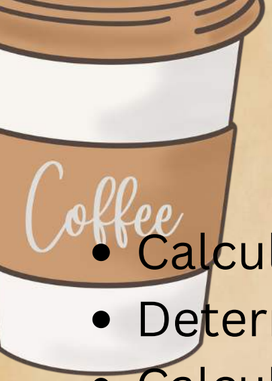

MySQL
Coffe Shop Sales



Questions

- Calculate the total sales for each respective month
- Determine the month-on-month increase or decrease in sales.
- Calculate the total number of orders for each respective month.
- Determine the month-on-month increase or decrease in the number of orders
- Calculate the total quantity sold for each respective month.
- Calculate the difference in the total quantity sold between the selected month and the previous month.
- Daily Sales, Quantity and Total Orders
- Sales trend over Period
- Daily sales for month selected
- Comparing Daily Sales With Average Sales – If Greater Than “Above Average” And Lesser Than “Below Average”
- Sales By Weekday / Weekend
- Sales By Store Location
- Sales By Product Category
- Sales By Products (Top 10)
- Sales By Day | Hour
- Sales From Monday To Sunday For Month Of May
- Sales For All Hours For Month Of May

Calculate the total sales for each respective month.

```sql
SELECT
    ROUND(SUM(unit_price * transaction_qty), 1) AS Total_Sales
FROM
    coffee_shop_sales
WHERE
    MONTH(transaction_date) = 3;
```

	Total_Sales
▶	98834.7

Determine the month-on-month increase or decrease in sales.

```sql
select
month(transaction_date) as month,
round(sum(unit_price * transaction_qty)) as total_Sales,
(sum(unit_price * transaction_qty) - lag(sum(unit_price * transaction_qty),1)
over (order by month(transaction_date))) / lag(sum(unit_price * transaction_qty),1)
over (order by month (transaction_date)) * 100 as mm_percentage
from coffee_Shop_Sales
where month(transaction_date) in (4,5)
group by month(transaction_date)
order by month(transaction_date)
```

	month	total_Sales	mm_percentage
▶	4	118941	NULL
	5	156728	31.769242384551315

Calculate the total number of orders for each respective month.

```
SELECT
    COUNT(transaction_id)
FROM
    coffee_shop_sales
WHERE
    MONTH(transaction_date) IN (3);
```

count(transaction_id)
21229

Determine the month-on-month increase or decrease in the number of orders

```
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 mm_percentage
from coffee_Shop_sales
where month(transaction_date) in (4,5)
group by month(transaction_date)
order by month(transaction_date);
```

month	total_orders	mm_percentage
4	25335	NULL
5	33527	32.3347

Calculate the total quantity sold for each respective month.

```sql
SELECT
    SUM(transaction_qty) AS sales
FROM
    coffee_shop_sales
WHERE
    MONTH(transaction_date) = 5;
```

sales
48233

Calculate the difference in the total quantity sold between the selected month and the previous month.

```sql
select
month(transaction_date) as month,
round(sum(transaction_qty)) as total_qty_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 mm_percentage
from coffee_Shop_sales
where month(transaction_date) in (4,5)
group by month(transaction_date)
order by month(transaction_date);
```

month	total_qty_sold	mm_percentage
4	36469	NULL
5	48233	32.2575

Daily Sales, Quantity and Total Orders

```sql
SELECT
    CONCAT(ROUND(SUM(unit_price * transaction_qty) / 1000,
                1),
            'k') AS total_sales,
    CONCAT(ROUND(SUM(transaction_qty) / 1000, 1),
            'k') AS total_qty_sold,
    CONCAT(ROUND(COUNT(transaction_id) / 1000, 1),
            'k') AS total_orders
FROM
    coffee_shop_Sales
WHERE
    transaction_date = '2023-05-18';
```

total_sales	total_qty_sold	total_orders
5.6k	1.7k	1.2k

Sales Trend Over Period

```
   SELECT AVG(total_sales) AS average_sales
from (
    SELECT
        SUM(unit_price * transaction_qty) AS total_sales
    FROM
        coffee_shop_sales
    WHERE
        MONTH(transaction_date) = 5
    GROUP BY
        transaction_date
) AS internal_query;
```

average_sales
5055.7341935483855

Daily sales for month selected

```sql
SELECT
    DAY(transaction_date) AS day_of_month,
    ROUND(SUM(unit_price * transaction_qty), 1) AS total_Sales
FROM
    coffee_shop_Sales
WHERE
    MONTH(transaction_date) = 5
GROUP BY day_of_month
ORDER BY day_of_month;
```

day_of_month	total_Sales
1	4731.4
2	4625.5
3	4714.6
4	4589.7
5	4701
6	4205.1
7	4542.7
8	5604.2
9	5101
10	5256.3
11	4850.1
12	4681.1
13	5511.5
14	5052.6
15	5385
16	5542.1
17	5418
18	5583.5
19	5657.9
20	5519.3
21	5370.8
22	5541.2
23	5242.9
24	5391.4
25	5230.8
26	5300.9
27	5559.2
28	4338.6
29	3959.5
30	4835.5
31	4684.1

