date) in (1,7) then 'weekend'
    else 'weekday'
    end as day_type,
	concat(round(sum(transaction_qty*unit_price)/1000,1),'K') as total_sales
from coffee_data.coffee_shop_data
	where
		month(transaction_date) = 2
	group by
		case
			when dayofweek(transaction_date) in (1,7) then 'weekend'
			else 'weekday'
			end
```

	day_type	total_sales
▶	weekday	54K
	weekend	22.1K

- Calculate total sales based on the store location

```
select
	store_location,
	concat(round(sum(transaction_qty*unit_price)/1000,1),'K') as total_sales
from coffee_data.coffee_shop_data
```

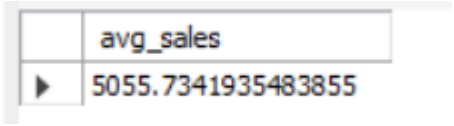
```
where
        month(transaction_date)  = 2
group by store_location
order by concat(round(sum(transaction_qty*unit_price)/1000,1),'K') desc
```



day_type	total_sales
weekday	54K
weekend	22.1K

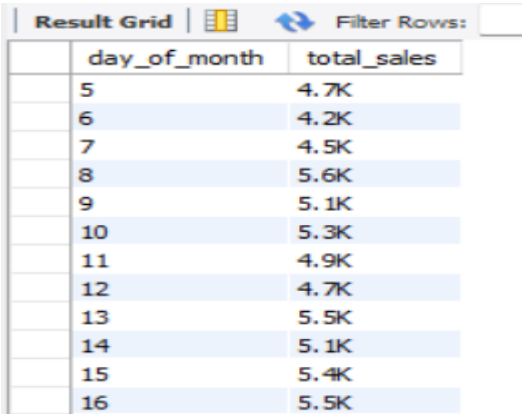
- Finding the trend between sales per day over avg sales over month

```
select
        avg(total_sales) AS avg_sales
        from(select sum(transaction_qty*unit_price) as total_sales
                from coffee_data.coffee_shop_data
    where month(transaction_date)  = 5
    group by transaction_date) as internal_query
```



avg_sales
5055.7341935483855

```
select
        day(transaction_date) as day_of_month,
        concat(round(sum(transaction_qty*unit_price)/1000,1),'K') as total_sales
from
        coffee_data.coffee_shop_data
where
        month(transaction_date) = 5
group by  day(transaction_date)
```



Result Grid | Filter Rows:

day_of_month	total_sales
5	4.7K
6	4.2K
7	4.5K
8	5.6K
9	5.1K
10	5.3K
11	4.9K
12	4.7K
13	5.5K
14	5.1K
15	5.4K
16	5.5K

- Categorizing if the daily sales are below or above average for the monthly sales

```
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(transaction_qty*unit_price) as total_sales,
      avg(sum(transaction_qty*unit_price)) over () as avg_sales
        from
                coffee_data.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_sales
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

- Analyse sales performance across different categories

```
select
        product_category ,
        concat(round(sum(transaction_qty*unit_price)/1000,1),'K') as total_sales
from
        coffee_data.coffee_shop_data
where
        month(transaction_date) = 5
group by
        product_category

order by
        concat(round(sum(transaction_qty*unit_price)/1000,1),'K') desc
```

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

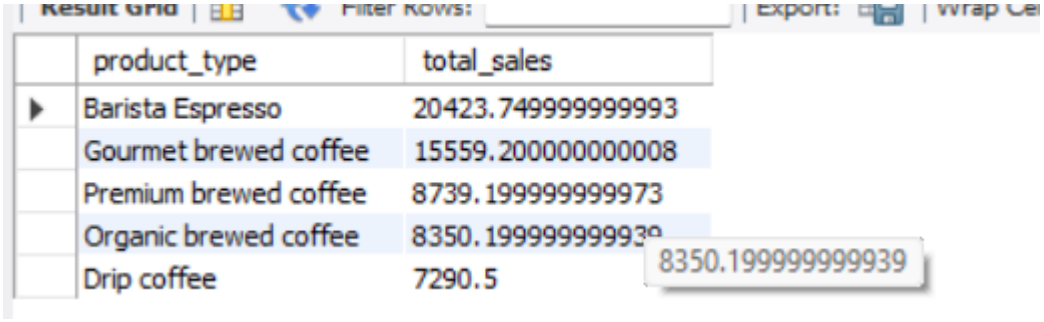
product_category	total_sales
Coffee beans	8.8K
Coffee	60.4K
Tea	44.5K
Branded	2.9K
Loose Tea	2.4K
Packaged Chocolate	1K
Bakery	18.6K
Drinking Chocolate	16.3K
Flavours	1.9K

2.4K

- Top 10 products of selected category

```
select
        product_type ,
        sum(transaction_qty*unit_price) as total_sales
from
        coffee_data.coffee_shop_data
where
        month(transaction_date) = 5 and product_category = 'Coffee'
```

```
group by
        product_type
order by sum(transaction_qty*unit_price) desc limit 10
```



product_type	total_sales
Barista Espresso	20423.749999999993
Gourmet brewed coffee	15559.200000000008
Premium brewed coffee	8739.199999999973
Organic brewed coffee	8350.199999999939
Drip coffee	7290.5