Coffee Sales DB | SQL Queries

To Correct the format of the column transaction_time

```
ALTER TABLE [Coffee Shop Sales]
ADD CleanTime VARCHAR(8);

UPDATE [Coffee Shop Sales]
SET CleanTime = CONVERT(VARCHAR(8), transaction_time, 108);

ALTER TABLE [Coffee Shop Sales]
DROP COLUMN transaction_time;

EXEC sp_rename '[Coffee Shop Sales].CleanTime', 'transaction_time', 'COLUMN';
```

Display the total sales for the month 5 – may

```
SELECT Round(SUM(unit_price * transaction_qty),2) as Total_Sales
FROM [Coffee Shop Sales] where month(transaction_date) = 5
```

Total_Sales
156727.76

Find the percentage and total sales in the previous and current month

```
SELECT MONTH(transaction_date) AS month,ROUND(SUM(unit_price * transaction_qty),
1) AS Total_sales,
 ROUND((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, 2) 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);
```

month	Total_sales	mom_increase_percentage
4	118941.1	NULL
5	156727.8	31.77

Find out total orders placed in a month

```
SELECT COUNT(transaction_id) as Total_Orders
FROM [Coffee Shop Sales] WHERE MONTH (transaction_date)= 5
```

Total_Orders
33527

Find the percentage and total orders in the previous and current month

```
SELECT MONTH(transaction_date) AS [month],SUM(transaction_qty) AS total_qty,
FORMAT((SUM(transaction_qty) - LAG(SUM(transaction_qty)) OVER (ORDER BY
MONTH(transaction_date)))
* 100.0 / NULLIF(LAG(SUM(transaction_qty)) OVER (ORDER BY
MONTH(transaction_date)), 0),'N2') AS mom_increase_percentage
FROM [Coffee Shop Sales]
WHERE MONTH(transaction_date) IN (4, 5)
GROUP BY MONTH(transaction_date)
ORDER BY [month];
```

month	total_qty	mom_increase_percentage
4	36469	NULL
5	48233	32.26

Calender table for daily sales, total quantity sold and total orders

```
SELECT round(SUM(unit_price * transaction_qty),2) 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';
```

total_sales	total_quantity_sold	total_orders
5583.47	1659	1192

Sales trend over period

```
SELECT AVG(total_sales) AS average_sales
FROM (SELECT round(SUM(unit_price * transaction_qty),2) AS total_sales
FROM [Coffee Shop Sales]
WHERE MONTH(transaction_date) = 5  -- Filter for May
GROUP BY transaction_date
) AS internal_query;
```

average_sales
5055.73419354839

Daily sales for month selected

```
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  -- Filter for May
GROUP BY DAY(transaction_date)
ORDER BY DAY(transaction_date);
```

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

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 '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 GROUP BY DAY(transaction_date)) AS sales_data

ORDER BY day_of_month;
```

day_of_month	sales_status	total_sales
1	Below Average	4731.44999742508
2	Below Average	4625.49999952316
3	Below Average	4714.59999656677
4	Below Average	4589.69999623299
5	Below Average	4700.9999973774
6	Below Average	4205.14999723434
7	Below Average	4542.6999989748
8	Above Average	5604.20999372005
9	Above Average	5100.96999657154

Sales by weekend/weekday

```
SELECT CASE WHEN DATENAME(WEEKDAY, transaction_date) IN ('Saturday', 'Sunday') THEN
'Weekends' ELSE 'Weekdays'

END AS day_type,ROUND(SUM(unit_price * transaction_qty), 2) AS total_sales

FROM [Coffee Shop Sales]

WHERE MONTH(transaction_date) = 5  -- May

GROUP BY CASE WHEN DATENAME(WEEKDAY, transaction_date) IN ('Saturday', 'Sunday') THEN
'Weekends' ELSE 'Weekdays'

END;
```

day_type	total_sales
Weekends	40099.92
Weekdays	116627.84

Sales by store location

```
SELECT  CONVERT(VARCHAR(255), store_location) AS store_location,SUM(unit_price *
transaction_qty) AS Total_Sales

FROM [Coffee Shop Sales]

