

A blue cloud-shaped icon containing the text "SQL" in white.

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SQL PROJECT ON BLINKIT SALES ANALYSIS

SQL

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INTRODUCTION

- ★ Blinkit is a quick-commerce company delivering groceries and essentials in minutes.
- ★ This project uses SQL to analyze sales data across products, outlets, and customers.
- ★ It focuses on KPIs like **Total Sales, Average Sales, Items Sold, and Customer Ratings.**
- ★ Raw sales data is transformed into **actionable insights for business decisions.**
- ★ The study highlights **trends, patterns, and key drivers of Blinkit's performance.**

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OBJECTIVE

- ★ To identify **top-performing products** and item categories.
- ★ To analyze **sales distribution across outlets and locations**.
- ★ To measure the effect of **fat content, outlet size, and establishment year** on sales.
- ★ To study **regional trends** across Tier 1, Tier 2, and Tier 3 markets.
- ★ To deliver insights that improve **sales, marketing, and customer satisfaction**.



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BUSINESS REQUIREMENT

1. **Total Sales:** The overall revenue generated from all items sold.
2. **Average Sales:** The average revenue per sale.
3. **Number of Items:** The total count of different items sold.
4. **Average Rating:** The average customer rating for items sold.

BUSINESS REQUIREMENT

1. Total Sales by Fat Content:

Objective: Analyze the impact of fat content on total sales.

Additional KPI Metrics: Assess how other KPIs (Average Sales, Number of Items, Average Rating) vary with fat content.

2. Total Sales by Item Type:

Objective: Identify the performance of different item types in terms of total sales.

Additional KPI Metrics: Assess how other KPIs (Average Sales, Number of Items, Average Rating) vary with fat content.

3. Fat Content by Outlet for Total Sales:

Objective: Compare total sales across different outlets segmented by fat content.

Additional KPI Metrics: Assess how other KPIs (Average Sales, Number of Items, Average Rating) vary with fat content.

4. Total Sales by Outlet Establishment:

Objective: Evaluate how the age or type of outlet establishment influences total sales.



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BUSINESS REQUIREMENT

5. Percentage of Sales by Outlet Size:

Objective: Analyze the correlation between outlet size and total sales.

6. Sales by Outlet Location:

Objective: Assess the geographic distribution of sales across different locations.

7. All Metrics by Outlet Type:

Objective: Provide a comprehensive view of all key metrics (Total Sales, Average Sales, Number of Items, Average Rating) broken down by different outlet types.

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CREATE TABLE

```
DROP TABLE IF EXISTS blinkit_sales;  
  
CREATE TABLE blinkit_sales (  
    id SERIAL, -- auto-generated unique id  
    item_identifier VARCHAR,  
    item_fat_content VARCHAR,  
    item_type VARCHAR,  
    outlet_establishment_year INT,  
    outlet_identifier VARCHAR,  
    outlet_location_type VARCHAR,  
    outlet_size VARCHAR,  
    outlet_type VARCHAR,  
    item_visibility FLOAT,  
    item_weight FLOAT,  
    total_sales FLOAT,  
    rating FLOAT  
);
```

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TABLE

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Query Query History

```
41 );  
42  
43 select * from blinkit_sales;  
44  
45  
46
```

Data Output Messages Notifications



Showing rows: 1 to 1000

Page No:

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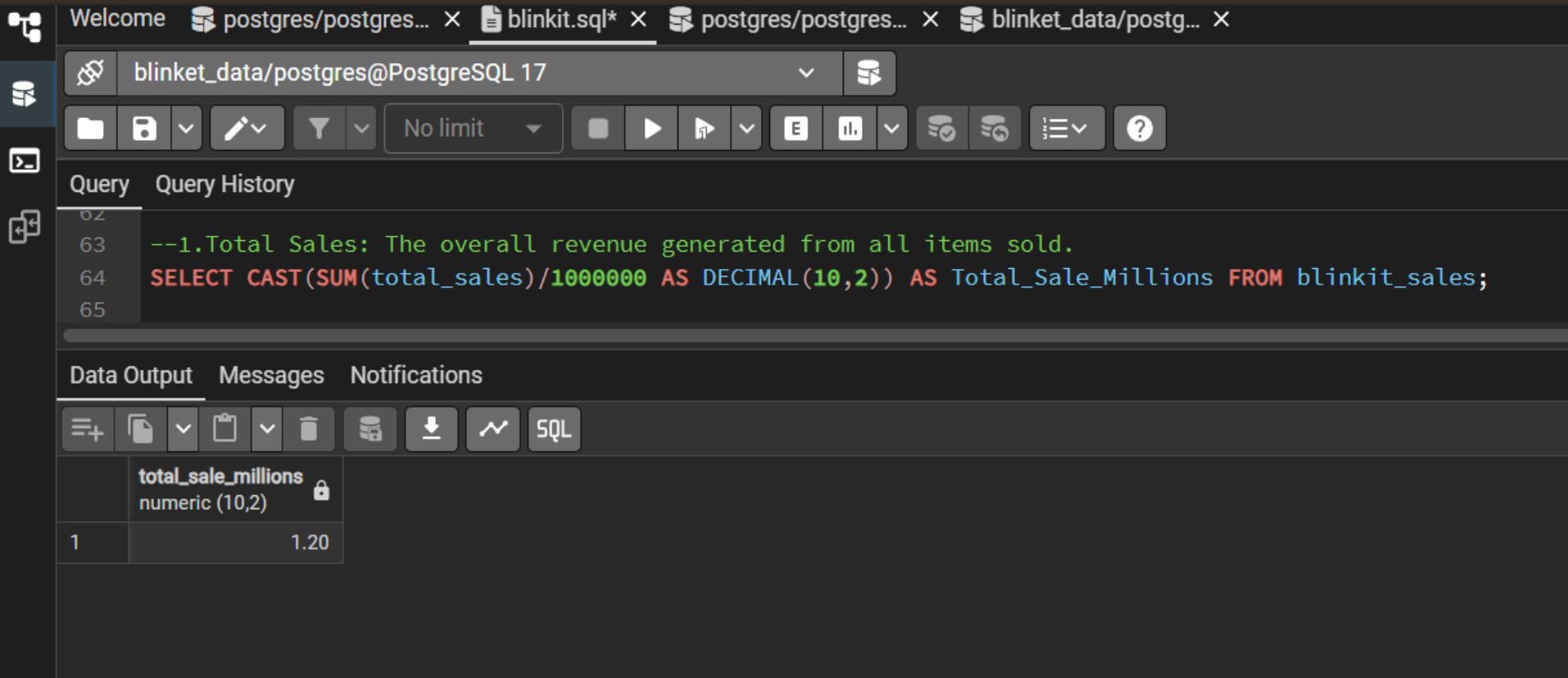


