Blinkit Analysis

- See all the data imported:

```
SELECT * FROM blinkit;
```

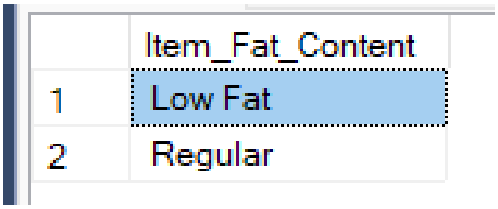
- **DATA CLEANING:**

  Cleaning the Item_Fat_Content field ensures data consistency and accuracy in analysis. The presence of multiple variations of the same category (e.g., LF, low fat vs. Low Fat) can cause issues in reporting, aggregations, and filtering. By standardizing these values, we improve data quality, making it easier to generate insights and maintain uniformity in our datasets.

```
UPDATE blinkit
SET Item_Fat_Content =
    CASE
        WHEN Item_Fat_Content IN ('LF', 'low fat') THEN 'Low Fat'
        WHEN Item_Fat_Content = 'reg' THEN 'Regular'
        ELSE Item_Fat_Content
          END;
```

After executing this query check the data has been cleaned or not using below query

```
SELECT DISTINCT Item_Fat_Content FROM blinkit;
```

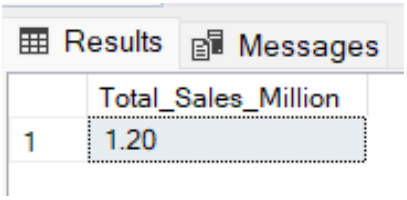


	Item_Fat_Content
1	Low Fat
2	Regular

A. KPI's

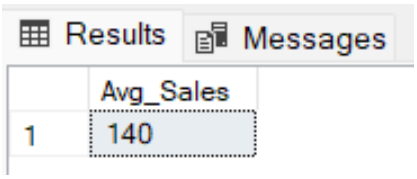
1. TOTAL SALES:

```
SELECT CAST(SUM(Total_Sales) / 1000000.0 AS DECIMAL(10,2)) AS
Total_Sales_Million
FROM blinkit;
```



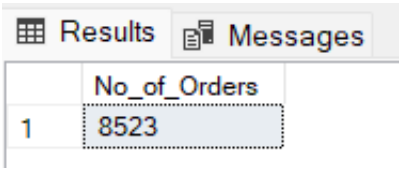
2. AVERAGE SALES

```
SELECT CAST(AVG(Total_Sales) AS INT) AS Avg_Sales
FROM blinkit;
```



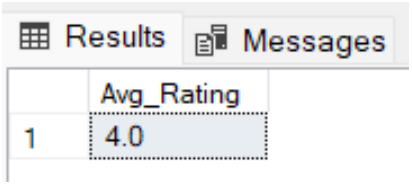
3. NO OF ITEMS

```
SELECT COUNT(*) AS No_of_Orders
FROM blinkit;
```



4. AVG RATING

```
SELECT CAST(AVG(Rating) AS DECIMAL(10,1)) AS Avg_Rating
FROM blinkit;
```



B. Total Sales by Fat Content:

```
SELECT Item_Fat_Content, CAST(SUM(Total_Sales) AS DECIMAL(10,2)) AS
Total_Sales
FROM blinkit
GROUP BY Item_Fat_Content
```

Results Messages

	Item_Fat_Content	Total_Sales
1	Low Fat	776319.68
2	Regular	425361.80

C. Total Sales by Item Type

```
SELECT Item_Type, CAST(SUM(Total_Sales) AS DECIMAL(10,2)) AS Total_Sales
FROM blinkit
GROUP BY Item_Type
ORDER BY Total_Sales DESC
```

Results Messages

	Item_Type	Total_Sales
1	Fruits and Vegetables	178124.08
2	Snack Foods	175433.92
3	Household	135976.53
4	Frozen Foods	118558.88
5	Dairy	101276.46
6	Canned	90706.73
7	Baking Goods	81894.74
8	Health and Hygiene	68025.84
9	Meat	59449.86
10	Soft Drinks	58514.16
11	Breads	35379.12
12	Hard Drinks	29334.68
13	Others	22451.89
14	Starchy Foods	21880.03
15	Breakfast	15596.70
16	Seafood	9077.87

D. Fat Content by Outlet for Total Sales

```
SELECT Outlet_Location_Type,
    SUM(CASE WHEN `Item Fat Content` = 'Low Fat' THEN `Total Sales` ELSE 0 END) AS Low_Fat,
    SUM(CASE WHEN `Item Fat Content` = 'Regular' THEN `Total Sales` ELSE 0 END) AS Regular
FROM blinkit
GROUP BY Outlet_Location_Type
ORDER BY Outlet_Location_Type;
```

