Blinket Data Analysis using SQL

This project analyzes Blinket sales, outlet performance, and product insights using SQL queries. It includes data cleaning, aggregation, and performance comparisons across various outlet and product categories.

1. Data Cleaning – Standardizing Item_Fat_Content

```
SET SQL_SAFE_UPDATES = 0;
UPDATE blinket_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;
SELECT * FROM blinket_data;
```

Item_Fat_Content	Item_Identifier	Item_Type	Outlet_Establishment_Year	Outlet_Identifier	Outlet_Location_Type	Outlet_Size	Outlet_Type	Item_Visibility	Item_Weight	Total_Sales	Rating
Low Fat	NCU05	Health and Hygiene	2011	OUT010	Tier 3	Small	Grocery Store	0.098312421	11.8	81.4618	5
Regular	FDP01	Breakfast	2011	OUT010	Tier 3	Medium	Grocery Store	0.105994654	20.75	150.568	5
Low Fat	FDR48	Baking Goods	2011	OUT010	Tier 3	Medium	Grocery Store	0.220111117	11.65	153.002	5
Low Fat	FDO16	Frozen Foods	2011	OUT010	Tier 3	Medium	Grocery Store	0.02528802	5.48	83.325	5
Low Fat	FDE53	Frozen Foods	2011	OUT010	Tier 3	Medium	Grocery Store	0.044991876	10.895	107.228	5

2. Total Revenue Calculation

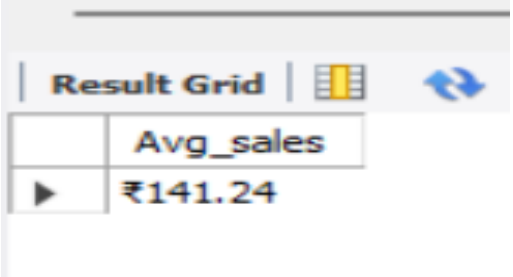
```
SELECT CONCAT('₹', FORMAT(SUM(Total_Sales), 2)) AS Revenue
FROM blinket_data;
```