	id integer	item_identifier character varying	item_fat_content character varying	item_type character varying	outlet_establishment_year integer	outlet_identifier character varying	outlet_location_type character varying	outlet_size character varying	outlet_type character varying	item_visibility double precision	item_weight double precision	total_doub
1	1284	FDE51	Regular	Dairy	2011	OUT010	Tier 3	Small	Grocery Store	0.161466534	5.925	
2	18	NCB07	Low Fat	Household	2012	OUT049	Tier 1	Medium	Supermarket Type1	0.077628053	19.2	
3	78	FDU49	Regular	Canned	2012	OUT049	Tier 1	Medium	Supermarket Type1	0.030742083	19.5	
4	4437	FDK27	Low Fat	Meat	1998	OUT019	Tier 1	Small	Grocery Store	0.015664229	[null]	
5	4517	FDB28	Low Fat	Dairy	2011	OUT010	Tier 3	Medium	Grocery Store	0.156307983	6.615	
6	4627	FDO03	Regular	Meat	1998	OUT019	Tier 1	Small	Grocery Store	0.064577332	[null]	
7	79	FDA02	Regular	Dairy	2012	OUT049	Tier 1	Medium	Supermarket Type1	0.02976887	14	
8	80	FDV26	Regular	Dairy	2012	OUT049	Tier 1	Medium	Supermarket Type1	0	20.25	
9	140	FDO01	Regular	Breakfast	2010	OUT046	Tier 1	Small	Supermarket Type1	0.020718655	21.1	
10	1	FDX32	Regular	Fruits and Vegetables	2012	OUT049	Tier 1	Medium	Supermarket Type1	0.1000135	15.1	
11	2	NCB42	Low Fat	Health and Hygiene	2022	OUT018	Tier 3	Medium	Supermarket Type2	0.008596051	11.8	
12	3	FDR28	Regular	Frozen Foods	2010	OUT046	Tier 1	Small	Supermarket Type1	0.025896485	13.85	
13	4	FDL50	Regular	Canned	2000	OUT013	Tier 3	High	Supermarket Type1	0.042277867	12.15	
14	5	DRI25	Low Fat	Soft Drinks	2015	OUT045	Tier 2	Small	Supermarket Type1	0.033970195	19.6	

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Total Sales: The overall revenue generated from all items sold.



The screenshot shows a PostgreSQL client interface with the following components:

- Tab Bar:** Contains tabs for 'Welcome', 'postgres/postgres...', 'blinkit.sql*' (active), 'postgres/postgres...', and 'blinket_data/postg...'.
- Toolbar:** Includes icons for file operations, query execution, and settings. A dropdown menu is open showing 'No limit'.
- Query Editor:** Displays the following SQL query:

```
--1.Total Sales: The overall revenue generated from all items sold.  
SELECT CAST(SUM(total_sales)/1000000 AS DECIMAL(10,2)) AS Total_Sale_Millions FROM blinkit_sales;
```
- Data Output:** Shows the result of the query in a table with one row and one column.

	total_sale_millions numeric (10,2) 🔒
1	1.20

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Average Sales: The average revenue per sale.

Query Query History

```
65
66 --2.Average Sales: The average revenue per sale.
67 SELECT CAST(AVG(total_sales) AS DECIMAL(10,0)) AS Average_Sale FROM blinkit_sales;
68
69
```

Data Output Messages Notifications



	average_sale numeric (10) 
1	141

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Number of Items: The total count of different items sold.




Query Query History

```
68
69
70 --3.Number of Items: The total count of different items sold.
71 SELECT COUNT(*) AS No_Of_item FROM blinkit_sales;
72
```

