COFFEE SALES ANALYSIS

CONVERT DATE (transaction_date) COLUMN TO PROPER DATE FORMAT

```
SET SQL_SAFE_UPDATES = 0;

UPDATE coffee_shop_sales

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

ALTER DATE (transaction_date) COLUMN TO DATE DATA TYPE

```
ALTER TABLE coffee_shop_sales

MODIFY COLUMN transaction_date DATE;
```

CONVERT TIME (transaction_time) COLUMN TO PROPER DATE FORMAT

```
UPDATE coffee_shop_sales

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

ALTER TIME (transaction_time) COLUMN TO DATE DATA TYPE

```
ALTER TABLE coffee_shop_sales

MODIFY COLUMN transaction_time TIME;

SET SQL_SAFE_UPDATES = 1;
```

DATA TYPES OF DIFFERENT COLUMNS

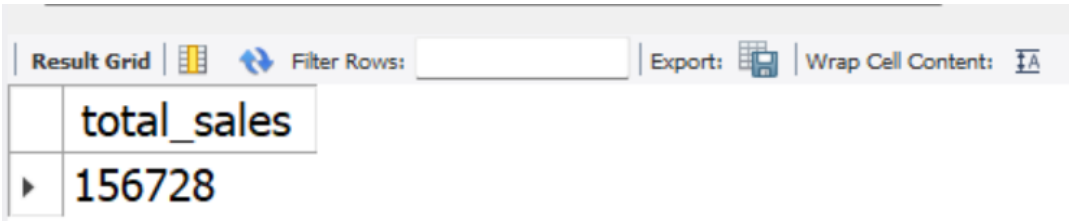
```
DESCRIBE coffee_shop_sales;
```

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

Field	Type	Null	Key	Default	Extra
transaction_id	int	YES		NULL	
transaction_date	date	YES		NULL	
transaction_time	time	YES		NULL	
transaction_qty	int	YES		NULL	
store_id	int	YES		NULL	
store_location	text	YES		NULL	
product_id	int	YES		NULL	
unit_price	double	YES		NULL	
product_category	text	YES		NULL	
product_type	text	YES		NULL	

TOTAL SALES

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



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

total_sales
156728

TOTAL SALES KPI - MOM DIFFERENCE AND MOM GROWTH

```
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 mom_increase_percentage
FROM coffee_shop_sales
WHERE
MONTH(transaction_date) IN (4, 5) -- for months of April and May
GROUP BY
MONTH(transaction_date)
ORDER BY
MONTH(transaction_date);
```

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

month	total_sales	mom_increase_percentage
4	118941	NULL
5	156728	31.769242384551315

TOTAL ORDERS

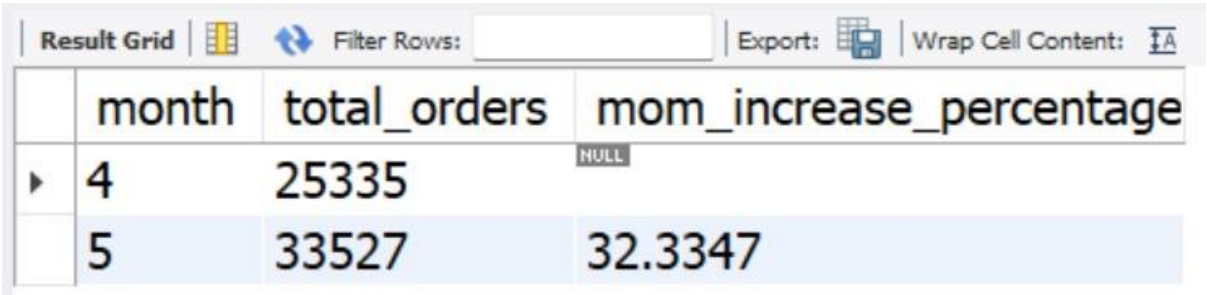
```
SELECT COUNT(transaction_id) AS total_orders
FROM coffee_shop_sales
WHERE MONTH (transaction_date)= 5 -- for month of may
```