Result Grid | Filter Rc

Revenue
₹997,159.22

3. Average Sales Calculation

```
SELECT CONCAT('₹', FORMAT(AVG(Total_Sales), 2)) AS Avg_Sales
FROM blinket_data;
```

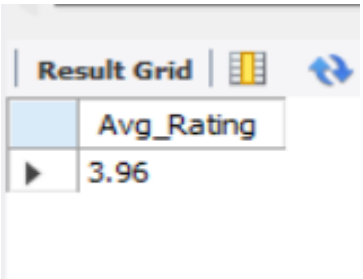


Result Grid

	Avg_sales
▶	₹141.24

4. Average Rating Calculation

```
SELECT CAST(AVG(Rating) AS DECIMAL(7, 2)) AS Avg_Rating
FROM blinket_data;
```

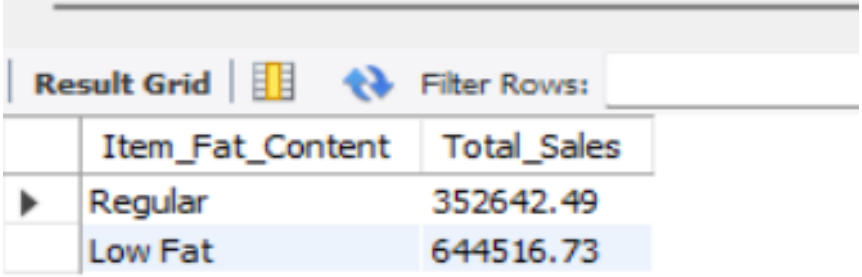


Result Grid

	Avg_Rating
▶	3.96

5. Total Sales by Item_Fat_Content

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

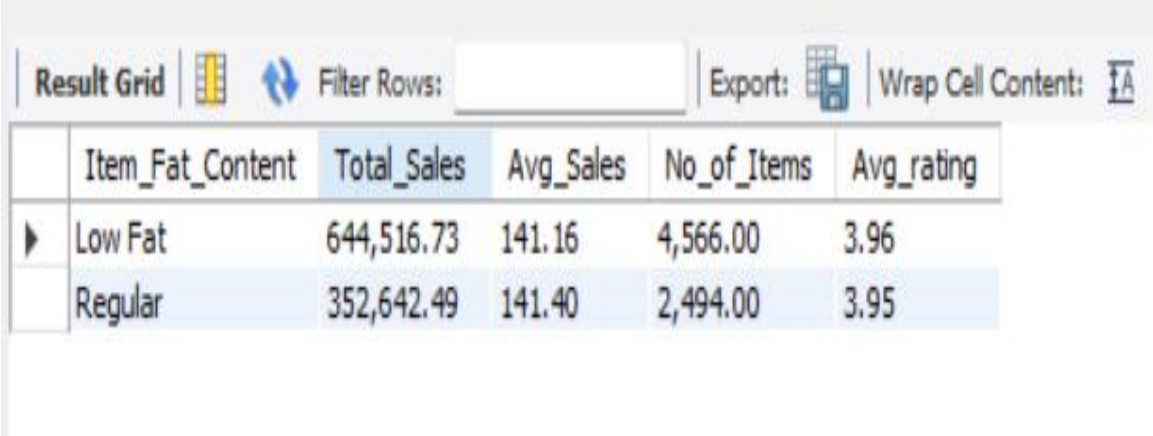


Result Grid Filter Rows:

	Item_Fat_Content	Total_Sales
▶	Regular	352642.49
	Low Fat	644516.73

6. Sales Summary by Item_Fat_Content

```
SELECT Item_Fat_Content,
FORMAT(SUM(Total_Sales), 2) AS Total_Sales,
FORMAT(AVG(Total_Sales), 2) AS Avg_Sales,
FORMAT(COUNT(*), 2) AS No_of_Items,
FORMAT(AVG(Rating), 2) AS Avg_Rating
FROM blinket_data
GROUP BY Item_Fat_Content
ORDER BY Total_Sales DESC;
```



Item_Fat_Content	Total_Sales	Avg_Sales	No_of_Items	Avg_rating
Low Fat	644,516.73	141.16	4,566.00	3.96
Regular	352,642.49	141.40	2,494.00	3.95

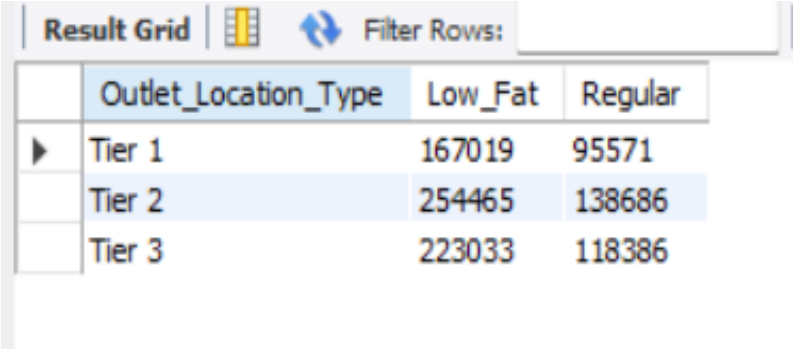
7. Top 5 Item Types by Total Sales

```
SELECT Item_Type,
FORMAT(SUM(Total_Sales), 2) AS Total_Sales,
FORMAT(AVG(Total_Sales), 2) AS Avg_Sales,
FORMAT(COUNT(*), 2) AS No_of_Items,
FORMAT(AVG(Rating), 2) AS Avg_Rating
FROM blinket_data
GROUP BY Item_Type
ORDER BY Total_Sales DESC
LIMIT 5;
```

Item_Type	Total_Sales	Avg_Sales	No_of_Items	Avg_rating
Frozen Foods	99,961.88	139.22	718.00	3.96
Dairy	84,526.49	149.34	566.00	3.97
Canned	75,053.00	139.24	539.00	3.99
Seafood	7,397.56	145.05	51.00	3.88
Baking Goods	67,588.11	126.10	536.00	3.98

8. Comparison of Low Fat vs Regular Sales by Location

```
SELECT Outlet_Location_Type,
ROUND(IFNULL(SUM(CASE WHEN Item_Fat_Content = 'Low Fat' THEN Total_Sales END),
0)) AS Low_Fat,
ROUND(IFNULL(SUM(CASE WHEN Item_Fat_Content = 'Regular' THEN Total_Sales END),
0)) AS Regular
FROM blinket_data
GROUP BY Outlet_Location_Type
ORDER BY Outlet_Location_Type;
```



Result Grid | Filter Rows:

Outlet_Location_Type	Low_Fat	Regular
Tier 1	167019	95571
Tier 2	254465	138686
Tier 3	223033	118386

