SQL Queries (Balaji Food Sales Analysis)

1.Data Cleaning

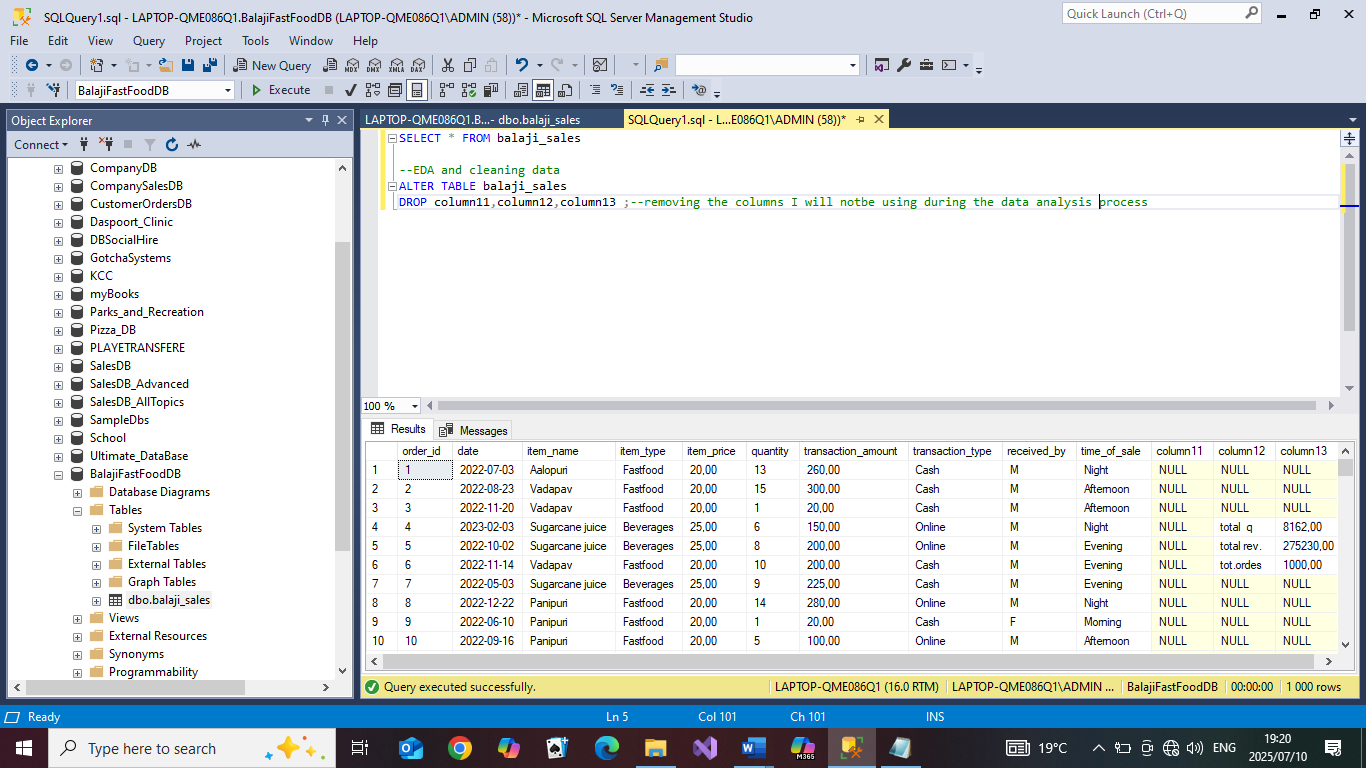
* Removing Null columns which I won’t be using in the data analysis process

code:

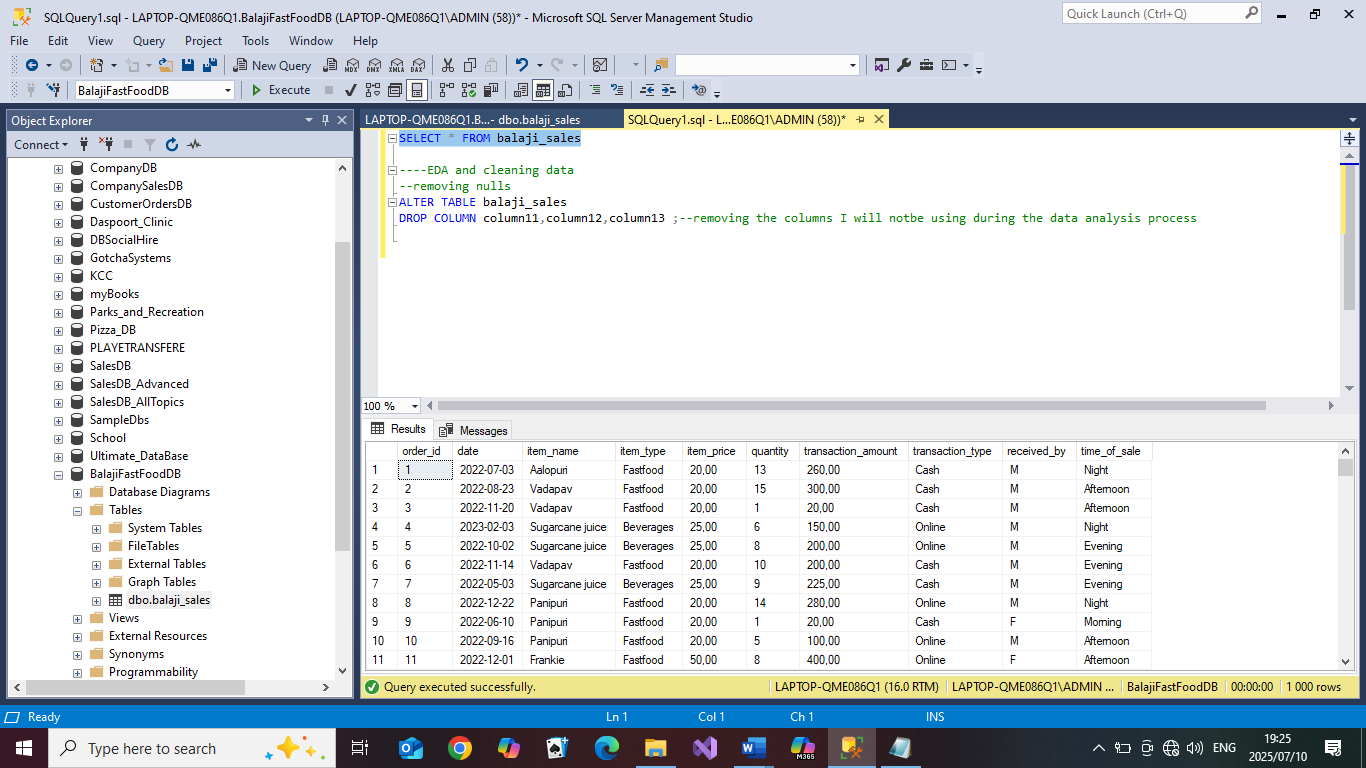
ALTER TABLE balaji\_sales

DROP COLUMN column11,column12,column13;

-before



-results



* Checking if other rows have Nulls in all columns

code:

SELECT \* FROM balaji\_sales WHERE order\_id IS NULL

SELECT \* FROM balaji\_sales WHERE [date] IS NULL

SELECT \* FROM balaji\_sales WHERE item\_name IS NULL

SELECT \* FROM balaji\_sales WHERE item\_type IS NULL

SELECT \* FROM balaji\_sales WHERE quantity IS NULL

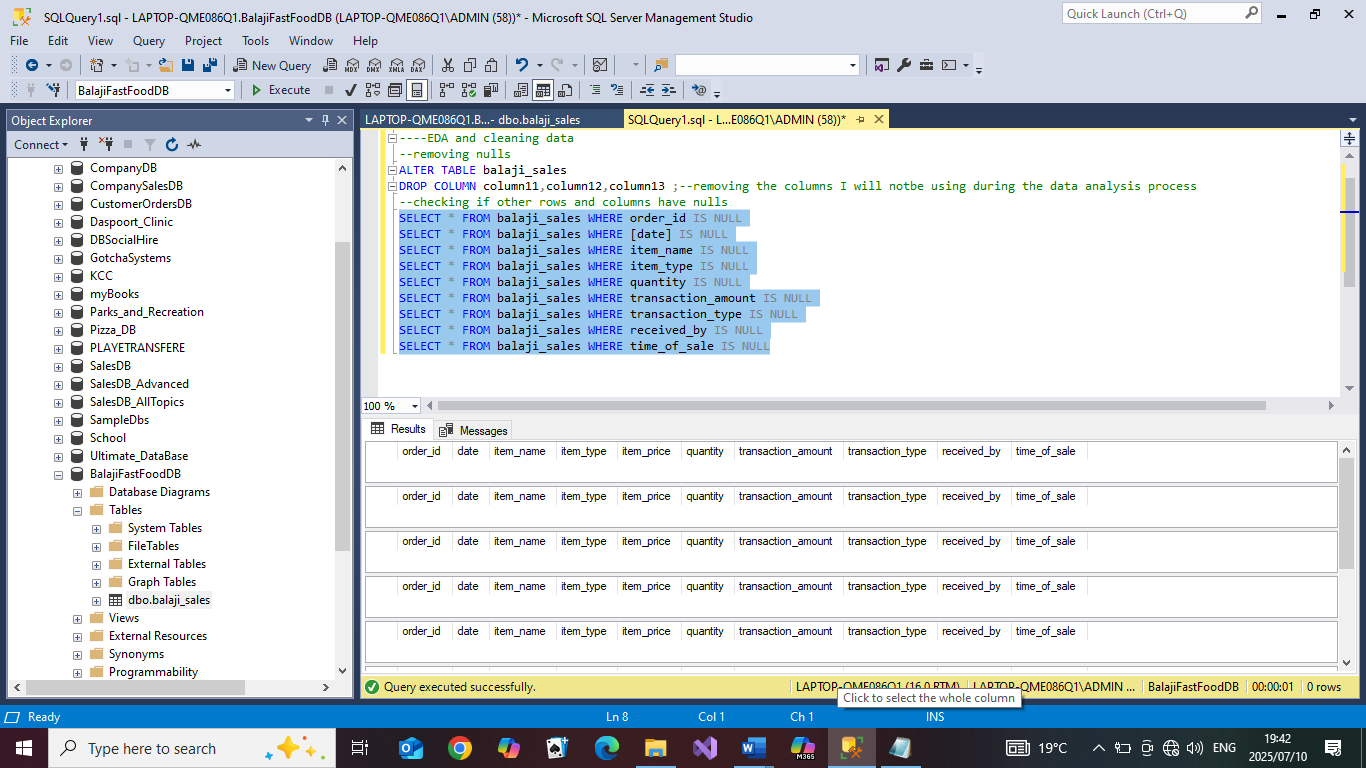
SELECT \* FROM balaji\_sales WHERE transaction\_amount IS NULL

SELECT \* FROM balaji\_sales WHERE transaction\_type IS NULL

SELECT \* FROM balaji\_sales WHERE received\_by IS NULL

SELECT \* FROM balaji\_sales WHERE time\_of\_sale IS NULL

-results:



* Extracting and adding Day and Month Columns for trend analysis

Code:

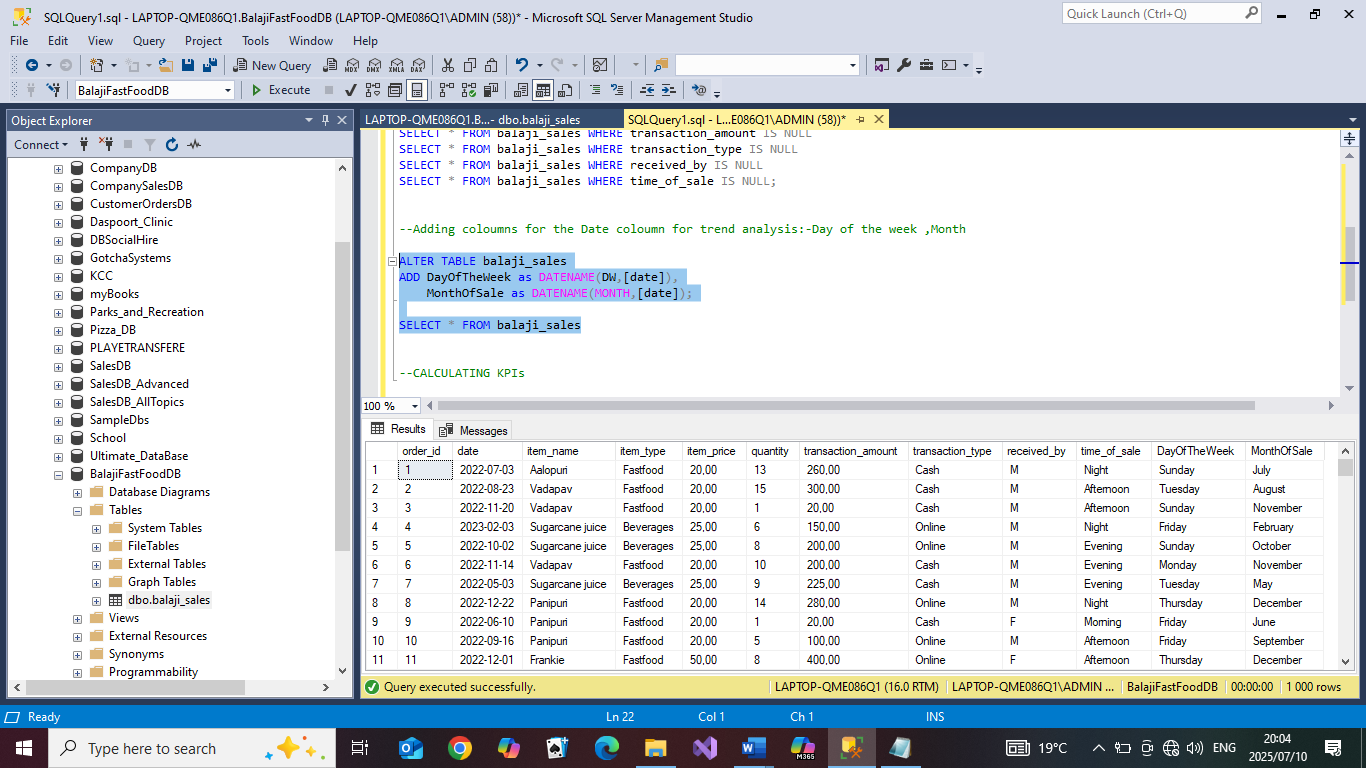
ALTER TABLE balaji\_sales

ADD DayOfTheWeek as DATENAME(DW,[date]),

MonthOfSale as DATENAME(MONTH,[date]);

SELECT \* FROM balaji\_sales

-results:



* Standardizing text in the gender column, changing ‘M’ to Male and ‘F’ to Female for more clarity

Code:

UPDATE balaji\_sales

SET received\_by='Male'

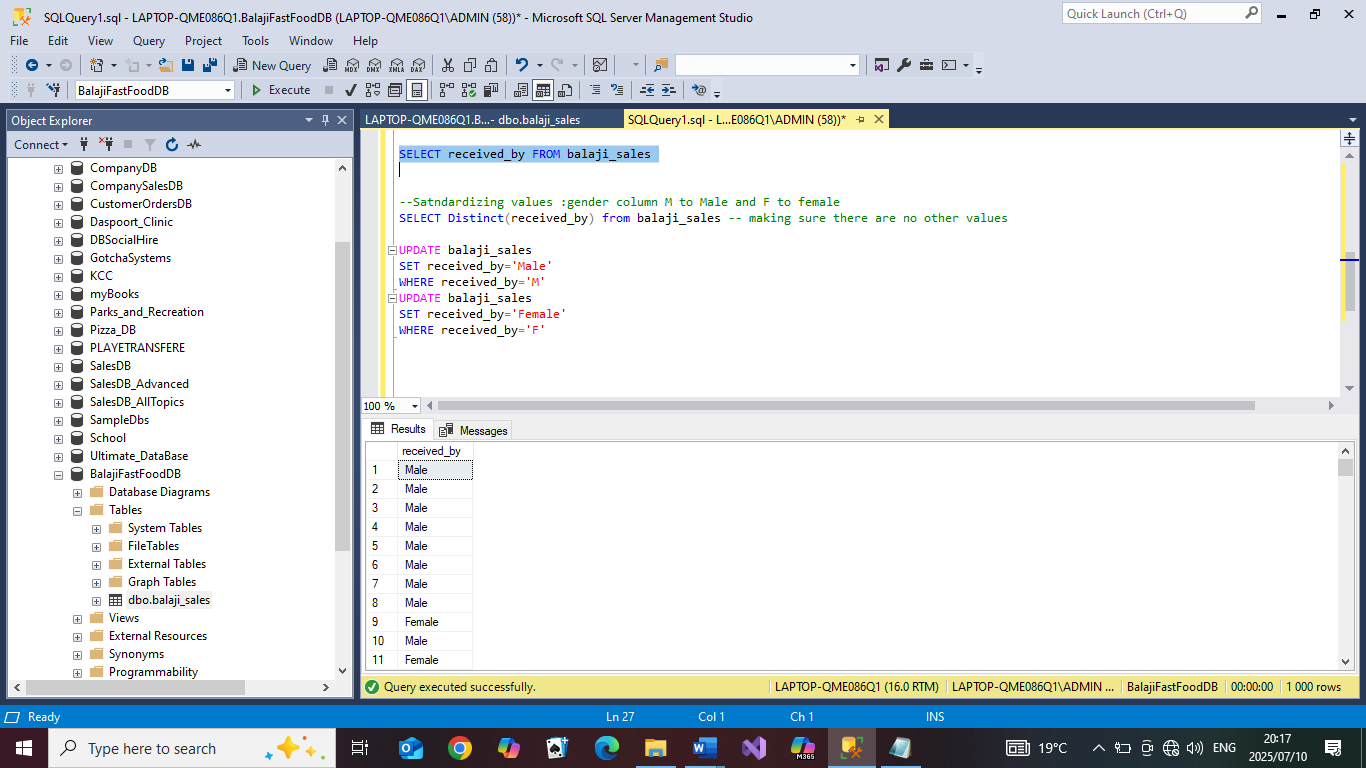
WHERE received\_by='M'