Results | Messages

	Outlet_Location_Type	Low_Fat	Regular
1	Tier 1	215047.91	121349.90
2	Tier 2	254464.77	138685.87
3	Tier 3	306806.99	165326.03

E. Total Sales by Outlet Establishment

```
SELECT Outlet_Establishment_Year, CAST(SUM(Total_Sales) AS DECIMAL(10,2))
AS Total_Sales
FROM blinkit
GROUP BY Outlet_Establishment_Year
ORDER BY Outlet_Establishment_Year
```

Results | Messages

	Outlet_Establishment_Year2	Total_Sales
1	1998	204522.26
2	2000	131809.02
3	2010	132113.37
4	2011	78131.56
5	2012	130476.86
6	2015	130942.78
7	2017	133103.91
8	2020	129103.96
9	2022	131477.77

F. Percentage of Sales by Outlet Size

```
SELECT
    Outlet_Size,
    CAST(SUM(Total_Sales) AS DECIMAL(10,2)) AS Total_Sales,
    CAST((SUM(Total_Sales) * 100.0 / SUM(SUM(Total_Sales)) OVER()) AS
DECIMAL(10,2)) AS Sales_Percentage
FROM blinkit
GROUP BY Outlet_Size
ORDER BY Total_Sales DESC;
```

Query Explanation:

Outlet_Size: This column represents the size category of the outlet (e.g., Small, Medium, Large).

CAST(SUM(Total_Sales) AS DECIMAL(10,2)) AS Total_Sales:

- **SUM(Total_Sales)**: Calculates the total sales for each Outlet_Size.
- **CAST(... AS DECIMAL(10,2))**: Formats the resulting sum to a decimal number with two decimal places for precision.

CAST((SUM(Total_Sales) * 100.0 / SUM(SUM(Total_Sales)) OVER()) AS DECIMAL(10,2)) AS Sales_Percentage:

- **SUM(Total_Sales) * 100.0**: Multiplies the total sales of the current Outlet_Size by 100 to prepare for percentage calculation.
- **SUM(SUM(Total_Sales)) OVER()**:
    - **SUM(Total_Sales)**: Within the GROUP BY context, this computes the total sales for each Outlet_Size.
    - **SUM(...) OVER()**: The outer SUM combined with the OVER() clause calculates the grand total of all Total_Sales across all outlet sizes without collapsing the result set.
- **SUM(Total_Sales) * 100.0 / SUM(SUM(Total_Sales)) OVER()**: Divides the total sales of the current Outlet_Size by the grand total sales and multiplies by 100 to get the percentage contribution of each outlet size to the overall sales.
- **CAST(... AS DECIMAL(10,2))**: Formats the resulting percentage to two decimal places.

Results | Messages

	Outlet_Size	Total_Sales	Sales_Percentage
1	Medium	507895.73	42.27
2	Small	444794.17	37.01
3	High	248991.58	20.72

G. Sales by Outlet Location

```
SELECT Outlet_Location_Type, CAST(SUM(Total_Sales) AS DECIMAL(10,2)) AS
Total_Sales
FROM blinkit
GROUP BY Outlet_Location_Type
ORDER BY Total_Sales DESC
```

Results | Messages

	Outlet_Location_Type	Total_Sales
1	Tier 3	472133.03
2	Tier 2	393150.64
3	Tier 1	336397.81

H. All Metrics by Outlet Type:

```
SELECT Outlet_Type,
            CAST(SUM(Total_Sales) AS DECIMAL(10,2)) AS Total_Sales,
            CAST(AVG(Total_Sales) AS DECIMAL(10,0)) AS Avg_Sales,
            COUNT(*) AS No_Of_Items,
            CAST(AVG(Rating) AS DECIMAL(10,2)) AS Avg_Rating,
            CAST(AVG(Item_Visibility) AS DECIMAL(10,2)) AS Item_Visibility
FROM blinkit
GROUP BY Outlet_Type
ORDER BY Total_Sales DESC
```

Results | Messages

	Outlet_Type	Total_Sales	Avg_Sales	No_Of_Items	Avg_Rating	Item_Visibility
1	Supermarket Type1	787549.89	141	5577	3.96	0.06
2	Grocery Store	151939.15	140	1083	3.99	0.10
3	Supermarket Type2	131477.77	142	928	3.97	0.06
4	Supermarket Type3	130714.67	140	935	3.95	0.06