COFFEE SHOP SALES ANALYSIS

USING MYSQL

TOTAL SALES ANALYSIS

- Total sales of all months

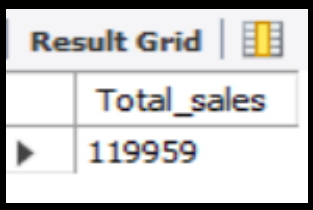
```
SELECT
   ROUND(SUM(transaction_qty * unit_price)) AS Total_sales
FROM
   coffee_shop_sales;
```

Result Grid

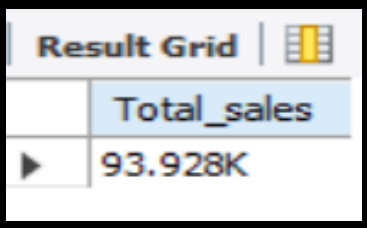
	Total_sales
▶	698812

- Total sales for a particular month

```
SELECT
   ROUND(SUM(transaction_qty * unit_price)) AS Total_sales
FROM
   coffee_shop_sales
WHERE
  MONTH(transaction_date) = 5 ;          -- for May
```




```
SELECT
   CONCAT(ROUND(SUM(transaction_qty * unit_price))/1000, "K") AS Total_sales
FROM
   coffee_shop_sales
WHERE
  MONTH(transaction_date) = 4 ;          -- for April
```



- To find difference between the Current Month (CM) and the Previous Month (PM)

```
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_shop_sales
WHERE
```

```
    MONTH(transaction_date) IN (4,5)
GROUP BY
    MONTH(transaction_date)
ORDER BY
     MONTH(transaction_date);
```

Result Grid | Filter Rows:

month	Total_sales	MOM_increase_percentage
4	93928	NULL
5	119959	27.713486773640174

TOTAL ORDER ANALYSIS

- *Total order of all* months

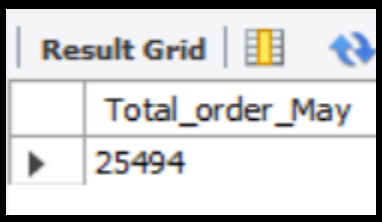
```
SELECT
  COUNT(transaction_id) AS Total_orders
FROM
   coffee_shop_sales;
```

Result Grid

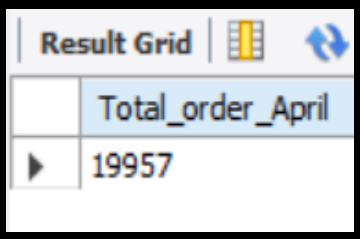
Total_orders
149116

- Total order for a particular month

```
SELECT
  COUNT(transaction_id) AS Total_order_May
FROM
 coffee_shop_sales
WHERE
  MONTH(transaction_date) = 5 ;          -- for May
```



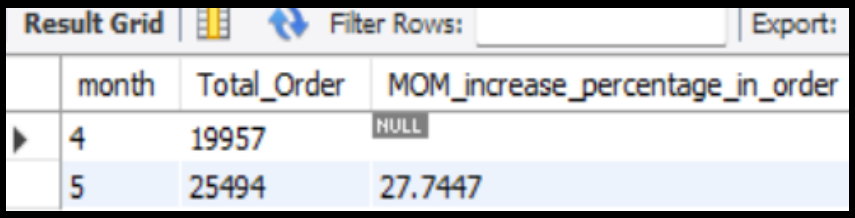

```
SELECT
   COUNT(transaction_id) AS Total_order_April
FROM
   coffee_shop_sales
WHERE
  MONTH(transaction_date) = 4 ;          -- for April
```



- To find difference between the Current Month (CM) and the Previous Month (PM) Sales

```
SELECT
MONTH(transaction_date) AS month,
COUNT(transaction_id) AS Total_Order,
(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_in_order
FROM
    coffee_shop_sales
WHERE
```

```
    MONTH(transaction_date) IN (4,5)
GROUP BY
    MONTH(transaction_date)
ORDER BY
     MONTH(transaction_date);
```