Data Output Messages Notifications

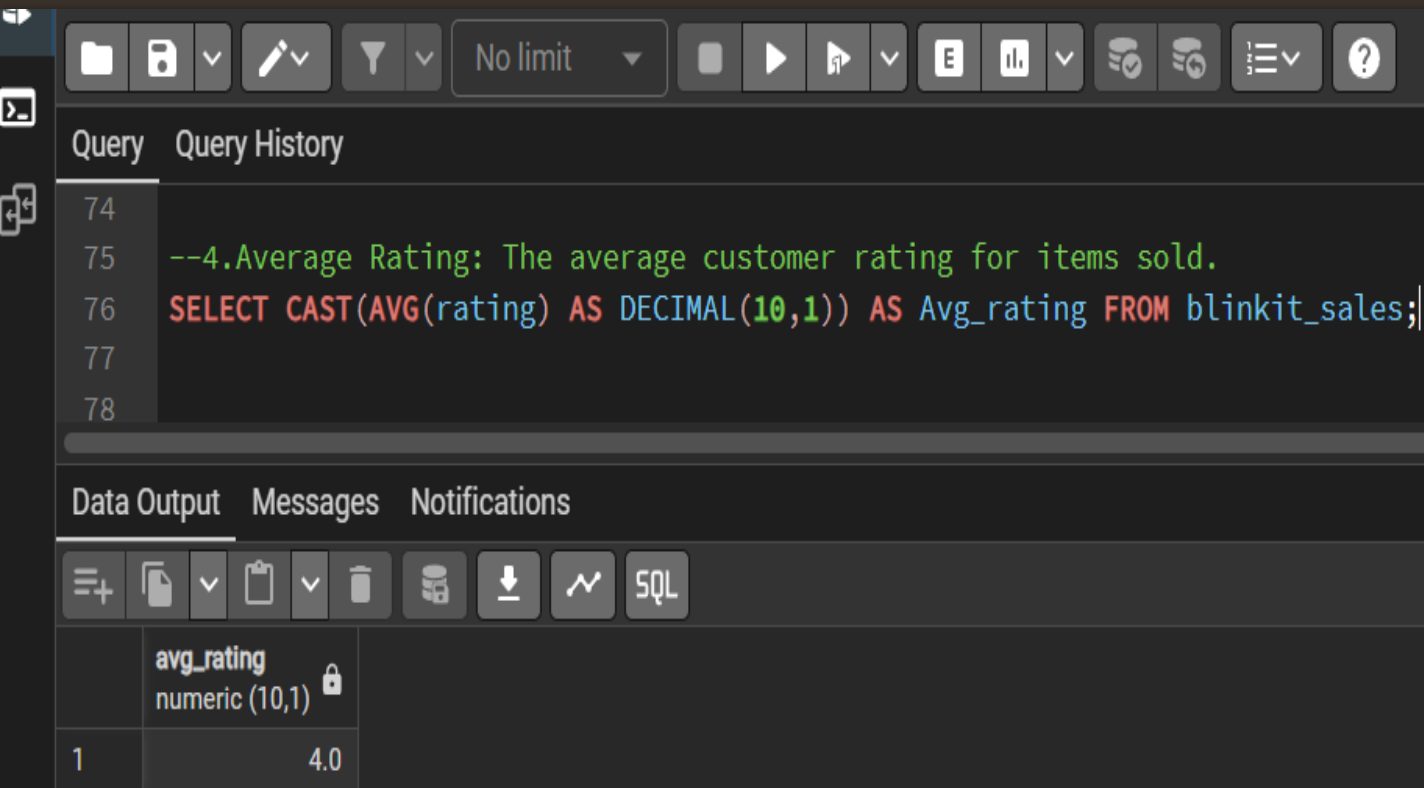


	no_of_item bigint 
1	8523

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Average Rating: The average customer rating for items sold.



The screenshot shows a SQL IDE interface. At the top, there is a toolbar with various icons for file operations, query execution, and formatting. Below the toolbar, there are tabs for "Query" and "Query History". The "Query" tab is active, displaying a SQL query. The query is as follows:

```
74  
75 --4.Average Rating: The average customer rating for items sold.  
76 SELECT CAST(AVG(rating) AS DECIMAL(10,1)) AS Avg_rating FROM blinkit_sales;  
77  
78
```

Below the query editor, there are tabs for "Data Output", "Messages", and "Notifications". The "Data Output" tab is active, showing the result of the query. The result is a single row with the column name "avg_rating" and the value "4.0".

	avg_rating numeric (10,1) 
1	4.0



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Total Sales by Fat Content:

Objective: Analyze the impact of fat content on total sales.

Additional KPI Metrics: Assess how other KPIs (Average Sales, Number of Items, Average Rating) vary with fat content.