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

count(transaction_id)
33527

TOTAL ORDERS KPI - MOM DIFFERENCE AND MOM GROWTH

```
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 coffee_shop_sales
WHERE
MONTH(transaction_date) IN (4, 5) -- for April and May
GROUP BY
MONTH(transaction_date)
ORDER BY
MONTH(transaction_date);
```

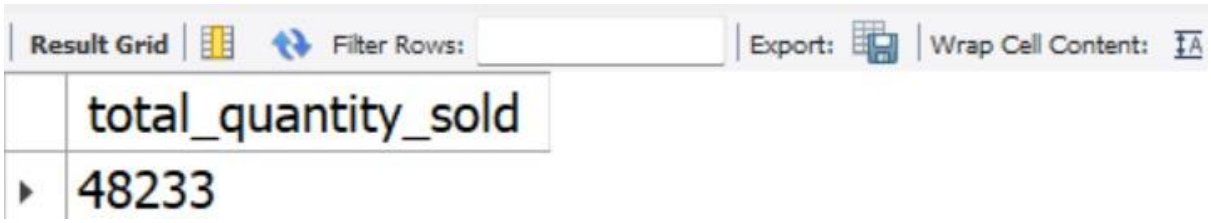


Result Grid | Filter Rows: | Export: | Wrap Cell Content:

month	total_orders	mom_increase_percentage
4	25335	NULL
5	33527	32.3347

TOTAL QUANTITY SOLD

```
SELECT SUM(transaction_qty) AS total_quantity_sold
FROM coffee_shop_sales
WHERE MONTH(transaction_date) = 5; -- for may month
```



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

total_quantity_sold
48233

TOTAL QUANTITY SOLD KPI - MOM DIFFERENCE AND MOM GROWTH

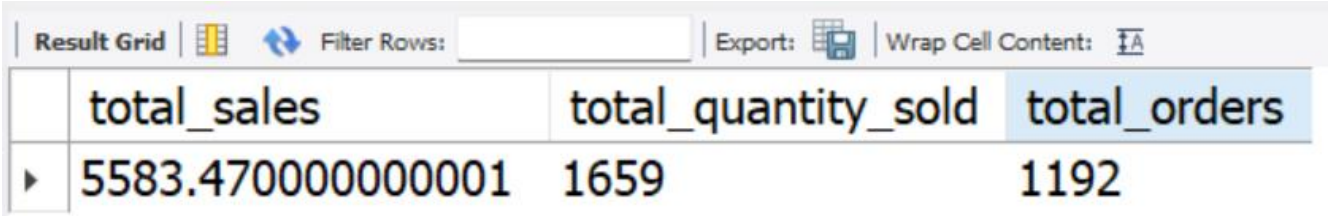
```
SELECT
MONTH(transaction_date) AS month,
ROUND(SUM(transaction_qty)) AS total_quantity_sold,
(SUM(transaction_qty) - LAG(SUM(transaction_qty), 1)
OVER (ORDER BY MONTH(transaction_date))) / LAG(SUM(transaction_qty), 1)
OVER (ORDER BY MONTH(transaction_date)) * 100 AS mom_increase_percentage
FROM coffee_shop_sales
WHERE
MONTH(transaction_date) IN (4, 5)   -- for April and May
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
4	36469	NULL
5	48233	32.2575

CALENDAR TABLE – DAILY SALES, QUANTITY and TOTAL ORDERS