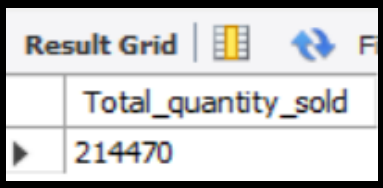


month	Total_Order	MOM_increase_percentage_in_order
4	19957	NULL
5	25494	27.7447

TOTAL QUANTITY SOLD ANALYSIS

- *Total order of all months*

```
SELECT
  SUM(transaction_qty) AS Total_quantity_sold
FROM
   coffee_shop_sales;
```

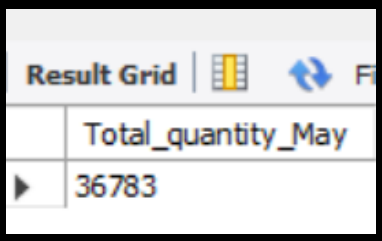


Total_quantity_sold
214470

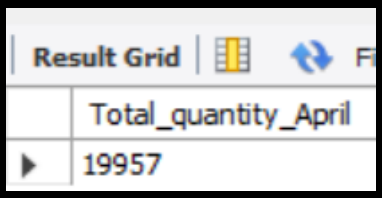
- Total quantity sold for a particular month

```
SELECT
   SUM(transaction_qty) AS Total_quantity_May
FROM
   coffee_shop_sales
WHERE
```

```
  MONTH(transaction_date) = 5 ;         -- for May
```



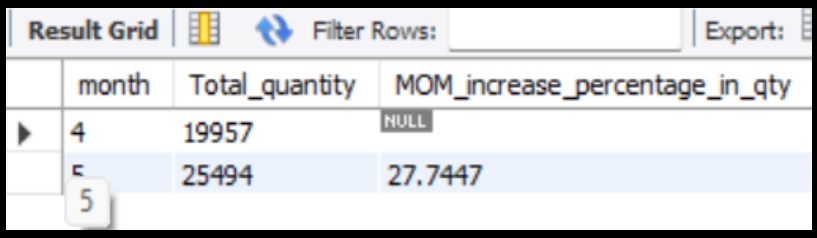

```
SELECT
   COUNT(transaction_id) AS Total_quantity_April
FROM
   coffee_shop_sales
WHERE
  MONTH(transaction_date) = 4 ;         -- for April
```



- To find difference between the Current Month (CM) and the Previous Month (PM) quantity sold

```
SELECT
MONTH(transaction_date) AS month,
COUNT(transaction_qty) AS Total_quantity,
(COUNT(transaction_qty) - LAG(COUNT(transaction_qty),1)
OVER (ORDER BY MONTH(transaction_date))) / LAG(COUNT(transaction_qty),1)
OVER (ORDER BY MONTH(transaction_date)) *100 AS MOM_increase_percentage_in_qty
FROM
    coffee_shop_sales
```

```
WHERE
    MONTH(transaction_date) IN (4,5)
GROUP BY
    MONTH(transaction_date)
ORDER BY
     MONTH(transaction_date);
```

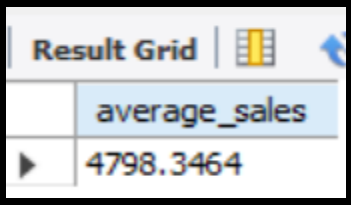


Result Grid | Filter Rows: | Export:

month	Total_quantity	MOM_increase_percentage_in_qty
4	19957	NULL
5	25494	27.7447

Average Sales for a particular Month

```
          T 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  -- Filter for May
  GROUP BY
    transaction_date ) as query;
```



Result Grid

average_sales
4798.3464

- Comparing daily Sales with Average Sales – If Greater than “Above Average” and Lessor than “Below Average”.

