Business Requirement

To conduct a comprehensive analysis of grocery sales data, customer satisfaction, and inventory distribution to identify key insights and opportunities for optimization using various KPIs and visualisations in Power BI.

KPI's Requirements

Total Sales: The overall revenue generated from all items sold

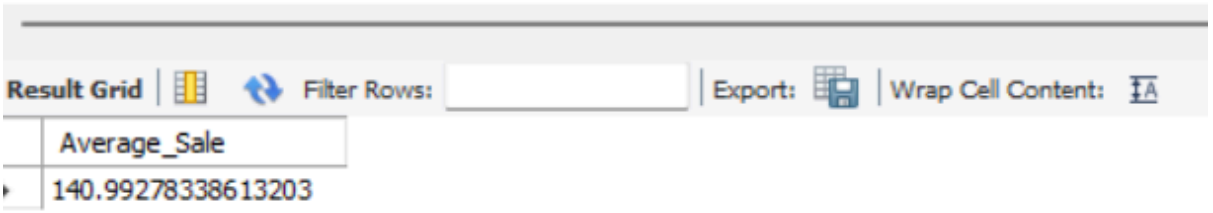
```
1 •   SELECT SUM(Sales) FROM grocery_data;
```

Result Grid | Filter Rows: | Export:

SUM(Sales)
1201681.4928000034

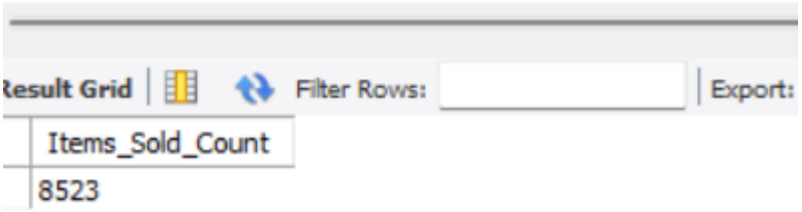
Average Sales: The average revenue per sale

```
6
7 •   SELECT AVG(Sales) AS Average_Sale FROM grocery_data;
```



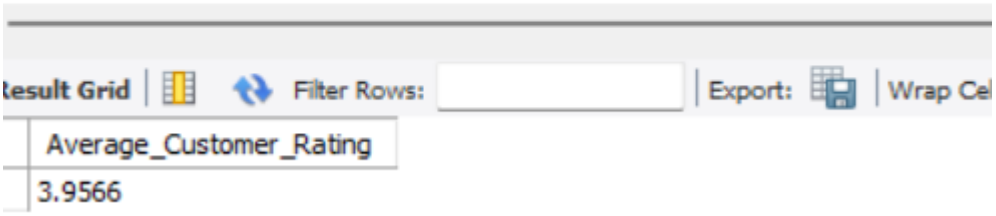
Number of Items: The total count of different items sold

```
1 •   SELECT COUNT(*) as Items_Sold_Count
2     FROM grocery_data;
```



Average Rating: The average customer rating for items sold.

```
16
17 •  SELECT AVG(Rating) AS Average_Customer_Rating
18     FROM grocery_data;
```



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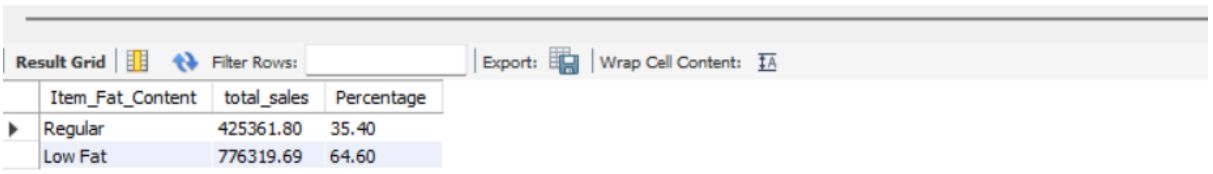
Average_Customer_Rating
3.9566

Charts Requirements

Total % Sales by Fat Content (Donut chart)

```
1 •  SELECT Item_Fat_Content, CAST(SUM(Sales) AS DECIMAL(10,2)) as total_sales,
2    CAST(SUM(Sales) * 100 / (SELECT SUM(Sales) from grocery_data) AS DECIMAL(10,2)) AS Percentage
3    FROM grocery_data
4    GROUP BY Item_Fat_Content;
5
```

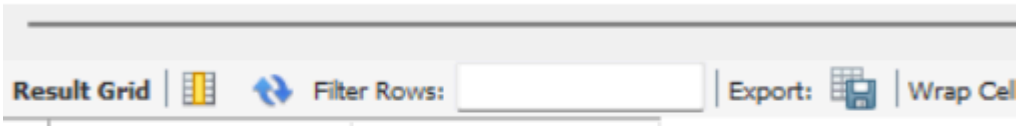


Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Item_Fat_Content	total_sales	Percentage
Regular	425361.80	35.40
Low Fat	776319.69	64.60

Total Sales by Item Type (Bar Chart)

```
28 •    SELECT Item_Type, SUM(Sales) as Total_Sales
29      FROM grocery_data
30      GROUP BY Item_Type;
31
```