Query Query History

```
84 SELECT item_fat_content,  
85         CAST(SUM(total_sales) AS DECIMAL(10,2)) AS total_sales,  
86         CAST(AVG(total_sales) AS DECIMAL(10,0)) AS Average_Sale,  
87         CAST(AVG(rating) AS DECIMAL(10,1)) AS Avg_rating,  
88         COUNT(*) AS No_Of_item  
89 FROM blinkit_sales  
90 GROUP BY item_fat_content  
91 ORDER BY total_sales DESC;  
92  
93  
94
```

Data Output Messages Notifications



	item_fat_content	total_sales	average_sale	avg_rating	no_of_item
	character varying	numeric (10,2)	numeric (10)	numeric (10,1)	bigint
1	Low Fat	776319.68	141	4.0	5517
2	Regular	425361.80	142	4.0	3006

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Total Sales by Item Type:

Objective: Identify the performance of different item types in terms of total sales.

Additional KPI Metrics: Assess how other KPIs (Average Sales, Number of Items, Average Rating) vary with fat content.

Query Query History

```
98
99 SELECT item_type ,
100        CAST(SUM(total_sales) AS DECIMAL(10,2)) AS Total_Sales_By_Item ,
101        CAST(AVG(total_sales) AS DECIMAL(10,0)) AS Average_Sale,
102        CAST(AVG(rating) AS DECIMAL(10,1)) AS Avg_rating,
103        COUNT(*) AS No_Of_item
104 FROM blinkit_Sales
105 GROUP BY item_type
106 ORDER BY Total_Sales_By_Item DESC
107 LIMIT 5;
108
```

Data Output Messages Notifications

	item_type character varying	total_sales_by_item numeric (10,2)	average_sale numeric (10)	avg_rating numeric (10,1)	no_of_item bigint
1	Fruits and Vegetables	178124.08	145	4.0	1232
2	Snack Foods	175433.92	146	3.9	1200
3	Household	135976.53	149	4.0	910
4	Frozen Foods	118558.88	139	4.0	856
5	Dairy	101276.46	148	4.0	682

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Fat Content by Outlet for Total Sales:

Objective: Compare total sales across different outlets segmented by fat content.

Additional KPI Metrics: Assess how other KPIs (Average Sales, Number of Items, Average Rating) vary with fat content.

Query Query History

```
113
114 SELECT outlet_location_type, item_fat_content,
115         CAST(SUM(total_sales) AS DECIMAL(10,2)) AS Total_Sales_By_Item ,
116         CAST(AVG(total_sales) AS DECIMAL(10,0)) AS Average_Sale,
117         CAST(AVG(rating) AS DECIMAL(10,1)) AS Avg_rating,
118         COUNT(*) AS No_Of_item
119 FROM blinkit_Sales
120 GROUP BY outlet_location_type,item_fat_content
121 ORDER BY Total_Sales_By_Item DESC
122 LIMIT 5;
123
```

Data Output Messages Notifications

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	outlet_location_type character varying	item_fat_content character varying	total_sales_by_item numeric (10,2)	average_sale numeric (10)	avg_rating numeric (10,1)	no_of_item bigint
1	Tier 3	Low Fat	306806.99	142	4.0	2168
2	Tier 2	Low Fat	254464.77	141	4.0	1809
3	Tier 1	Low Fat	215047.91	140	4.0	1540
4	Tier 3	Regular	165326.03	140	4.0	1182
5	Tier 2	Regular	138685.87	142	4.0	976

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Total Sales by Outlet Establishment:

Objective: Evaluate how the age or type of outlet establishment influences total sales

Query Query History

```
126 SELECT outlet_establishment_year,  
127         CAST(SUM(total_sales) AS DECIMAL(10,2)) AS total_sales_by_establishment,  
128         CAST(AVG(total_sales) AS DECIMAL(10,0)) AS Average_Sale,  
129         CAST(AVG(rating) AS DECIMAL(10,1)) AS Avg_rating,  
130         COUNT(*) AS No_Of_item  
131 FROM blinkit_sales  
132 GROUP BY outlet_establishment_year  
133 ORDER BY outlet_establishment_year;  
134  
135  
136
```