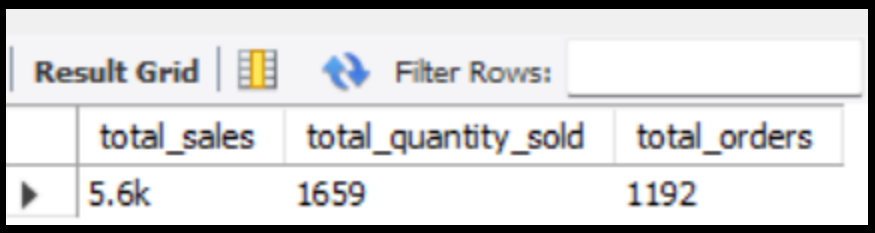
```
SELECT
day_of_month,
  CASE
    WHEN total_sales > avg_sales THEN 'Above Average'
    WHEN total_sales < avg_sales THEN 'Below Average'
    ELSE 'Average'
  END AS sales_status,
  total_sales
FROM (
  SELECT
    DAY(transaction_date) AS day_of_month,
    SUM(unit_price * transaction_qty) AS total_sales,
    AVG(SUM(unit_price * transaction_qty)) OVER () AS avg_sales
  FROM
    coffee_shop_sales
  WHERE
    MONTH(transaction_date) = 5  -- Filter for May
  GROUP BY
    DAY(transaction_date)
) AS sales_data
ORDER BY
        day_of_month;
```

Result Grid | Filter Rows: | Export:

day_of_month	sales_status	total_sales
1	Below Average	2418.8500000000004
2	Below Average	2304.7000000000003
3	Below Average	2945.3000000000006
4	Below Average	3552.7
5	Below Average	4700.999999999997
6	Above Average	4911.149999999995
13	Above Average	5511.529999999999
14	Above 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
22	Above Average	5541.16
23	Above Average	5242.910000000001
24	Above Average	5391.45
25	Above Average	5230.8499999999985
26	Above Average	5300.949999999998
27	Above Average	5559.1500000000015
28	Below Average	4338.649999999998
29	Below Average	3959.499999999998
30	Above Average	4835.479999999997
31	Below Average	4684.129999999993

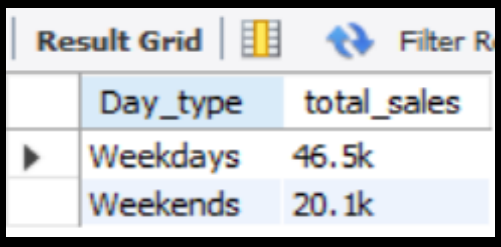
➢ SALES, QUANTITY and TOTAL ORDERS for a particular day Analysis

```
CONCAT(ROUND(SUM(unit_price * transaction_qty)/1000,1),'k') AS total_sales,
   SUM(transaction_qty) AS total_quantity_sold,
   COUNT(transaction_id) AS total_orders
FROM
   coffee_shop_sales
WHERE    transaction_date = '2023-05-18';              -- For 18 May 2023
```



- Total Sales in a particular month in Weekends (Sunday, Saturday)

```
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) = 2
GROUP BY
    CASE
      WHEN dayofweek(transaction_date) IN (1,7) THEN 'Weekends'
      ELSE 'Weekdays'
      END;
```



➢ Sales by store_location

```
store_location,
SUM(unit_price * transaction_qty) as Total_Sales
FROM
  coffee_shop_sales
WHERE
MONTH(transaction_date) =5
GROUP BY
   store_location
ORDER BY
 SUM(unit_price * transaction_qt
```

Result Grid | Filter Rows:

store_location	Total_Sales
Astoria	41171.98999999977
Lower Manhattan	40228.05999999955
Hell's Kitchen	38558.60999999979