Item_Type	Total_Sales
Fruits and Vegetables	178124.08099999995
Health and Hygiene	68025.83880000001
Frozen Foods	118558.88140000009
Canned	90706.72899999999
Soft Drinks	58514.16699999999
Household	135976.52539999998
Snack Foods	175433.9224000002
Meat	59449.86379999999
Breads	35379.119800000015
Hard Drinks	29334.680599999996
Others	22451.8916
Dairy	101276.46159999995
Breakfast	15596.696600000001
Baking Goods	81894.73640000001
Seafood	9077.869999999999
Starchy Foods	21880.02739999999

Fat Content by Outlet for Total Sales (Column Chart)

```
33 •    SELECT Item_Fat_Content,
34      Outlet_Location_Type,
35      SUM(Sales) As Total_Sales
36      FROM grocery_data
37      GROUP BY Item_Fat_Content,
38      Outlet_Location_Type
39      ORDER BY Outlet_Location_Type ASC;
40
```

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Item_Fat_Content	Outlet_Location_Type	Total_Sales
Regular	Tier 1	121349.89940000001
Low Fat	Tier 1	215047.9126000001
Low Fat	Tier 2	254464.77940000014
Regular	Tier 2	138685.86819999994
Low Fat	Tier 3	306806.9964000001
Regular	Tier 3	165326.0368

Total Sales by Outlet Establishment (Line Chart)

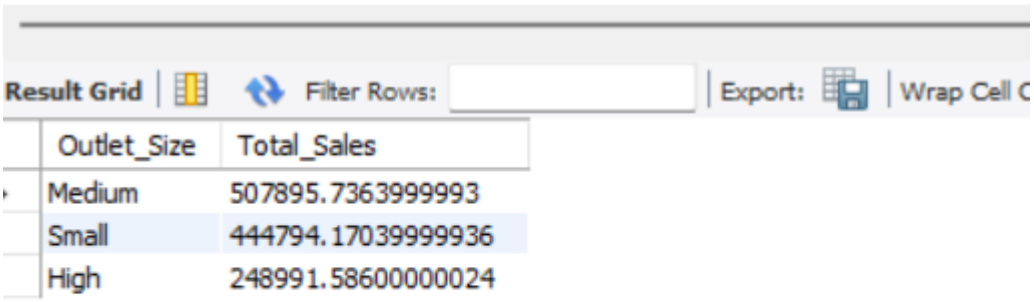
```
41 •    SELECT Outlet_Establishment_Year, SUM(Sales) as Total_Sales
42      FROM grocery_data
43      GROUP BY Outlet_Establishment_Year;
44
45
```

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

Outlet_Establishment_Year	Total_Sales
2012	130476.85979999998
2022	131477.77639999994
2016	132113.36980000007
2014	131809.01560000007
2015	130942.7802
2020	129103.96039999987
2011	78131.56659999998
2018	204522.25700000025
2017	133103.9069999999

Total Sales By Outlet Size - Donut chart

```
47      -- Total Sales By Outlet Size
48 •    SELECT Outlet_Size, SUM(Sales) as Total_Sales
49      FROM grocery_data
50      GROUP BY Outlet_Size;
51
52
```



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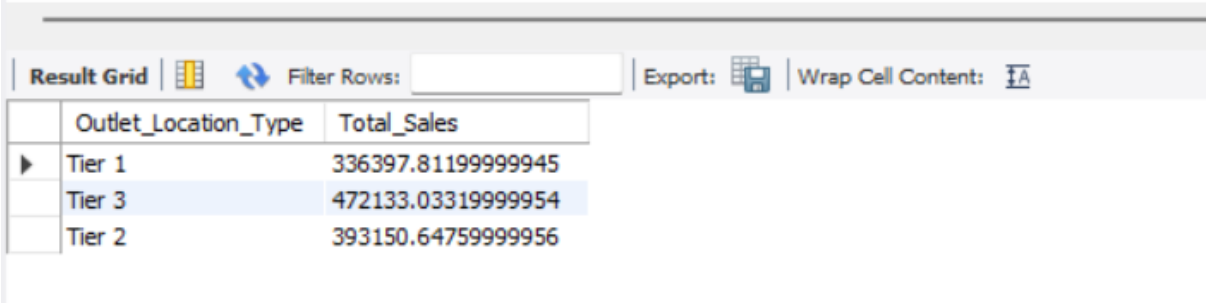
Outlet_Size	Total_Sales
Medium	507895.7363999993
Small	444794.17039999936
High	248991.58600000024

Sales By Outlet Location - Funnel Map

```
53 •    SELECT Outlet_Location_Type, SUM(Sales) as Total_Sales
54      FROM grocery_data
55      GROUP BY Outlet_Location_Type
56
```



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

Outlet_Location_Type	Total_Sales
Tier 1	336397.81199999945
Tier 3	472133.03319999954
Tier 2	393150.64759999956

All Metrics By Outlet Type - Matrix Card

```
58 •  SELECT Outlet_Type, SUM(Sales) AS Total_Sales,
59    AVG(Sales) AS Average_Sales,
60    AVG(Rating) AS Average_Rating,
61    COUNT(*) AS Total_Items_Sold
62    FROM grocery_data
63    GROUP BY Outlet_Type;
```

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

Outlet_Type	Total_Sales	Average_Sales	Average_Rating	Total_Items_Sold
Supermarket Type1	787549.8928000013	141.21389506903375	3.9546	5577
Supermarket Type2	131477.77639999994	141.6786383620689	3.9547	928
Grocery Store	151939.149	140.29468975069253	3.9751	1083
Supermarket Type3	130714.67460000006	139.80179101604284	3.9487	935