Question 1: Standardize the values in the Item_Fat_Content column

The column Item_Fat_Content contains inconsistent values such as low fat, LF, and reg. Write a query to standardize them into proper labels (Low Fat and Regular).

SQL Query:

```
UPDATE BlinkITGroceryData

SET Item_Fat_Content =

  CASE

    WHEN Item_Fat_Content IN ('low fat','LF') THEN 'Low Fat'

    WHEN Item_Fat_Content = 'reg' THEN 'Regular'

    ELSE Item_Fat_Content

  END;

SELECT DISTINCT("Item Fat Content") FROM BlinkITGroceryData;
```

Output:

Item_Fat_Content
Regular
Low Fat

Question 2: Find the total sales from the dataset

SQL Query:

```
SELECT CAST(SUM(Total_Sales) AS INT) AS TOTAL_SALES

FROM BlinkITGroceryData;
```

Output:

TOTAL_SALES
1201681

Question 3: Find the average sales from the dataset

SQL Query:

```
SELECT CAST(AVG(Total_Sales) AS DECIMAL(10,0)) AS
AVG_SALES

FROM BlinkITGroceryData;
```

Output:

AVG_SALES
141

Question 4: Find the number of items in the dataset

SQL Query:

```
SELECT COUNT(*) AS NO_OF_ITEMS
FROM BlinkITGroceryData;
```

Output:

NO_OF_ITEMS
8523

Question 5: Find the total sales where Item Fat Content = 'Low Fat'

SQL Query:

```
SELECT CAST(SUM(Total_Sales) AS INT) AS TOTAL_SALES
FROM BlinkITGroceryData
WHERE "Item Fat Content" = 'Low Fat';
```

Output:

TOTAL_SALES
776319

Question 6: Find the total sales where Outlet Establishment Year = 2022

SQL Query:

```
SELECT CAST(SUM(Total_Sales) AS INT) AS TOTAL_SALES
FROM BlinkITGroceryData
WHERE "Outlet Establishment Year" = 2022;
```

Output:

TOTAL_SALES
131477

Question 7: Find the average rating of items

SQL Query:

```
SELECT CAST(AVG(Rating) AS DECIMAL(10,2)) AS AVG_RATING
FROM BlinkITGroceryData;
```

Output:

AVG_RATING
3.97

Question 8: Analyze sales by Item Fat Content

SQL Query:

```
SELECT Item_Fat_Content,
    CAST(SUM(Total_Sales) AS DECIMAL(10,2)) AS TOTAL_SALES,
    CAST(AVG(Total_Sales) AS DECIMAL(10,2)) AS AVG_SALES,
    CAST(AVG(Rating) AS DECIMAL(10,2)) AS AVG_RATING,
    COUNT(*) AS NO_OF_ITEMS
FROM BlinkITGroceryData
GROUP BY Item_Fat_Content
ORDER BY TOTAL_SALES DESC;
```

Output:

Item_Fat_Content	TOTAL_SALES	AVG_SALES	AVG_RATING	NO_OF_ITEMS
Low Fat	776319.68	140.71	3.97	5517
Regular	425361.80	141.50	3.97	3006

Question 9: Top 5 Item Types by sales

SQL Query:

```
SELECT Item_Type,
    CAST(SUM(Total_Sales) AS DECIMAL(10,2)) AS TOTAL_SALES,
    CAST(AVG(Total_Sales) AS DECIMAL(10,2)) AS AVG_SALES,
    CAST(AVG(Rating) AS DECIMAL(10,2)) AS AVG_RATING,
    COUNT(*) AS NO_OF_ITEMS
FROM BlinkITGroceryData
GROUP BY Item_Type
ORDER BY TOTAL_SALES DESC
LIMIT 5;
```

Output:

Item_Type	TOTAL_SALES	AVG_SALES	AVG_RATING	NO_OF_ITEMS

Fruits and Vegetables	178124.08	144.58	3.96	1232
Snack Foods	175433.92	146.19	3.95	1200
Household	135976.53	149.42	4.00	910
Frozen Foods	118558.88	138.50	3.97	856
Dairy	101276.46	148.50	3.97	682

