BLINKIT SALES ANALYSIS

Business Requirement:

The goal was to identify high-performing products, understand regional sales trends, and key revenue metrics. Insights from the analysis will influence data-driven decisions in marketing, inventory, and resource allocation.

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Data Cleaning

▶ The column "Item_fat_content" contains inconsistent product categories. For example, the low-fat category is mentioned as "LF" or "low fat" or "Low Fat", and the regular category is mentioned as "reg" or "Regular".

▶ Unifying the column into two main categories, "Low Fat" and "Regular", is crucial to avoid errors in reporting, aggregations, and filtering operations.

Query:

```sql
SET SQL_SAFE_UPDATES = 0;
UPDATE blinkit_data
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;
SET SQL_SAFE_UPDATES = 1;
SELECT DISTINCT(Item_Fat_Content) FROM blinkit_data;
```

Result:

Result Grid	Filter
Item_Fat_Content	
▶ Regular	
Low Fat	

KPI's

1. Total revenue

```sql
SELECT CAST(SUM(total_sales) / 1000000.0 AS DECIMAL (10 , 2 )) AS Total_Revenue
FROM blinkit_data;
```

Result Grid	
	Total_Revenue
▶	1.20

2. Average revenue per sale

```sql
SELECT ROUND(AVG(Total_Sales)) AS Avg_revenue
FROM blinkit_data;
```

Result Grid	
	Avg_revenue
▶	141

3. Number of items sold

```sql
SELECT COUNT(*) AS No_of_items_sold
FROM blinkit_data;
```

Result Grid	
	No_of_items_sold
▶	8523

4. Average customer rating

```sql
SELECT ROUND(AVG(Rating), 1) AS Avg_Rating
FROM blinkit_data;
```

Result Grid	
	Avg_Rating
▶	4.0

Variations in Fat Content

1. Impact of fat content on total sales

```sql
SELECT Item_Fat_Content, CAST(SUM(Total_Sales) AS DECIMAL (10 , 2 )) AS Total_Revenue,
ROUND((SUM(Total_Sales)*100 /SUM(SUM(Total_Sales)) OVER()),2) AS Sales_Percentage
FROM blinkit_data
GROUP BY Item_Fat_Content
ORDER BY 2 DESC;
```

Item_Fat_Content	Total_Revenue	Sales_Percentage
Low Fat	776319.68	64.6
Regular	425361.80	35.4

Low fat > Regular

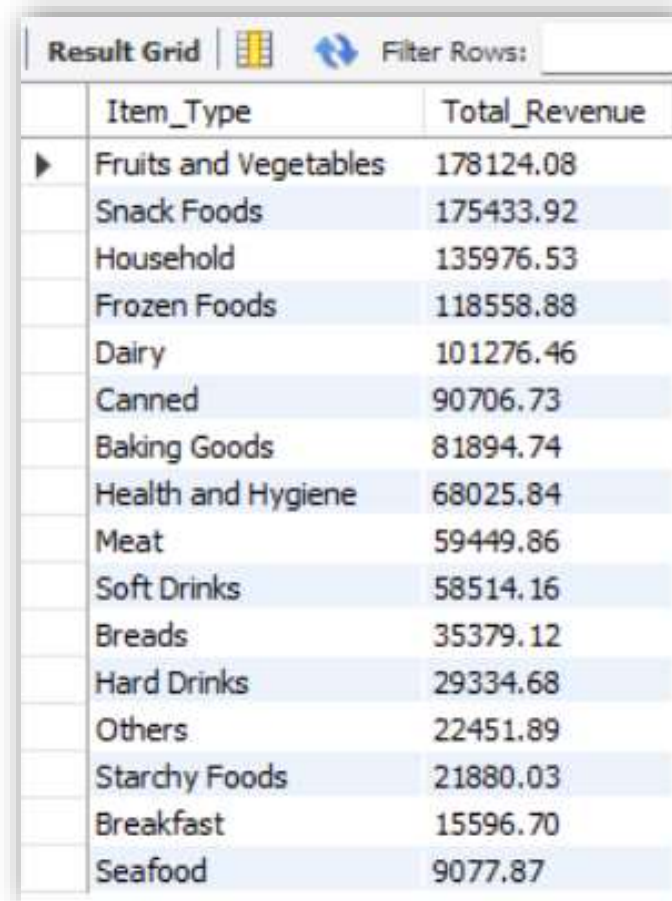## 2. Comparing total sales across different outlets, segmented by fat content

```sql
SELECT
    Outlet_Location_Type,
    ROUND(SUM(CASE WHEN Item_Fat_Content = 'Low Fat' THEN Total_Sales END),2) AS 'Low Fat',
    ROUND(SUM(CASE WHEN Item_Fat_Content = 'Regular' THEN Total_Sales END),2) AS 'Regular'
FROM blinkit_data
GROUP BY Outlet_Location_Type
ORDER BY Outlet_Location_Type;
```