```
SELECT
   SUM(unit_price * transaction_qty) 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
```

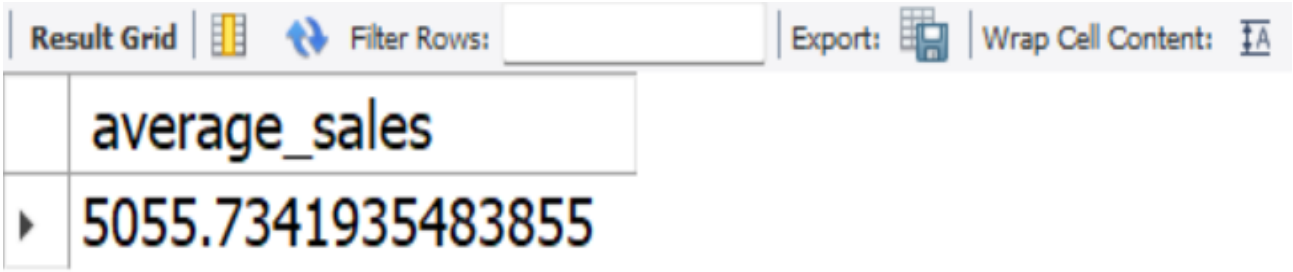


Result Grid | Filter Rows: | Export: | Wrap Cell Content:

total_sales	total_quantity_sold	total_orders
5583.470000000001	1659	1192

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  -- Filter for May
GROUP BY transaction_date
) AS internal_query;
```



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

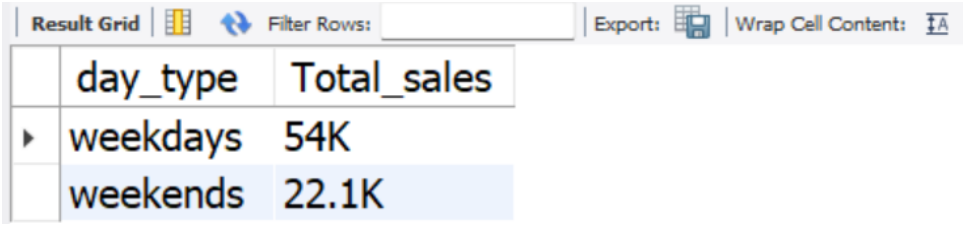
average_sales
5055.7341935483855

Weekends- Saturday, Sunday

Weekdays- Monday – Friday

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 coffee_shop_sales
WHERE MONTH(transaction_date)=2 -- For month ofFebruary
GROUP BY
CASE WHEN DAYOFWEEK(transaction_date) in (1,7) THEN "weekends"
ELSE "weekdays"
END;
```

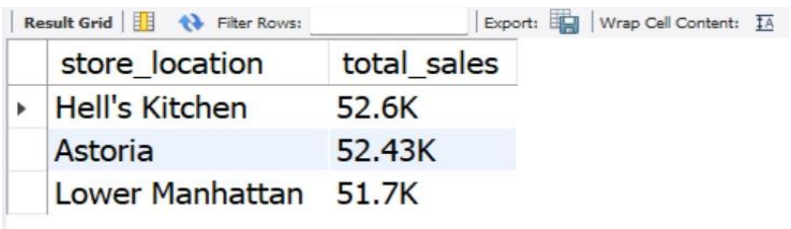


Result Grid | Filter Rows: | Export: | Wrap Cell Content:

day_type	Total_sales
weekdays	54K
weekends	22.1K

SALES ANALYSIS BY STORE LOCATION

```
SELECT store_location,
CONCAT(ROUND(SUM(unit_price*transaction_qty)/1000,2),"K") AS total_sales
FROM coffee_shop_sales
WHERE MONTH(transaction_date)=5
GROUP BY store_location
ORDER BY SUM(unit_price*transaction_qty) DESC;
```



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

store_location	total_sales
Hell's Kitchen	52.6K
Astoria	52.43K
Lower Manhattan	51.7K

DAILY SALES FOR MONTH SELECTED