Question 10: Analyze sales by Outlet Location Type and Item Fat Content

SQL Query:

```
SELECT Outlet_Location_Type,
    Item_Fat_Content,
    CAST(SUM(Total_Sales) AS DECIMAL(10,2)) AS TOTAL_SALES
FROM BlinkITGroceryData
GROUP BY Outlet_Location_Type, Item_Fat_Content
ORDER BY TOTAL_SALES DESC;
```

Output:

Outlet_Location_Type	Item_Fat_Content	TOTAL_SALES
Tier 3	Low Fat	306806.99
Tier 2	Low Fat	254464.77
Tier 1	Low Fat	215047.91
Tier 3	Regular	165326.87
Tier 2	Regular	138685.87
Tier 1	Regular	121349.90

Question 11: Sales by Outlet Establishment Year

SQL Query:

```
SELECT Outlet_Establishment_Year,
    CAST(SUM(Total_Sales) AS DECIMAL(10,2)) AS TOTAL_SALES
FROM BlinkITGroceryData
GROUP BY Outlet_Establishment_Year
ORDER BY TOTAL_SALES DESC;
```

Output :

Outlet_Establishment_Year	TOTAL_SALES
1998	204522.26
2017	133103.91
2010	132113.37
2000	131809.62
2022	131477.77
2015	130942.78
2012	130476.86
2020	129103.96
2011	78131.56

Question 12: Sales contribution by Outlet Size

SQL Query:

```
SELECT Outlet_Size,
    CAST(SUM(Total_Sales) AS DECIMAL(10,1)) AS TOTAL_SALES,
    CAST((SUM(Total_Sales) * 100.0 /
        (SELECT SUM(Total_Sales) FROM BlinkITGroceryData)) AS DECIMAL(10,1)) AS
SALES_PERCENTAGE
FROM BlinkITGroceryData
GROUP BY Outlet_Size
ORDER BY SALES_PERCENTAGE DESC;
```

Output:

Outlet_Size	TOTAL_SALES	SALES_PERCENTAGE
Medium	507895.7	42.3
Small	444794.2	37.0
High	248991.6	20.7

Question 13: Sales contribution by Outlet Location Type

SQL Query:

```
SELECT Outlet_Location_Type,
    CAST(SUM(Total_Sales) AS DECIMAL(10,1)) AS TOTAL_SALES,
```

```
    CAST(AVG(Total_Sales) AS DECIMAL(10,2)) AS AVG_SALES,
    CAST(AVG(Rating) AS DECIMAL(10,2)) AS AVG_RATING,
    CAST(SUM(Total_Sales)*100.0 /(SELECT SUM(Total_Sales) FROM BlinkITGroceryData) AS DECIMAL(10,2)) AS SALES_PERCENTAGE,
    COUNT(*) AS NO_OF_ITEMS
FROM BlinkITGroceryData
GROUP BY Outlet_Location_Type
ORDER BY TOTAL_SALES DESC;
```

Output:

Outlet_Location_Type	TOTAL_SALES	AVG_SALES	AVG_RATING	SALES_PERCENTAGE	NO_OF_ITEMS
Tier 3	472133.0	140.94	3.96	39.29	3350
Tier 2	393150.6	141.17	3.96	32.72	2785
Tier 1	336397.8	140.87	3.98	27.99	2388

Question 14: Sales contribution by Outlet Type

SQL Query:

```
SELECT Outlet_Type,
    CAST(SUM(Total_Sales) AS DECIMAL(10,1)) AS TOTAL_SALES,
    CAST(AVG(Total_Sales) AS DECIMAL(10,2)) AS AVG_SALES,
    CAST(AVG(Rating) AS DECIMAL(10,2)) AS AVG_RATING,
    CAST(SUM(Total_Sales)*100.0 /(SELECT SUM(Total_Sales) FROM BlinkITGroceryData) AS DECIMAL(10,2)) AS SALES_PERCENTAGE,
    COUNT(*) AS NO_OF_ITEMS
FROM BlinkITGroceryData
GROUP BY Outlet_Type
ORDER BY TOTAL_SALES DESC;
```

Output:

Outlet_Type	TOTAL_SALES	AVG_SALES	AVG_RATING	SALES_PERCENTAGE	NO_OF_ITEMS
Supermarket Type1	787549.9	141.21	3.96	65.54	5577
Grocery Store	151399.1	140.29	3.99	12.64	1083

Supermarket Type2	131477.8	141.68	3.97	10.94	928
Supermarket Type3	130714.7	139.80	3.95	10.88	935