Comparing Daily Sales With Average Sales – If Greater Than "Above Average" And Lesser Than "Below Average"

```sql
SELECT
    day_of_month,
    CASE
        WHEN total_sales > avg_sales THEN 'Above Average'
        WHEN total_sales < avg_sales THEN 'Below Average'
        ELSE 'Average' END AS sales_status, total_sales
FROM (SELECT DAY(transaction_date) AS day_of_month,round(SUM(unit_price * transaction_qty),1) AS total_sales,
        AVG(SUM(unit_price * transaction_qty)) OVER () AS avg_sales FROM coffee_shop_sales 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	4731.4
2	Below Average	4625.5
3	Below Average	4714.6
4	Below Average	4589.7
5	Below Average	4701
6	Below Average	4205.1
7	Below Average	4542.7
8	Above Average	5604.2
9	Above Average	5101
10	Above Average	5256.3
11	Below Average	4850.1
12	Below Average	4681.1
13	Above Average	5511.5
14	Below Average	5052.6
15	Above Average	5385
16	Above Average	5542.1
17	Above Average	5418
18	Above Average	5583.5
19	Above Average	5657.9
20	Above Average	5519.3
21	Above Average	5370.8
22	Above Average	5541.2
23	Above Average	5242.9
24	Above Average	5391.4
25	Above Average	5230.8
26	Above Average	5300.9
27	Above Average	5559.2
28	Below Average	4338.6
29	Below Average	3959.5
30	Below Average	4835.5
31	Below Average	4684.1

Sales By Weekday / Weekend

```
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 coffee_shop_sales
where month(transaction_date) = 5
group by case when
dayofweek(transaction_date) in(1,7) then 'WEEKENDS'
else 'WEEKDAYS' end;
```

day_type	total_Sales
WEEKDAYS	116.6k
WEEKENDS	40.1k

Sales By Store Location

```sql
SELECT
    store_location,
    CONCAT(ROUND(SUM(unit_price * transaction_qty) / 1000,
                1),
            'k') AS month_sales
FROM
    coffee_shop_Sales
WHERE
    MONTH(transaction_Date) = 5
GROUP BY store_location
ORDER BY month_Sales DESC;
```

store_location	month_sales
Hell's Kitchen	52.6k
Astoria	52.4k
Lower Manhattan	51.7k

Sales By Product Category

```sql
SELECT
    product_category,
    SUM(unit_price * transaction_qty) AS total_sales
FROM
    coffee_shop_sales
WHERE
    MONTH(transaction_date) = 5
GROUP BY product_category;
```

product_category	total_sales
Coffee	60362.84999999928
Drinking Chocolate	16319.75
Tea	44539.84999999951
Bakery	18565.519999999997
Packaged Chocolate	981.0900000000009
Loose Tea	2395.1500000000005
Flavours	1905.5999999999476
Coffee beans	8768.949999999997

Sales By Products (Top 10)

```sql
select product_type,
sum(unit_price * transaction_qty ) as total_Sales
from coffee_shop_sales
where month(transaction_date) = 5
group by product_type
order by total_Sales desc limit 10;
```

product_type	total_Sales
Barista Espresso	20423.749999999993
Brewed Chai tea	17427.350000000082
Hot chocolate	16319.75
Gourmet brewed coffee	15559.200000000008
Brewed herbal tea	10930
Brewed Black tea	10778
Premium brewed coffee	8739.199999999973
Organic brewed coffee	8350.199999999939
Scone	8305.2799999999
Drip coffee	7290.5

Sales By Day | Hour

```sql
select
Round(sum(unit_price * transaction_qty )) as total_Sales,
sum(transaction_qty) as total_sold,
count(*) as total_orders
from coffee_shop_Sales
where month(transaction_date) = 5
and dayofweek(transaction_date) = 3
and hour(transaction_time) = 8;
```

total_Sales	total_sold	total_orders
2969	874	612

Sales From Monday To Sunday For Month Of May

```sql
 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 coffee_shop_sales  where month(transaction_date) = 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;
```

day_of_week	total_Sales
Monday	25221
Tuesday	25347
Wednesday	25465
Thursday	20254
Friday	20341
Saturday	20795
Sunday	19305

Sales For All Hours For Month Of May

```sql
select
hour(transaction_time) as hr_time,
sum(unit_price * transaction_qty) as total_Sales
from coffee_shop_sales
where month(transaction_date) = 5
group by hr_time
order by hr_time;
```

hr_time	total_Sales
6	4912.930000000001
7	14350.680000000037
8	18822.31000000003
9	19145.270000000022
10	19639.13000000001
11	10312.160000000014
12	8869.790000000008
13	9379.210000000008
14	9057.660000000007
15	9525.15000000002
16	9154.310000000012
17	8966.850000000013
18	7679.909999999997
19	6256.469999999997
20	655.9300000000002