➢ Daily Sales for Month selected

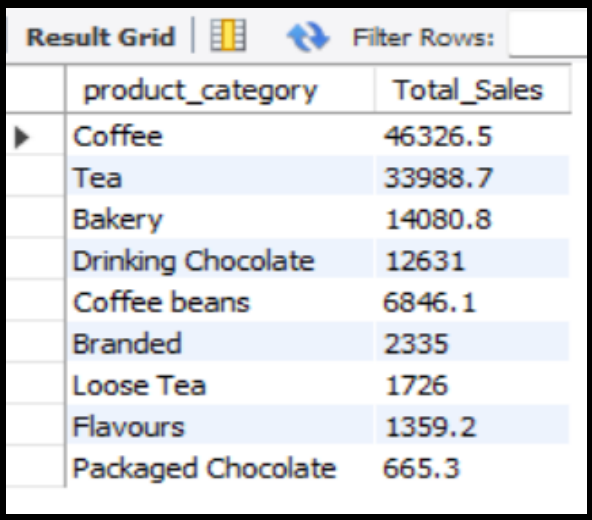
```
   DAY(transaction_date) AS day_of_month,
   ROUND(SUM(unit_price * transaction_qty),1) AS total_sales
FROM
   coffee_shop_sales
WHERE
   MONTH(transaction_date) = 5  -- Filter for May
```

```
GROUP BY
    DAY(transaction_date)
ORDER BY
    DAY(transaction_date);
```

day_of_month	total_sales
1	2418.9
2	2304.7
3	2945.3
4	3552.7
5	4701
6	4911.1
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

➢ Sales by Product Category

```
product_category,
ROUND(SUM(unit_price * transaction_qty),1) as Total_Sales
FROM
    coffee_shop_sales
WHERE
    MONTH(transaction_date) = 5
GROUP BY
    product_category
ORDER BY
     SUM(unit_price * transaction_qty) D
```

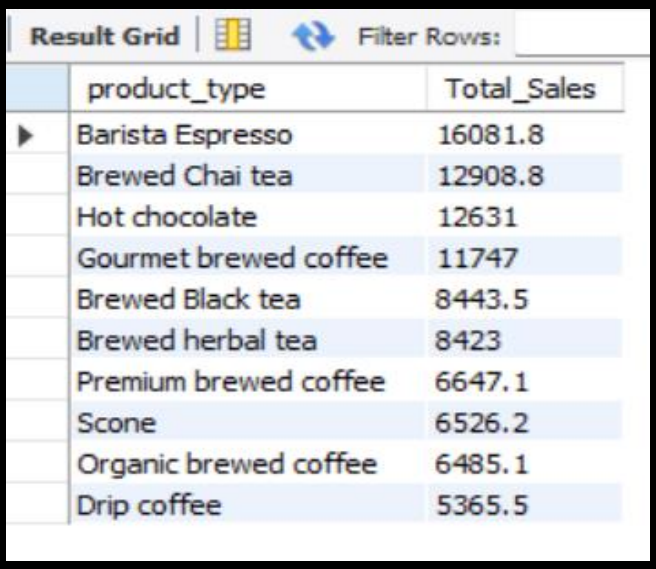


Result Grid | Filter Rows:

product_category	Total_Sales
Coffee	46326.5
Tea	33988.7
Bakery	14080.8
Drinking Chocolate	12631
Coffee beans	6846.1
Branded	2335
Loose Tea	1726
Flavours	1359.2
Packaged Chocolate	665.3

➢ Sales by Products (TOP 10)

```
SELECT
product_type,
ROUND(SUM(unit_price * transaction_qty),1) as Total_Sales
FROM coffee_shop_sales
WHERE
MONTH(transaction_date) = 5
GROUP BY product_type
ORDER BY SUM(unit_price * transaction_qty) DESC
LIMIT 10;
```



Result Grid | Filter Rows:

product_type	Total_Sales
Barista Espresso	16081.8
Brewed Chai tea	12908.8
Hot chocolate	12631
Gourmet brewed coffee	11747
Brewed Black tea	8443.5
Brewed herbal tea	8423
Premium brewed coffee	6647.1
Scone	6526.2
Organic brewed coffee	6485.1
Drip coffee	5365.5