9. Sales and Rating by Establishment Year

```
SELECT Outlet_Establishment_Year,
FORMAT(SUM(Total_Sales), 2) AS Total_Sales,
FORMAT(AVG(Total_Sales), 2) AS Avg_Sales,
FORMAT(COUNT(*), 2) AS No_of_Items,
FORMAT(AVG(Rating), 2) AS Avg_Rating
FROM blinket_data
GROUP BY Outlet_Establishment_Year
ORDER BY Total_Sales DESC;
```

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

Outlet_Establishment_Year	Total_Sales	Avg_Sales	No_of_Items	Avg_rating
2011	78,131.56	140.78	555.00	3.97
2017	133,103.91	143.12	930.00	3.94
2010	132,113.37	142.06	930.00	3.95
2000	131,809.02	141.43	932.00	3.94
2022	131,477.77	141.68	928.00	3.95
2015	130,942.78	140.95	929.00	3.96
2012	130,476.86	140.30	930.00	3.97

10. Sales Percentage by Outlet Size

```
SELECT Outlet_Size,
FORMAT(SUM(Total_Sales), 2) AS Total_Sales,
CONCAT(
    ROUND(SUM(Total_Sales) * 100 / (SELECT SUM(Total_Sales) FROM
blinket_data), 2),
    '%'
) AS Sales_Percent
FROM blinket_data
GROUP BY Outlet_Size
ORDER BY SUM(Total_Sales) DESC;
```

Outlet_Size	Total_Sales	Sales_Percent
Medium	377,181.05	37.83%
Small	370,986.59	37.2%
High	248,991.58	24.97%

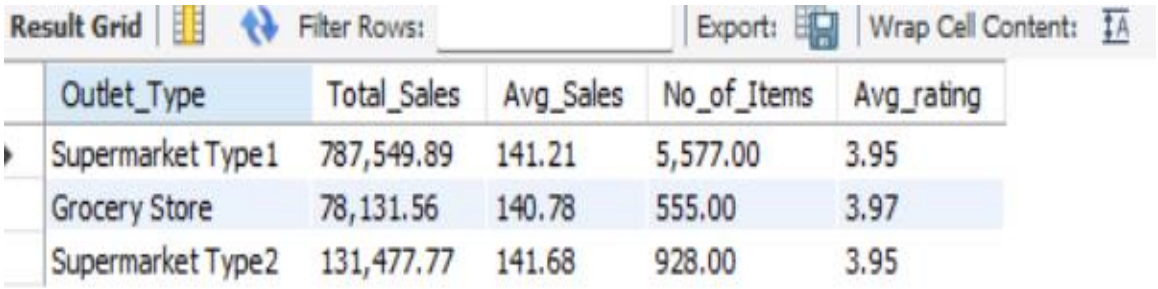
11. Outlet Location Type Performance

```
SELECT Outlet_Location_Type,
FORMAT(SUM(Total_Sales), 2) AS Total_Sales,
FORMAT(AVG(Total_Sales), 2) AS Avg_Sales,
FORMAT(COUNT(*), 2) AS No_of_Items,
FORMAT(AVG(Rating), 2) AS Avg_Rating
FROM blinket_data
GROUP BY Outlet_Location_Type
ORDER BY Total_Sales DESC;
```

Outlet_Location_Type	Total_Sales	Avg_Sales	No_of_Items	Avg_rating
Tier 2	393,150.64	141.17	2,785.00	3.96
Tier 3	341,418.35	141.37	2,415.00	3.95
Tier 1	262,590.23	141.18	1,860.00	3.96

12. Outlet Type Analysis

```
SELECT Outlet_Type,
FORMAT(SUM(Total_Sales), 2) AS Total_Sales,
FORMAT(AVG(Total_Sales), 2) AS Avg_Sales,
FORMAT(COUNT(*), 2) AS No_of_Items,
FORMAT(AVG(Rating), 2) AS Avg_Rating
FROM blinket_data
GROUP BY Outlet_Type
ORDER BY Total_Sales DESC;
```



Outlet_Type	Total_Sales	Avg_Sales	No_of_Items	Avg_rating
Supermarket Type1	787,549.89	141.21	5,577.00	3.95
Grocery Store	78,131.56	140.78	555.00	3.97
Supermarket Type2	131,477.77	141.68	928.00	3.95