POSTGRE SQL QUERIES

**1. Total Sales:**

SELECT SUM(sales\_amount) AS Total\_Sales

FROM sales\_data;

**2. Average Sales:**

SELECT AVG(sales\_amount) AS Average\_Sales

FROM sales\_data;

**3. Total Number of Items Sold:**

SELECT COUNT(item\_id) AS Number\_of\_Items

FROM sales\_data;

**4. Average Rating**:

SELECT AVG(rating) AS Average\_Rating

FROM sales\_data;

**5. Sales by Outlet Size**:

SELECT outlet\_size, SUM(sales\_amount) AS Total\_Sales

FROM sales\_data

GROUP BY outlet\_size;

**6. Sales by Outlet Location (Tier):**

SELECT outlet\_location, SUM(sales\_amount) AS Total\_Sales

FROM sales\_data

GROUP BY outlet\_location

ORDER BY Total\_Sales DESC;

**7. Sales by Outlet Type:**

SELECT outlet\_type, SUM(sales\_amount) AS Total\_Sales

FROM sales\_data

GROUP BY outlet\_type

ORDER BY Total\_Sales DESC;

**8. Sales by Item Type:**

SELECT item\_type, SUM(sales\_amount) AS Total\_Sales

FROM sales\_data

GROUP BY item\_type

ORDER BY Total\_Sales DESC;

**9. Average Sales by Item Type:**

SELECT item\_type, AVG(sales\_amount) AS Avg\_Sales

FROM sales\_data

GROUP BY item\_type

ORDER BY Avg\_Sales DESC;

**10. Total Sales by Year**

SELECT YEAR(sale\_date) AS Year, SUM(sales\_amount) AS Total\_Sales

FROM sales\_data

GROUP BY YEAR(sale\_date)

ORDER BY Year;

**11. Average Rating by Outlet Type:**

SELECT outlet\_type, AVG(rating) AS Avg\_Rating

FROM sales\_data

GROUP BY outlet\_type;

**12. Sales by Fat Content Type:**

SELECT fat\_content, SUM(sales\_amount) AS Total\_Sales

FROM sales\_data

GROUP BY fat\_content;

**13. Number of Items Sold by Outlet Type:**

SELECT outlet\_type, COUNT(item\_id) AS Number\_of\_Items

FROM sales\_data

GROUP BY outlet\_type;

**14. Sales by Item Type and Outlet Size:**

SELECT item\_type, outlet\_size, SUM(sales\_amount) AS Total\_Sales

FROM sales\_data

GROUP BY item\_type, outlet\_size;

**15. Outlet Size Sales Distribution:**

SELECT outlet\_size, SUM(sales\_amount) AS Total\_Sales,

ROUND(SUM(sales\_amount) \* 100.0 / (SELECT SUM(sales\_amount) FROM sales\_data), 2) AS Sales\_Percentage

FROM sales\_data

GROUP BY outlet\_size;

**16. Yearly Growth in Sales:**

SELECT YEAR(sale\_date) AS Year,

SUM(sales\_amount) AS Total\_Sales,

LAG(SUM(sales\_amount)) OVER (ORDER BY YEAR(sale\_date)) AS Previous\_Year\_Sales,

(SUM(sales\_amount) - LAG(SUM(sales\_amount)) OVER (ORDER BY YEAR(sale\_date))) AS Sales\_Growth

FROM sales\_data

GROUP BY YEAR(sale\_date);

**17. Cumulative Sales by Year and Outlet Type:**

SELECT

outlet\_type,

YEAR(sale\_date) AS Year,

SUM(sales\_amount) AS Annual\_Sales,

SUM(SUM(sales\_amount)) OVER (PARTITION BY outlet\_type ORDER BY YEAR(sale\_date)) AS Cumulative\_Sales

FROM sales\_data

GROUP BY outlet\_type, YEAR(sale\_date)

ORDER BY outlet\_type, Year;

**18. Percentage Contribution of Each Item Type to Total Sales:**

SELECT

item\_type,

SUM(sales\_amount) AS Total\_Sales,

ROUND((SUM(sales\_amount) / (SELECT SUM(sales\_amount) FROM sales\_data)) \* 100, 2) AS Sales\_Percentage

FROM sales\_data

GROUP BY item\_type

ORDER BY Sales\_Percentage DESC;

**19. Most Popular Item Types by Sales for Each Outlet Size:**

SELECT

outlet\_size,

item\_type,

SUM(sales\_amount) AS Total\_Sales

FROM sales\_data

GROUP BY outlet\_size, item\_type

HAVING (outlet\_size, Total\_Sales) IN (

SELECT outlet\_size, MAX(SUM(sales\_amount))

FROM sales\_data

GROUP BY outlet\_size, item\_type

)

ORDER BY Total\_Sales DESC;

**20. Ranking of Outlets by Sales in Each Tier:**

SELECT

outlet\_location,

outlet\_name,

SUM(sales\_amount) AS Total\_Sales,

DENSE\_RANK() OVER (PARTITION BY outlet\_location ORDER BY SUM(sales\_amount) DESC) AS Sales\_Rank

FROM sales\_data

GROUP BY outlet\_location, outlet\_name

ORDER BY outlet\_location, Sales\_Rank;

**21. Average Sales by Outlet Size and Fat Content for Top 5 items Types:**

WITH Top\_Items AS (

SELECT item\_type

FROM sales\_data

GROUP BY item\_type

ORDER BY SUM(sales\_amount) DESC

LIMIT 5

)

SELECT

sd.outlet\_size,

sd.fat\_content,

sd.item\_type,

AVG(sd.sales\_amount) AS Avg\_Sales

FROM sales\_data AS sd

JOIN Top\_Items AS ti ON sd.item\_type = ti.item\_type

GROUP BY sd.outlet\_size, sd.fat\_content, sd.item\_type

ORDER BY sd.item\_type, sd.outlet\_size;