Data Output Messages Notifications

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	outlet_establishment_year integer	total_sales_by_establishment numeric (10,2)	average_sale numeric (10)	avg_rating numeric (10,1)	no_of_item bigint
1	1998	204522.26	140	4.0	1463
2	2000	131809.02	141	3.9	932
3	2010	132113.37	142	4.0	930
4	2011	78131.56	141	4.0	555
5	2012	130476.86	140	4.0	930
6	2015	130942.78	141	4.0	929
7	2017	133103.91	143	3.9	930
8	2020	129103.96	139	4.0	926
9	2022	131477.77	142	4.0	928

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Percentage of Sales by Outlet Size:

Objective: Analyze the correlation between outlet size and total sales.

```
142
143
144 SELECT outlet_size,
145         CAST(SUM(total_sales) AS DECIMAL(10,2)) AS total_sale,
146         CAST(SUM(total_sales)*100/SUM(SUM(total_sales)) OVER() AS DECIMAL(10,2)) AS Percentage_Of_Sales
147 FROM blinkit_sales
148 GROUP BY outlet_size
149 ORDER BY total_sale DESC;
150
151
152
```

Data Output Messages Notifications

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	outlet_size character varying	total_sale numeric (10,2)	percentage_of_sales numeric (10,2)
1	Medium	507895.73	42.27
2	Small	444794.17	37.01
3	High	248991.58	20.72

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Sales by Outlet Location:

Objective: Assess the geographic distribution of sales across different locations.

Query Query History

```
155
156 SELECT outlet_location_type,
157         CAST(SUM(total_sales) AS DECIMAL(10,2)) AS total_sales,
158         CAST(AVG(total_sales) AS DECIMAL(10,0)) AS Average_Sale,
159         CAST(AVG(rating) AS DECIMAL(10,1)) AS Avg_rating,
160         COUNT(*) AS No_Of_item
161 FROM blinkit_sales
162 GROUP BY outlet_location_type
163 ORDER BY outlet_location_type;
164
165
```

Data Output Messages Notifications

	outlet_location_type character varying	total_sales numeric (10,2)	average_sale numeric (10)	avg_rating numeric (10,1)	no_of_item bigint
1	Tier 1	336397.81	141	4.0	2388
2	Tier 2	393150.64	141	4.0	2785
3	Tier 3	472133.03	141	4.0	3350

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All Metrics by Outlet Type:

Objective: Provide a comprehensive view of all key metrics (Total Sales, Average Sales, Number of Items, Average Rating) broken down by different outlet types.



Query Query History

```
169
170 SELECT outlet_type,
171        CAST(SUM(total_sales) AS DECIMAL(10,2)) AS total_sales,
172        CAST(AVG(total_sales) AS DECIMAL(10,0)) AS Average_Sale,
173        CAST(AVG(rating) AS DECIMAL(10,1)) AS Avg_rating,
174        COUNT(*) AS No_Of_item
175 FROM blinkit_sales
176 GROUP BY outlet_type
177 ORDER BY total_sales DESC;
178
179
```

Data Output Messages Notifications



	outlet_type character varying	total_sales numeric (10,2)	average_sale numeric (10)	avg_rating numeric (10,1)	no_of_item bigint
1	Supermarket Type1	787549.89	141	4.0	5577
2	Grocery Store	151939.15	140	4.0	1083
3	Supermarket Type2	131477.77	142	4.0	928
4	Supermarket Type3	130714.67	140	4.0	935

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ADVANTAGES

- ★ Helps Blinkit identify **best-selling and low-selling items**.
- ★ Supports **inventory planning and supply chain optimization**.
- ★ Guides **business expansion** by highlighting profitable outlets and regions.
- ★ Improves **customer experience** by linking ratings with sales data.
- ★ Builds a **data-driven foundation** for dashboards and future analytics.



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THANK YOU