```
SELECT DAY(transaction_date) AS day_of_month,
CONCAT(ROUND(SUM(unit_price*transaction_qty)/1000,1),"K") AS total_sales
FROM coffee_shop_sales
WHERE MONTH(transaction_date)=5
GROUP BY DAY(transaction_date)
ORDER BY DAY(transaction_date);
```

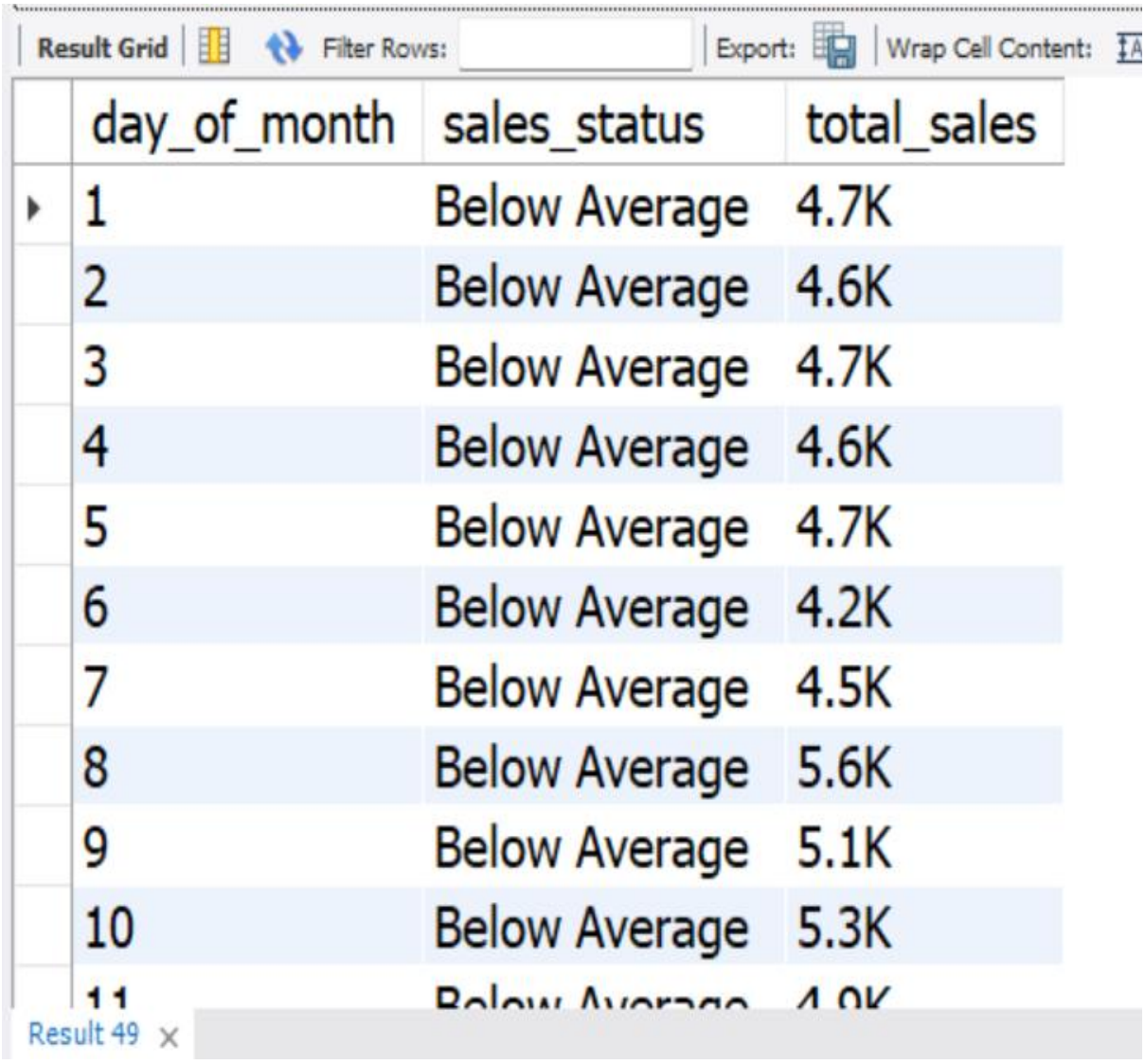
Result Grid | Filter Rows: | Export: | Wrap Cell Content:

day_of_month	total_sales
1	4.7K
2	4.6K
3	4.7K
4	4.6K
5	4.7K
6	4.2K
7	4.5K
8	5.6K

COMPARING DAILY SALES WITH AVERAGE SALES – IF GREATER THAN "ABOVE AVERAGE" and LESSER 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 "equal to average"
END AS sales_status,
total_sales
FROM(
```

```
SELECT DAY(transaction_date) AS day_of_month,

CONCAT(ROUND(SUM(unit_price*transaction_qty)/1000,1),"K") 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;
```