WHERE MONTH(transaction_date) = 5 GROUP BY CONVERT(VARCHAR(255), store_location)

ORDER BY SUM(unit_price * transaction_qty) DESC;
```

store_location	Total_Sales
Hell's Kitchen	52598.9299626946
Astoria	52428.7599619031
Lower Manhattan	51700.0699841976

Sales by product category

```
SELECT CONVERT(VARCHAR(255), product_category) AS product_category,ROUND(SUM(unit_price * transaction_qty), 1) AS Total_Sales

FROM [Coffee Shop Sales]

WHERE MONTH(transaction_date) = 5

GROUP BY CONVERT(VARCHAR(255), product_category)

ORDER BY SUM(unit_price * transaction_qty) DESC;
```

product_category	Total_Sales
Coffee	60362.9
Tea	44539.8
Bakery	18565.5
Drinking Chocolate	16319.8
Coffee beans	8769
Branded	2889
Loose Tea	2395.1
Flavours	1905.6
Packaged Chocolate	981.1

Sales by product (top 10)

```
SELECT TOP 10 CONVERT(VARCHAR(255), product_type) AS product_type,ROUND(SUM(unit_price * transaction_qty), 1) AS Total_Sales

FROM [Coffee Shop Sales]

WHERE MONTH(transaction_date) = 5

GROUP BY CONVERT(VARCHAR(255), product_type)

ORDER BY SUM(unit_price * transaction_qty) DESC;
```

product_type	Total_Sales
Barista Espresso	20423.7
Brewed Chai tea	17427.3
Hot chocolate	16319.8
Gourmet brewed coffee	15559.2
Brewed herbal tea	10930
Brewed Black tea	10778
Premium brewed coffee	8739.2
Organic brewed coffee	8350.2
Scone	8305.3
Drip coffee	7290.5

Sales by day | hour

```
SELECT ROUND(SUM(unit_price * transaction_qty), 2) AS Total_Sales,SUM(transaction_qty) AS Total_Quantity,

COUNT(*) AS Total_Orders

FROM [Coffee Shop Sales]

WHERE DATEPART(WEEKDAY, transaction_date) = 3 AND DATEPART(HOUR, transaction_time) = 8 AND DATEPART(MONTH, transaction_date) = 5;
```

Total_Sales	Total_Quantity	Total_Orders
2968.88	874	612

Sales by day of the week

```
SELECT CASE

WHEN DATEPART(WEEKDAY, transaction_date) = 1 THEN 'Sunday'

WHEN DATEPART(WEEKDAY, transaction_date) = 2 THEN 'Monday'

WHEN DATEPART(WEEKDAY, transaction_date) = 3 THEN 'Tuesday

WHEN DATEPART(WEEKDAY, transaction_date) = 4 THEN 'Wednesday'

WHEN DATEPART(WEEKDAY, transaction_date) = 5 THEN 'Thursday'

WHEN DATEPART(WEEKDAY, transaction_date) = 6 THEN 'Friday'

 WHEN DATEPART(WEEKDAY, transaction_date) = 7 THEN 'Saturday'

 END AS Day_of_Week, ROUND(SUM(unit_price * transaction_qty), 0) AS Total_Sales

FROM [Coffee Shop Sales] WHERE MONTH(transaction_date) = 5 GROUP BY DATEPART(WEEKDAY, transaction_date) ORDER BY DATEPART(WEEKDAY, transaction_date);
```

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

by hours

```
SELECT DATEPART(HOUR, transaction_time) AS Hour_of_Day,ROUND(SUM(unit_price *
transaction_qty), 2) AS Total_Sales

FROM [Coffee Shop Sales]

WHERE MONTH(transaction_date) = 5

GROUP BY DATEPART(HOUR, transaction_time)

ORDER BY DATEPART(HOUR, transaction_time);
```

Hour_of_Day	Total_Sales
6	4912.93
7	14350.68
8	18822.31
9	19145.27
10	19639.13
11	10312.16
12	8869.79
13	9379.21
14	9057.66
15	9525.15
16	9154.31
17	8966.85
18	7679.91
19	6256.47
20	655.93