➢ Sales By Day & Hour

```
SELECT
   ROUND(SUM(unit_price * transaction_qty)) AS Total_Sales,
   SUM(transaction_qty) AS Total_Quantity,
   COUNT(*) AS Total_Orders
FROM
   coffee_shop_sales
WHERE
```

```
  DAYOFWEEK(transaction_date) = 3 --  Tuesday
  AND HOUR(transaction_time) = 8 --  hour number 8
  AND MONTH(transaction_date) = 5; -- May
```

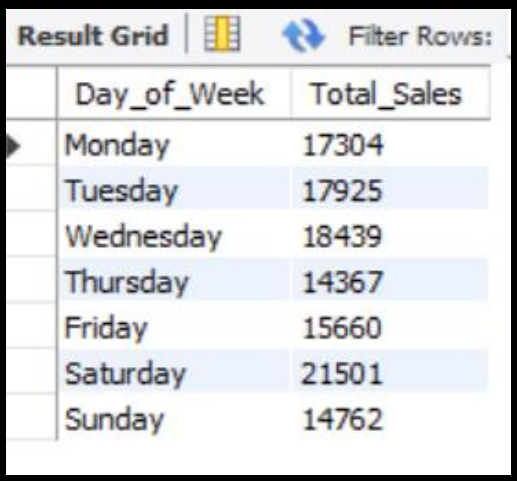
Result Grid | Filter Rows:

Total_Sales	Total_Quantity	Total_Orders
2170	636	444

➢ Sales on all days of week

```
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 -- May
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;
```



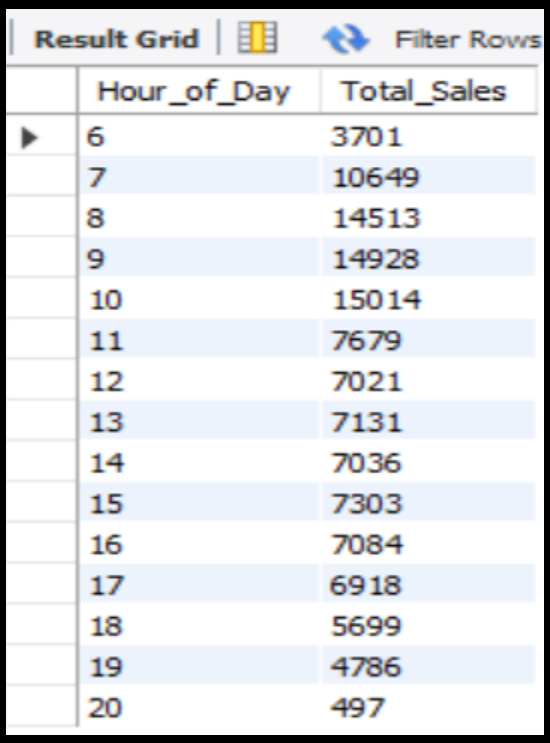
Result Grid | Filter Rows:

Day_of_Week	Total_Sales
Monday	17304
Tuesday	17925
Wednesday	18439
Thursday	14367
Friday	15660
Saturday	21501
Sunday	14762

➢ To get Sales for all Hours for Month of May

```
SELECT
  HOUR(transaction_time) AS Hour_of_Day,
  ROUND(SUM(unit_price * transaction_qty)) AS Total_Sales
FROM
  coffee_shop_sales
WHERE
  MONTH(transaction_date) = 5 -- Filter for May (month number 5)
GROUP BY
  HOUR(transaction_time)
ORDER BY
```

HOUR(transaction_time);



Result Grid | Filter Rows

Hour_of_Day	Total_Sales
6	3701
7	10649
8	14513
9	14928
10	15014
11	7679
12	7021
13	7131
14	7036
15	7303
16	7084
17	6918
18	5699
19	4786
20	497