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

day_of_month	sales_status	total_sales
1	Below Average	4.7K
2	Below Average	4.6K
3	Below Average	4.7K
4	Below Average	4.6K
5	Below Average	4.7K
6	Below Average	4.2K
7	Below Average	4.5K
8	Below Average	5.6K
9	Below Average	5.1K
10	Below Average	5.3K
11	Below Average	4.9K

Result 49

SALES BY PRODUCT CATEGORY

```
SELECT product_category,
CONCAT(ROUND(SUM(unit_price*transaction_qty)/1000,1),"K") AS total_sales
FROM coffee_shop_sales
WHERE MONTH(transaction_date) = 5
GROUP BY product_category
ORDER BY SUM(unit_price * transaction_qty) DESC;
```

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

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

SALES BY PRODUCTS (TOP 10)

```
SELECT product_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 product_type
ORDER BY SUM(unit_price * transaction_qty) DESC
LIMIT 10;
```

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

product_type	total_sales
Barista Espresso	20.4K
Brewed Chai tea	17.4K
Hot chocolate	16.3K
Gourmet brewed coffee	15.6K
Brewed herbal tea	10.9K
Brewed Black tea	10.8K
Premium brewed coffee	8.7K
Organic brewed coffee	8.4K
Scone	8.3K
Drip coffee	7.3K

SALES BY DAY | HOUR

```
SELECT CONCAT(ROUND(SUM(unit_price*transaction_qty)/1000,1),"K") AS total_sales,
SUM(transaction_qty) as total_qty_sold, COUNT(*) AS total_orders
FROM coffee_shop_sales
WHERE MONTH(transaction_date)= 5 -- may month
AND DAYOFWEEK(transaction_date)= 2 -- monday
AND HOUR(transaction_time)=8;
```

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

total_sales	total_qty_sold	total_orders
2.7K	819	572

TO GET SALES FOR ALL HOURS FOR MONTH OF MAY

```
SELECT
HOUR(transaction_time),
CONCAT(ROUND(SUM(unit_price*transaction_qty)/1000,1),"K") AS total_sales
FROM coffee_shop_sales
WHERE MONTH (transaction_date)= 5
GROUP BY HOUR (transaction_time)
ORDER BY HOUR (transaction_time) ASC;
```

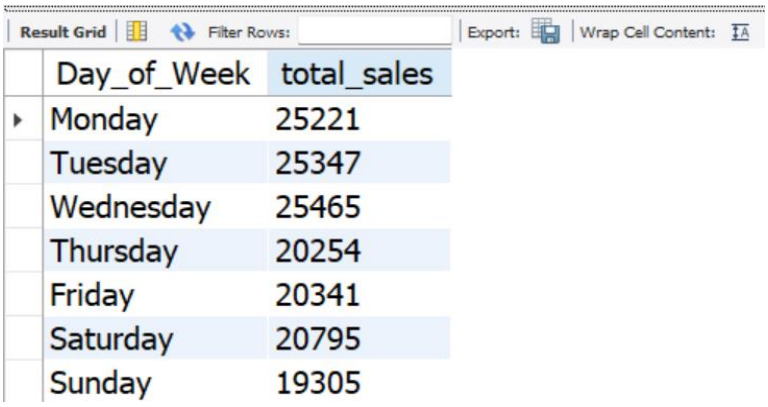
Result Grid | Filter Rows: | Export: | Wrap Cell Content:

hour(transaction_time)	total_sales
6	4.9K
7	14.4K
8	18.8K
9	19.1K
10	19.6K
11	10.3K
12	8.9K
13	9.4K
14	9.1K

Result 31

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 coffee_shop_sales
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;
```



Day_of_Week	total_sales
Monday	25221
Tuesday	25347
Wednesday	25465
Thursday	20254
Friday	20341
Saturday	20795
Sunday	19305