Outlet_Location_Type	Low Fat	Regular
Tier 1	215047.91	121349.9
Tier 2	254464.77	138685.87
Tier 3	306806.99	165326.03

Tier 3 > Tier 2 > Tier 1

Performance of different item types in terms of total sales

```sql
SELECT Item_Type, CAST(SUM(Total_Sales) AS DECIMAL (10 , 2 )) AS Total_Revenue
FROM blinkit_data
GROUP BY Item_Type
ORDER BY 2 DESC;
```

Result Grid	Filter Rows:	
	Item_Type	Total_Revenue
▶	Fruits and Vegetables	178124.08
	Snack Foods	175433.92
	Household	135976.53
	Frozen Foods	118558.88
	Dairy	101276.46
	Canned	90706.73
	Baking Goods	81894.74
	Health and Hygiene	68025.84
	Meat	59449.86
	Soft Drinks	58514.16
	Breads	35379.12
	Hard Drinks	29334.68
	Others	22451.89
	Starchy Foods	21880.03
	Breakfast	15596.70
	Seafood	9077.87

Outlet age & size

1. Impact of the age of the outlet on total sales

```sql
SELECT
    Outlet_Establishment_Year,
    ROUND(SUM(Total_Sales), 2) AS Total_Revenue
FROM blinkit_data
GROUP BY Outlet_Establishment_Year
ORDER BY 1;
```

Result Grid	Filter Rows:
Outlet_Establishment_Year	Total_Revenue
1998	204522.26	→ Highest revenue
2000	131809.02
2010	132113.37
2011	78131.56	→ Lowest revenue
2012	130476.86
2015	130942.78
2017	133103.91
2020	129103.96
2022	131477.77

2. Correlation between outlet size and total sales

```sql
SELECT
    Outlet_Size,
    ROUND(SUM(Total_Sales), 2) AS Total_Revenue,
    ROUND((SUM(Total_Sales)*100 /SUM(SUM(Total_Sales)) OVER()),2) AS Sales_Percentage
FROM blinkit_data
GROUP BY Outlet_Size
ORDER BY 2 DESC;
```

Result Grid	Filter Rows:	
Outlet_Size	Total_Revenue	Sales_Percentage
Medium	507895.73	42.27
Small	444794.17	37.01
High	248991.58	20.72

Medium > Small > High

Comprehensive breakdown of key metrics

Total sales, average sales, number of items sold, and average rating, broken down by different outlet types

```sql
SELECT
    Outlet_Type,
    ROUND(SUM(Total_Sales), 0) AS Total_Revenue,
    ROUND(AVG(Total_Sales), 0) AS Avg_Sales,
    COUNT(*) AS Order_count,
    ROUND(AVG(Rating),2) AS Avg_Rating
FROM blinkit_data
GROUP BY Outlet_Type
ORDER BY Total_Revenue DESC;
```

Result Grid		Filter Rows:		Export:	Wrap Cell Content
Outlet_Type	Total_Revenue	Avg_Sales	Order_count	Avg_Rating
Supermarket Type1	787550	141	5577	3.95
Grocery Store	151939	140	1083	3.98
Supermarket Type2	131478	142	928	3.95
Supermarket Type3	130715	140	935	3.95

Supermarket Type 1 > Grocery store > Supermarket Type 2 & 3

Business Insights:

- **Overall Performance**: Blinkit generated **$1.20 million** in revenue from **8,523 items** sold, averaging **$141 per transaction**. While an average rating of 4.0 reflects a generally positive customer experience, there is potential to improve the rating beyond 4.2.

- **Product Preferences**: **Low-fat items** emerged as more popular, indicating customer preference for healthier options.

- **Geographic Trends**:
  * **Tier-3 outlets** (presumably in small towns and rural areas) delivered the **highest revenue**, followed by Tier-2.
  * **Tier-1 outlets** recorded the **lowest revenue**, suggesting a need to examine customer needs, market reach, and competitor impact.

- **Outlet Establishment Year:**
  * Outlets established **earlier performed well**.
  * Outlets **opened in 2011** showed the **lowest revenue**, while those opened from **2012 onwards** have shown **steady** performance.

▪ **Outlet Size:**

   * **Medium-sized** outlets were the top contributors, generating **42.27%** of revenue. This trend suggests that customers may view medium-sized outlets as offering the best balance between quality and affordability.

   * **Large-sized** outlets contributed only **20.72%**, possibly due to higher pricing or customer perception.

▪ **Outlet Type:**

   * **Type 1 Supermarkets** demonstrated outstanding performance, contributing **nearly 66%** of the total revenue **($1,201,682)**.

   * In comparison, Grocery stores and Supermarkets Type 2 & 3 contributed **12%** and **11%** each, respectively.