UPDATE balaji\_sales

SET received\_by='Female'

WHERE received\_by='F'

-results:



* Checking for duplicated values

code:

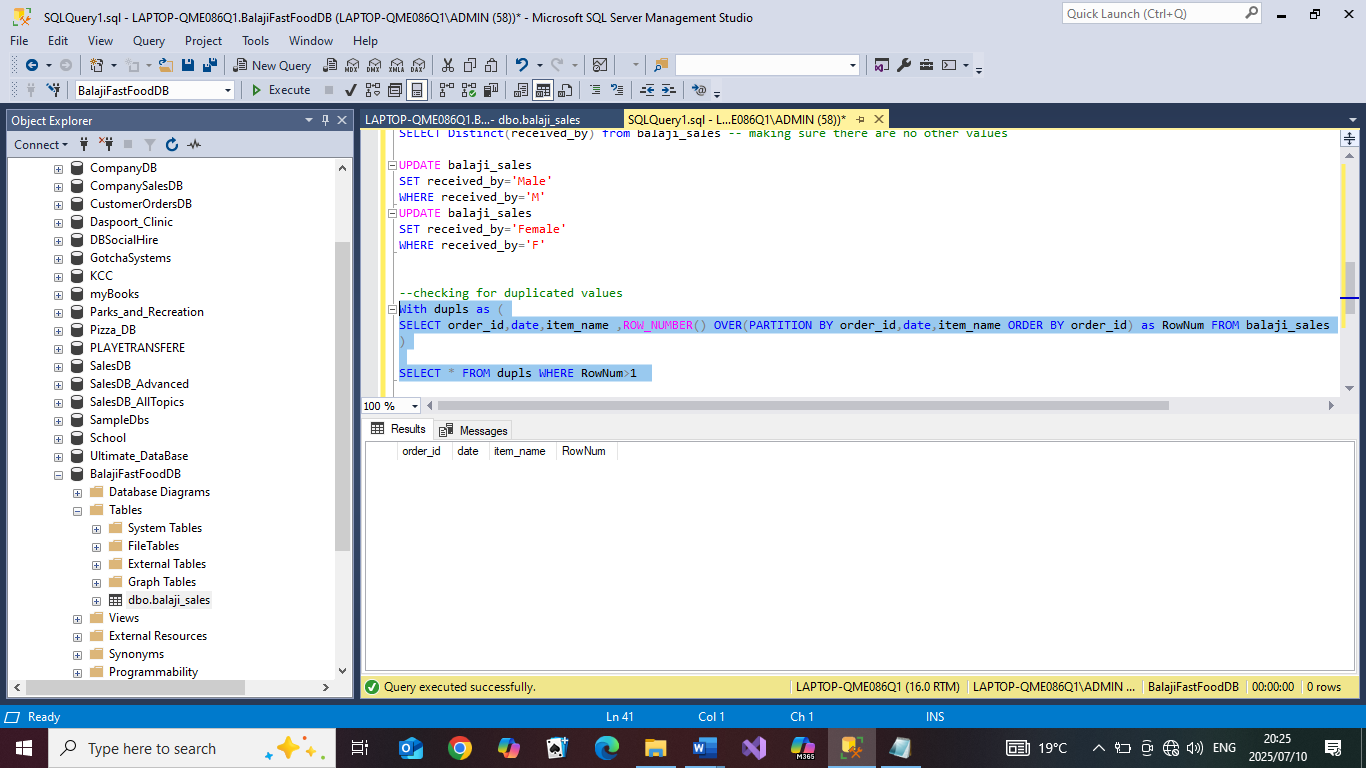
With dupls as (

SELECT order\_id,date,item\_name ,ROW\_NUMBER() OVER(PARTITION BY order\_id,date,item\_name ORDER BY order\_id) as RowNum FROM balaji\_sales

)

SELECT \* FROM dupls WHERE RowNum>1

-results:



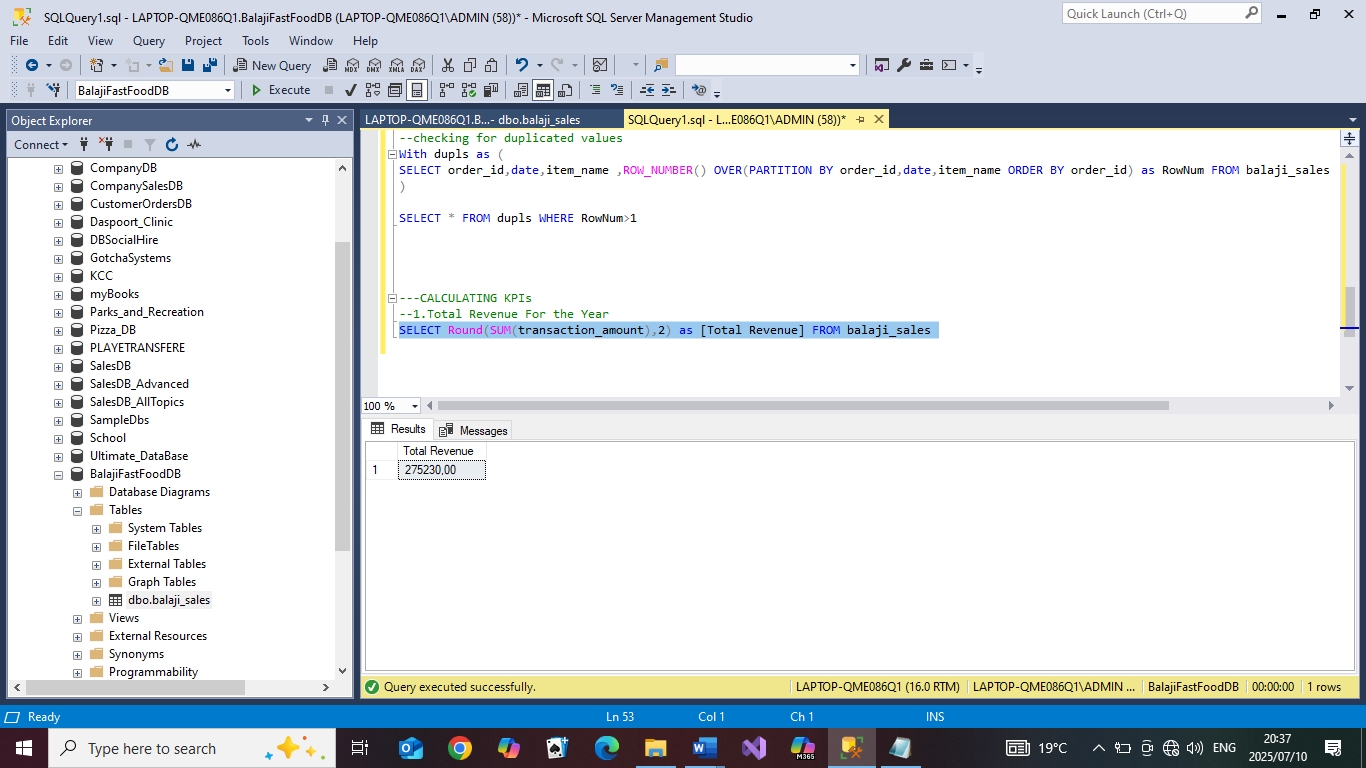
2.Calculating KPIs

1. Total Revenue For the Year

Code:

SELECT Round(SUM(transaction\_amount),2) as [Total Revenue] FROM balaji\_sales

-results:

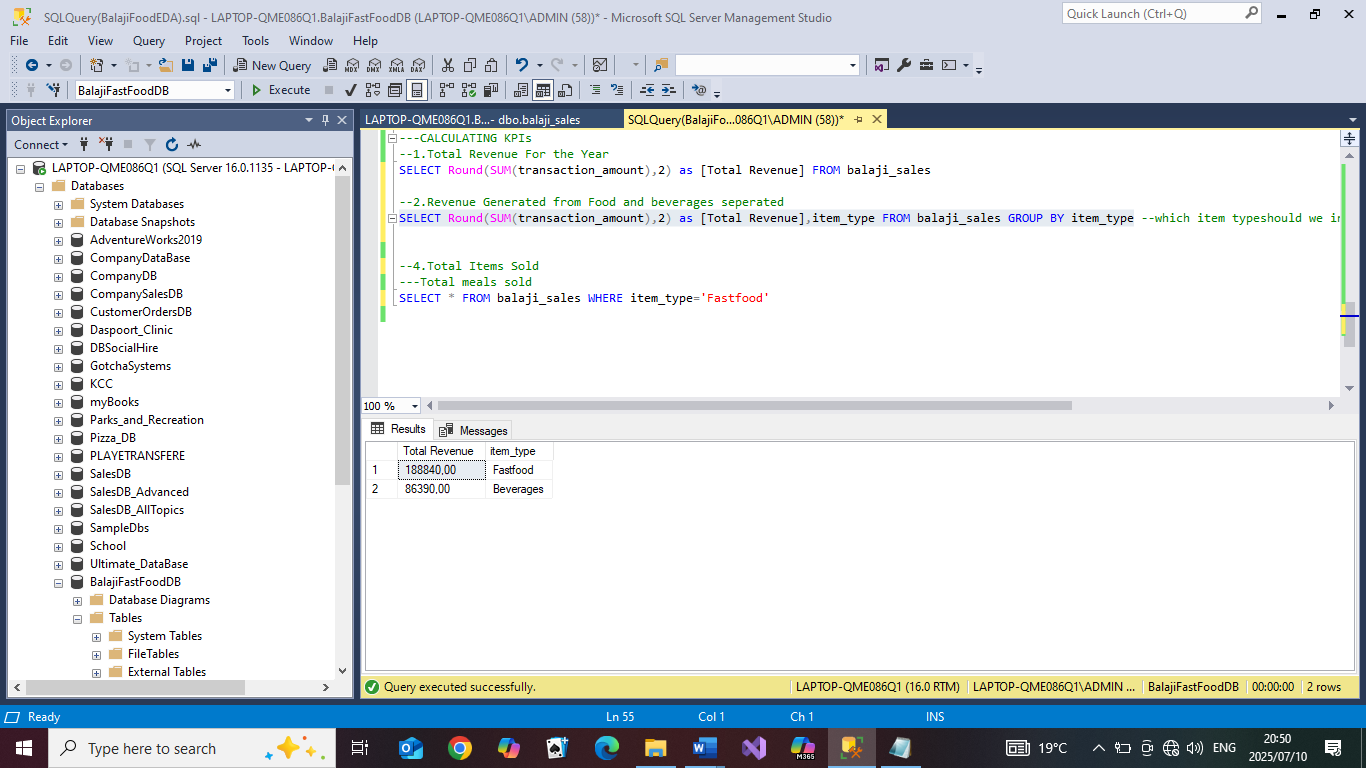


1. Total revenue on each item type

Code:

SELECT Round(SUM(transaction\_amount),2) as [Total Revenue],item\_type FROM balaji\_sales GROUP BY item\_type

-Results:

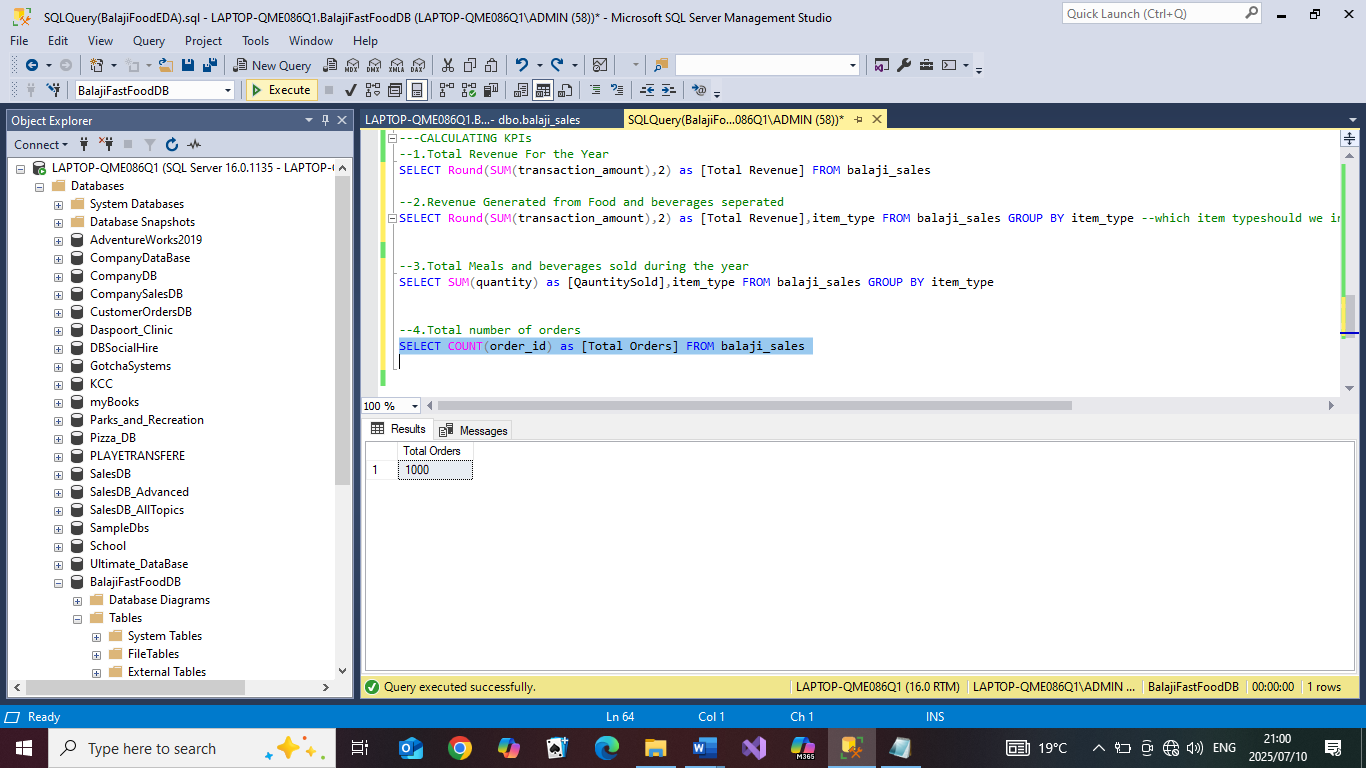


1. Total number of orders made

code:

SELECT COUNT(order\_id) as [Total Orders] FROM balaji\_sales

Results:

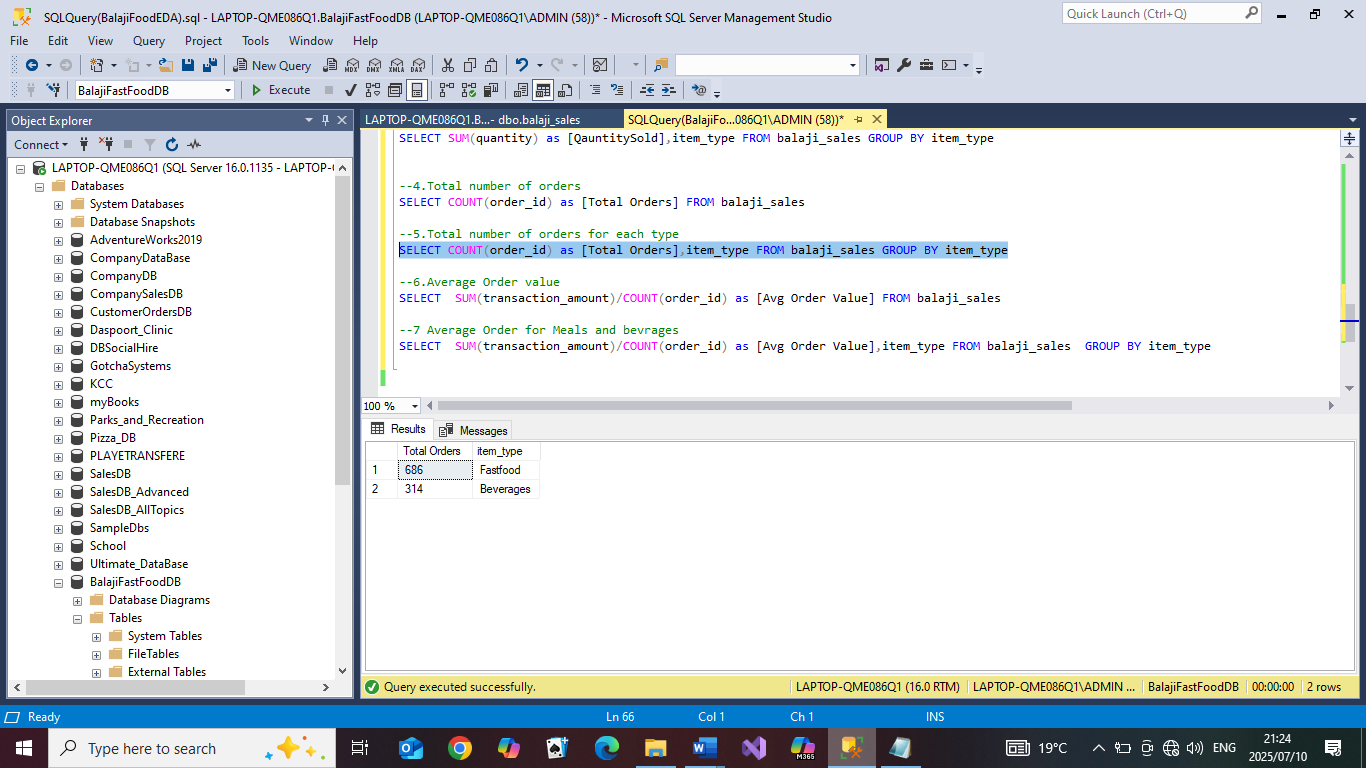


1. Total number of orders on each item type

code:

SELECT COUNT(order\_id) as [Total Orders],item\_type

FROM balaji\_sales GROUP BY item\_type



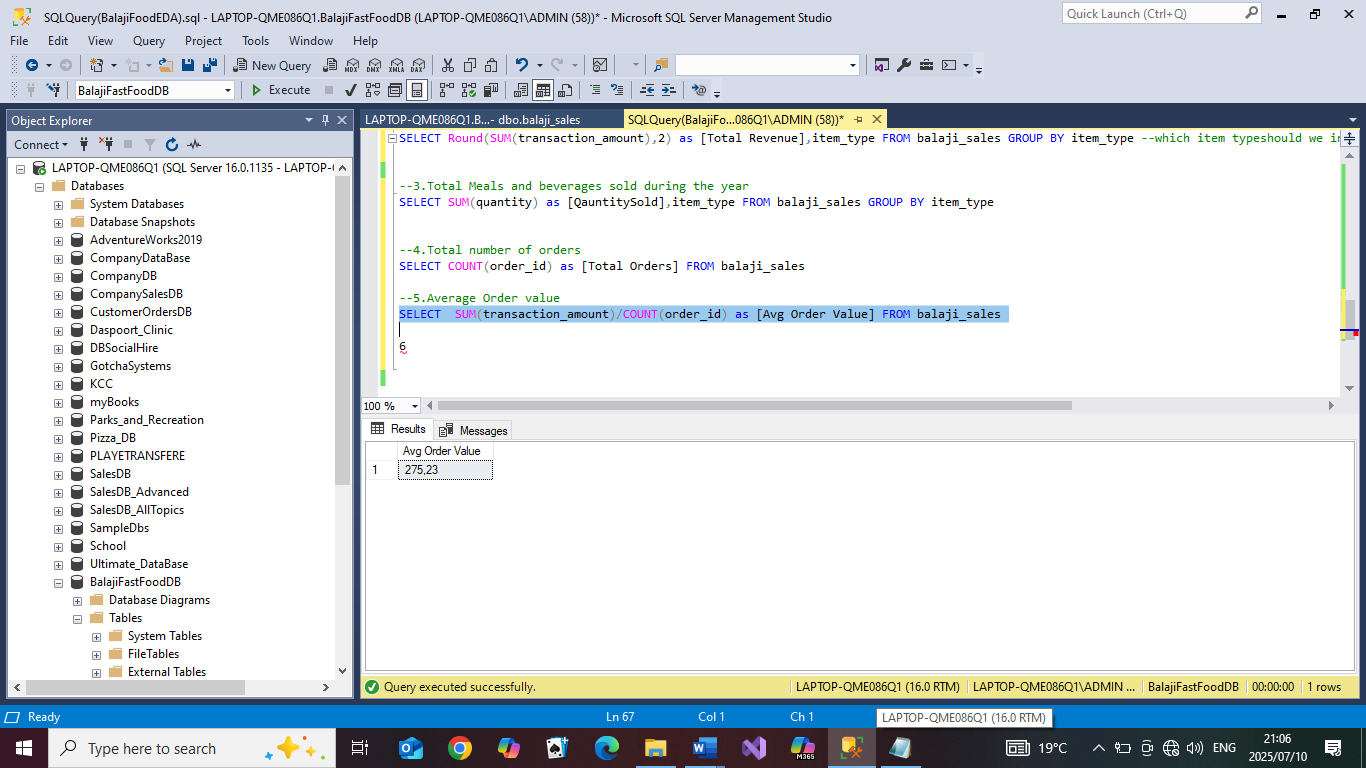
1. Average order value

Code:

SELECT SUM(transaction\_amount)/COUNT(order\_id) as [Avg Order Value]

FROM balaji\_sales

Results:

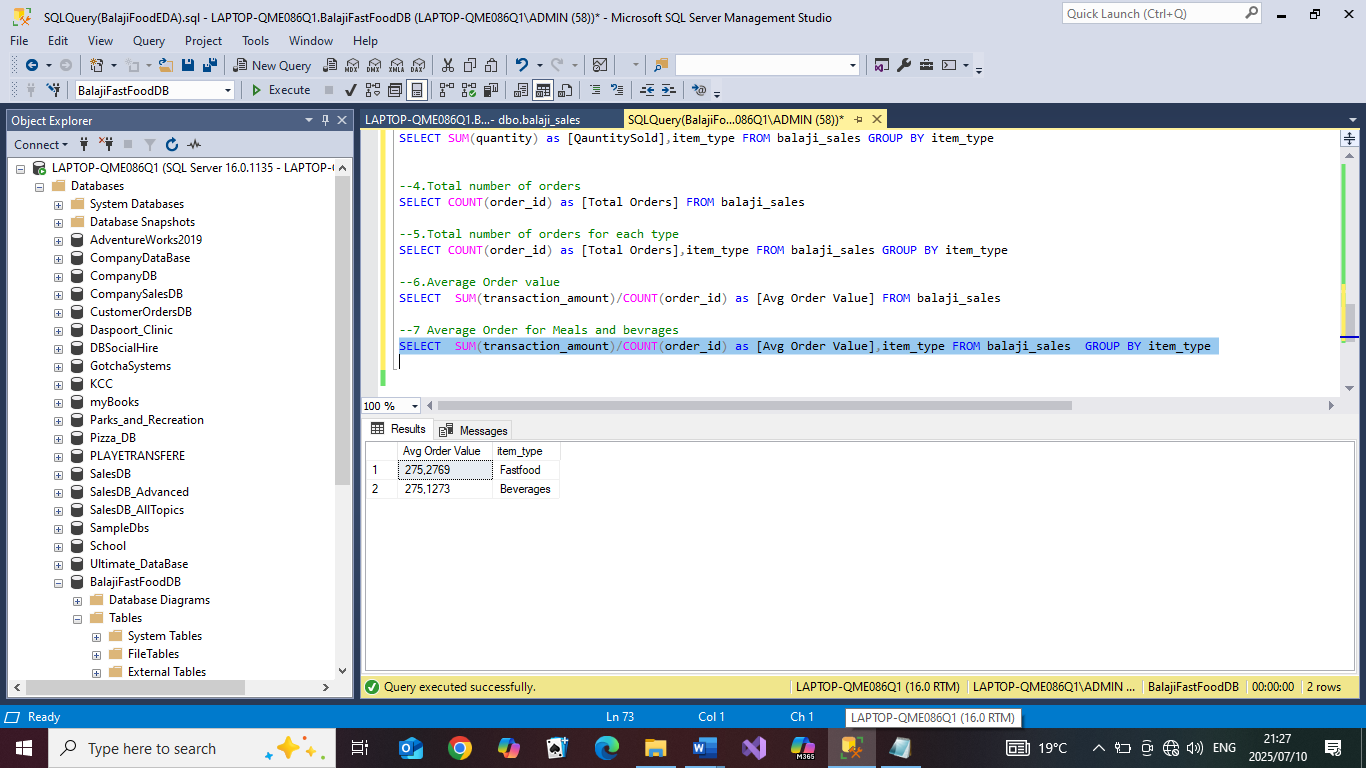


1. Average order value of each item type for the year

Code:

SELECT SUM(transaction\_amount)/COUNT(order\_id) as [Avg Order Value],item\_type FROM balaji\_sales GROUP BY item\_type

Results:



3.ANALYSIS

* Trend analysis

-Monthly Trends: Looking at revenue for each month

code:

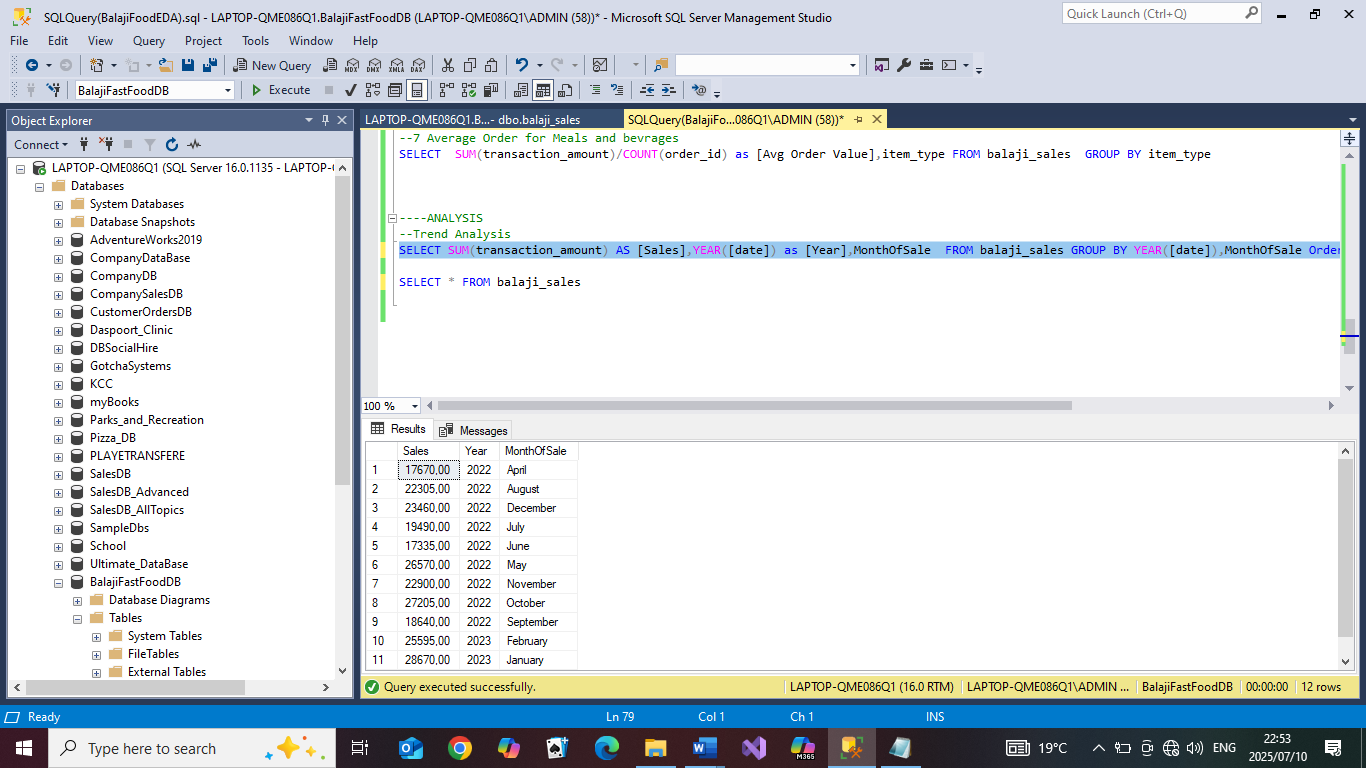
SELECT SUM(transaction\_amount) AS [Sales],YEAR([date]) as

[Year],MonthOfSale

FROM balaji\_sales GROUP BY YEAR([date]),MonthOfSale Order by

YEAR([date])

results:



-Looking at the month with the most sales

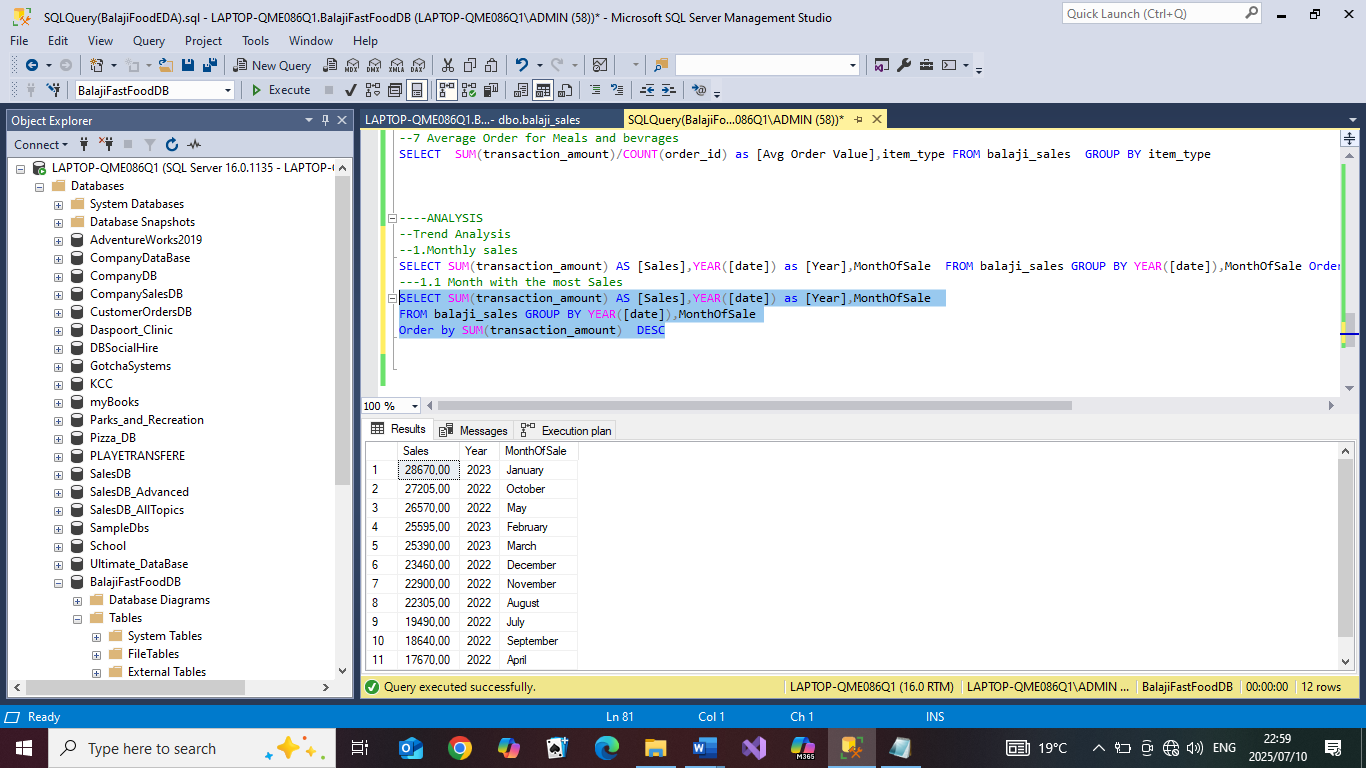
code:

SELECT SUM(transaction\_amount) AS [Sales],YEAR([date]) as [Year],MonthOfSale

FROM balaji\_sales GROUP BY YEAR([date]),MonthOfSale

Order by SUM(transaction\_amount) DESC

Results:



-Daily trend: Looking at the revenue generated over the year for each day and seeing which day generated the most amount of sales

Code:

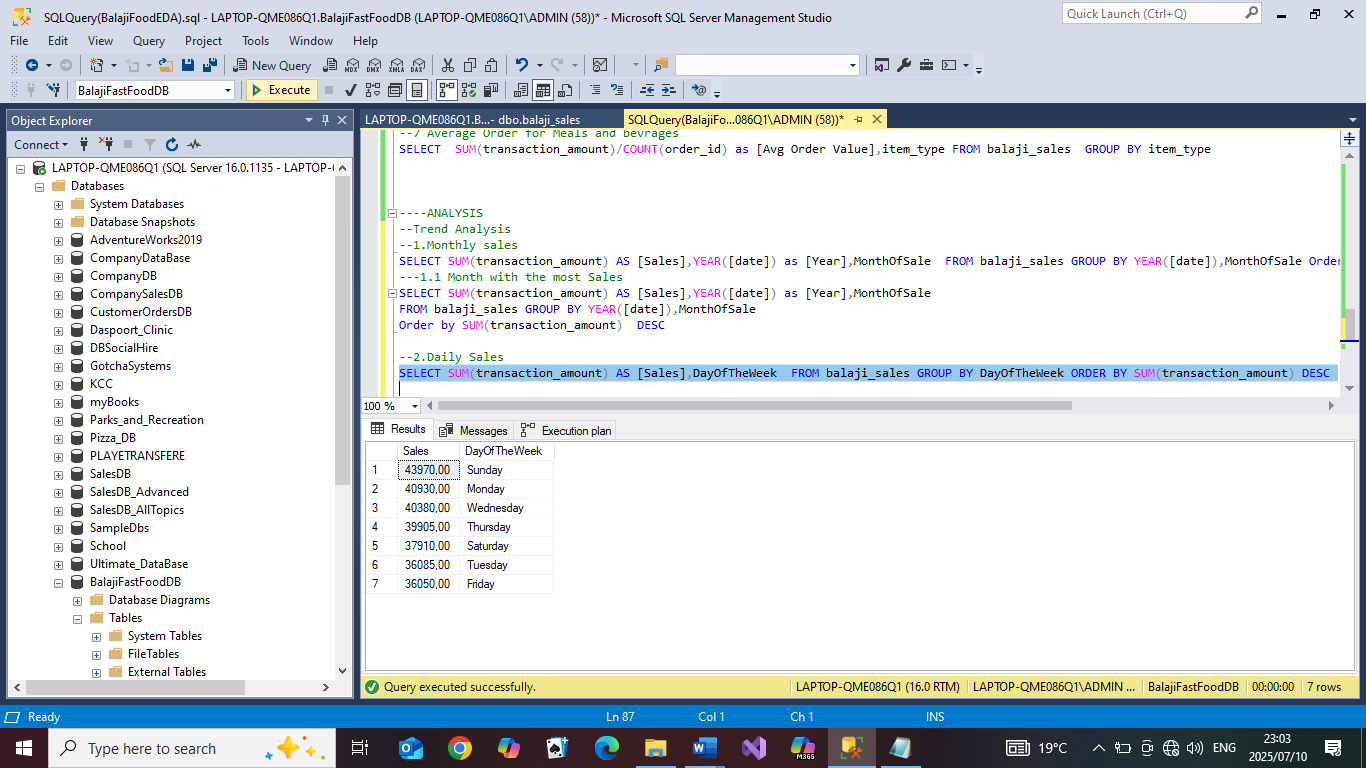
SELECT SUM(transaction\_amount) AS [Sales],DayOfTheWeek

FROM balaji\_sales

GROUP BY DayOfTheWeek

ORDER BY SUM(transaction\_amount) DESC

Results:



-Time of sale: Time during the day in which sales are being made

Code:

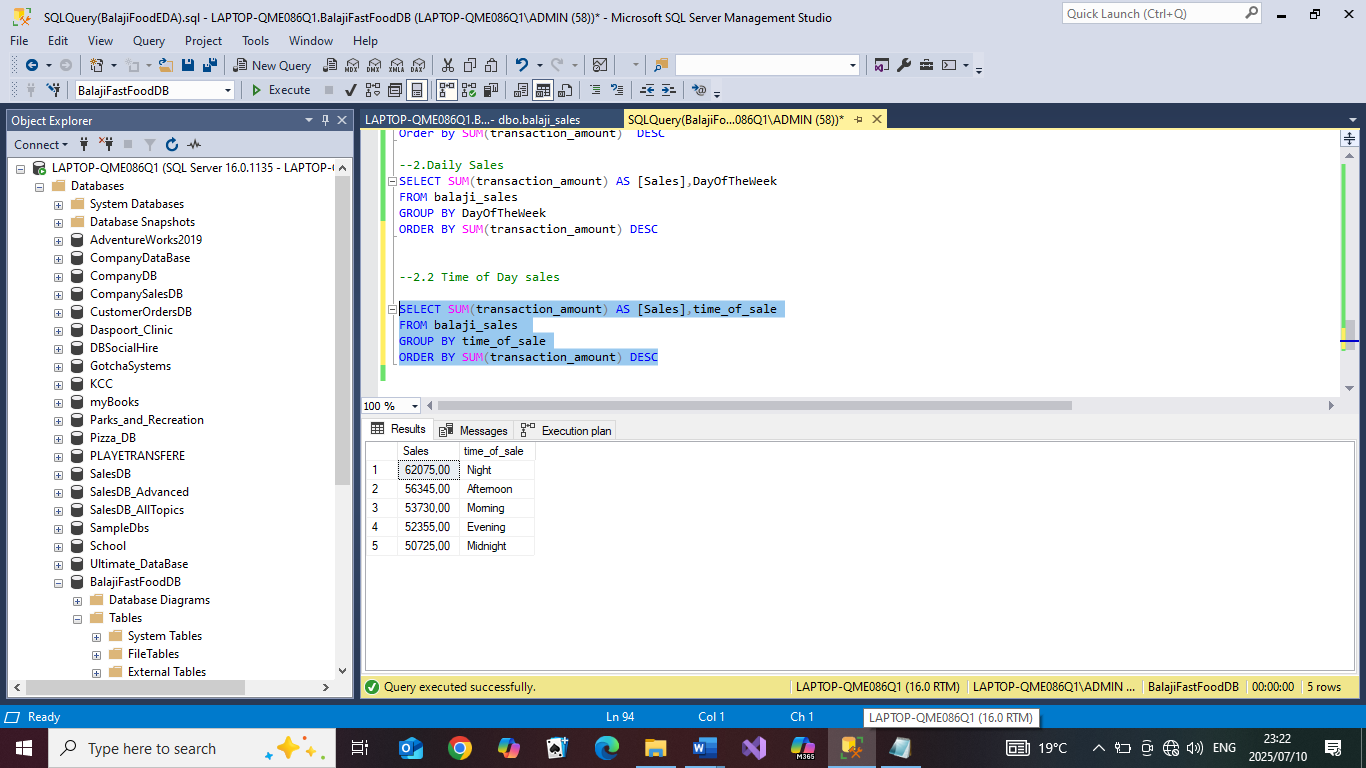
SELECT SUM(transaction\_amount) AS [Sales],time\_of\_sale

FROM balaji\_sales

GROUP BY time\_of\_sale

ORDER BY SUM(transaction\_amount) DESC

results



* Analysis: Looking at other factors not time bound that might affect sales

-Gender: Looking at gender and seeing which gender buys more

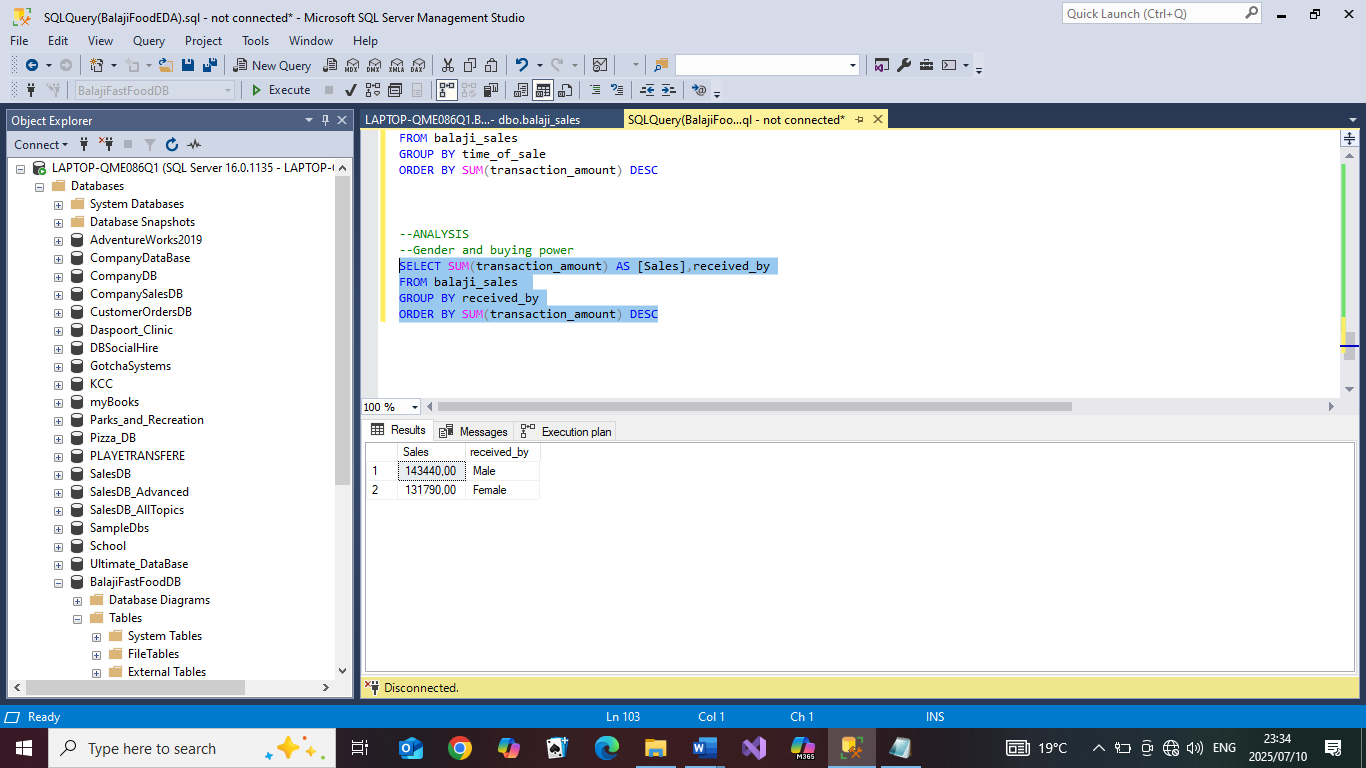
Code:

SELECT SUM(transaction\_amount) AS [Sales],received\_by

FROM balaji\_sales

GROUP BY received\_by

ORDER BY SUM(transaction\_amount) DESC



-Transaction type and its’ possible effect on sales

Code

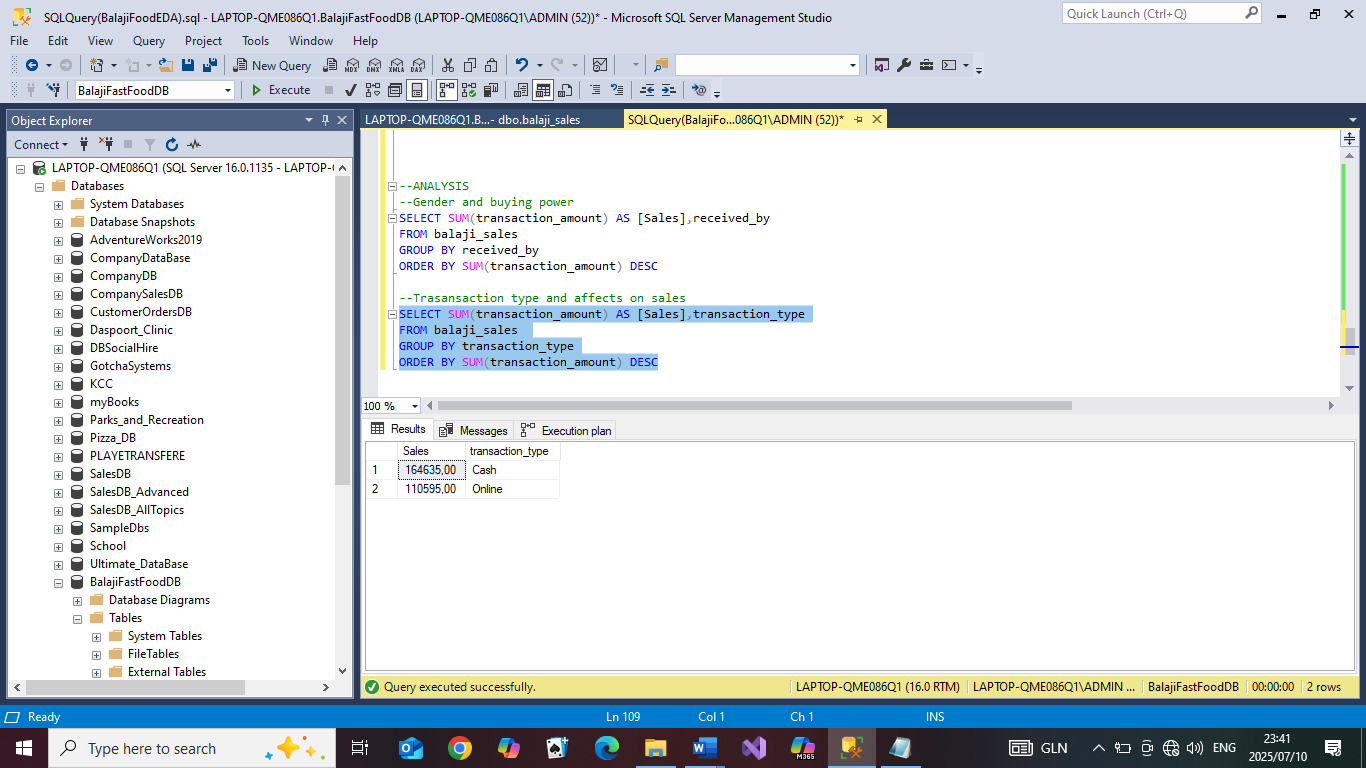
SELECT SUM(transaction\_amount) AS [Sales],transaction\_type

FROM balaji\_sales

GROUP BY transaction\_type

ORDER BY SUM(transaction\_amount) DESC

Results:



-Foods and drink types, and how they generated sales: Looking the top foods and top

drinks according to sales

Code:

SELECT SUM(transaction\_amount) as [Sales],item\_name

FROM balaji\_sales

WHERE item\_type='Fastfood'

GROUP BY item\_name

ORDER BY SUM(transaction\_amount) DESC

SELECT SUM(transaction\_amount) as [Sales],item\_name

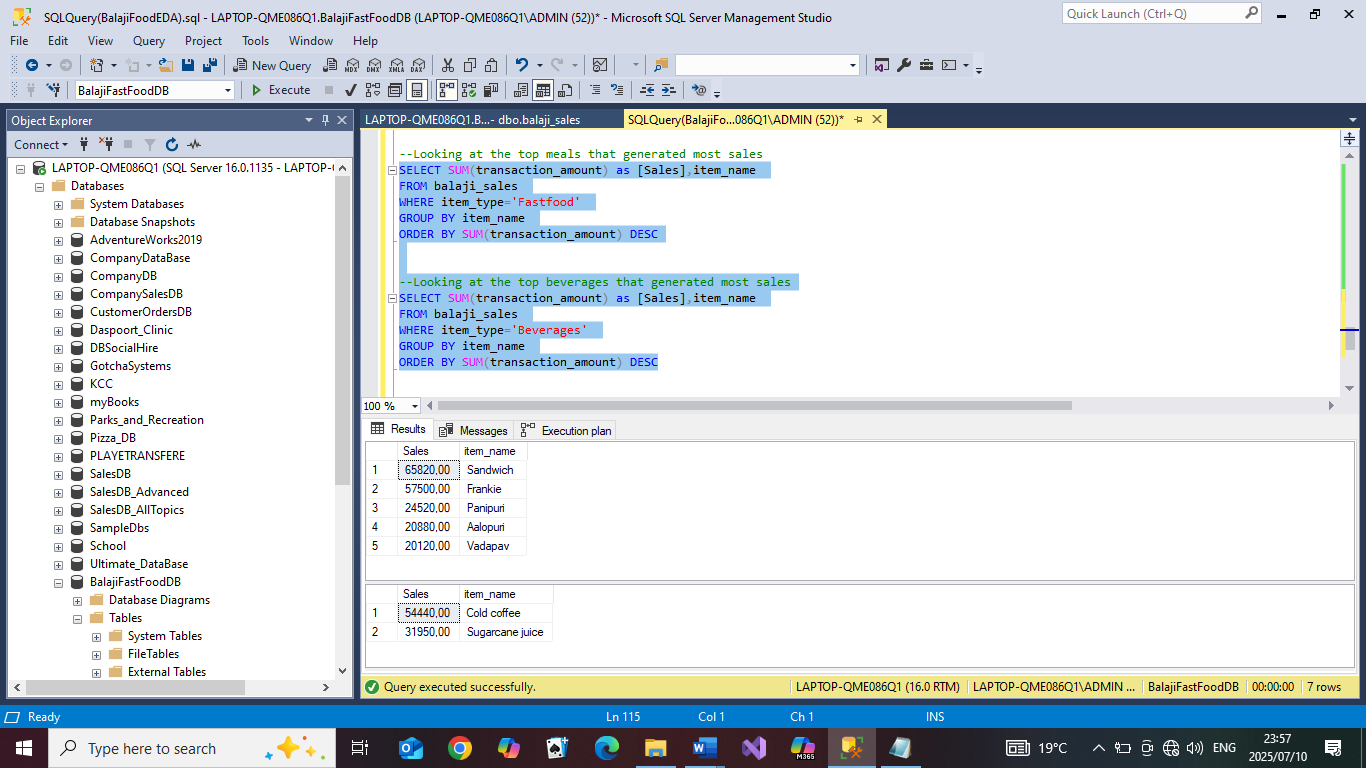
FROM balaji\_sales

WHERE item\_type='Beverages'

GROUP BY item\_name

ORDER BY SUM(transaction\_amount) DESC

Results:



-Looking at the top foods and beverages that were bought the most over the year

Code:

SELECT SUM(quantity) as [Items Sold],item\_name

FROM balaji\_sales

WHERE item\_type='Fastfood'

GROUP BY item\_name

ORDER BY SUM(quantity) DESC

SELECT SUM(quantity) as [Items Sold],item\_name

FROM balaji\_sales

WHERE item\_type='Beverages'

GROUP BY item\_name

ORDER BY SUM(quantity) DESC

