**1. Sales Overview Queries  
  
1️. Total Orders, Delivered Orders, Cancelled Orders**

SELECT

COUNT(order\_id) AS total\_orders,

SUM(CASE WHEN order\_status = 'delivered' THEN 1 ELSE 0 END) AS delivered\_orders,

SUM(CASE WHEN order\_status = 'canceled' THEN 1 ELSE 0 END) AS cancelled\_orders

FROM orders;

**2️. Total Sales & Total Revenue**

SELECT

SUM(price) AS total\_sales,

SUM(price + freight\_value) AS total\_revenue

FROM order\_items;

**3️. Orders by Customer State**

SELECT

c.customer\_state,

COUNT(o.order\_id) AS order\_count

FROM orders o

JOIN customers c ON o.customer\_id = c.customer\_id

GROUP BY c.customer\_state

ORDER BY order\_count DESC;

**4️. Average Freight by Category**

SELECT

p.category,

ROUND(AVG(oi.freight\_value), 2) AS avg\_freight

FROM order\_items oi

JOIN products p ON oi.product\_id = p.product\_id

GROUP BY p.category

ORDER BY avg\_freight DESC;

**5️. Total Revenue by Category**

SELECT

p.category,

ROUND(SUM(oi.price + oi.freight\_value), 2) AS total\_revenue

FROM order\_items oi

JOIN products p ON oi.product\_id = p.product\_id

GROUP BY p.category

ORDER BY total\_revenue DESC;

**6️. Total Revenue & Sales by Geolocation (Customer State)**

SELECT

c.customer\_state,

ROUND(SUM(oi.price), 2) AS total\_sales,

ROUND(SUM(oi.price + oi.freight\_value), 2) AS total\_revenue

FROM orders o

JOIN customers c ON o.customer\_id = c.customer\_id

JOIN order\_items oi ON o.order\_id = oi.order\_id

GROUP BY c.customer\_state

ORDER BY total\_revenue DESC;

**2. Customer Analysis**

**7️. Customers by State**

SELECT

customer\_state,

COUNT(DISTINCT customer\_id) AS customer\_count

FROM customers

GROUP BY customer\_state

ORDER BY customer\_count DESC;

**8️. Repeat vs One-Time Buyers**

SELECT

CASE

WHEN order\_count > 1 THEN 'Repeat Customer'

ELSE 'One-Time Buyer'

END AS customer\_type,

COUNT(\*) AS customer\_count

FROM (

SELECT customer\_id, COUNT(order\_id) AS order\_count

FROM orders

GROUP BY customer\_id

) sub

GROUP BY customer\_type;

**3. Review Analysis**

**9️. Review Score Distribution**

SELECT

review\_score,

COUNT(order\_id) AS review\_count

FROM reviews

GROUP BY review\_score

ORDER BY review\_score;

**10. Average Review Score by State**

SELECT

c.customer\_state,

ROUND(AVG(r.review\_score), 2) AS avg\_review\_score

FROM reviews r

JOIN orders o ON r.order\_id = o.order\_id

JOIN customers c ON o.customer\_id = c.customer\_id

GROUP BY c.customer\_state

ORDER BY avg\_review\_score DESC;

**4. Payment Analysis**

**11️. Count of Payment Type**

SELECT

payment\_type,

COUNT(\*) AS payment\_count,

ROUND(100.0 \* COUNT(\*) / SUM(COUNT(\*)) OVER (), 2) AS percentage

FROM payments

GROUP BY payment\_type

ORDER BY payment\_count DESC;

**12️. Total Payment Value by Type**

SELECT

payment\_type,

ROUND(SUM(payment\_value), 2) AS total\_payment\_value

FROM payments

GROUP BY payment\_type

ORDER BY total\_payment\_value DESC;

**13️. Average Installments by Payment Type**

SELECT

payment\_type,

ROUND(AVG(payment\_installments), 2) AS avg\_installment

FROM payments

GROUP BY payment\_type

ORDER BY avg\_installment DESC;

**5. Optional Deep-Dive Queries**

**14️. Top 10 Categories by Orders**

SELECT

p.category,

COUNT(oi.order\_id) AS total\_orders

FROM order\_items oi

JOIN products p ON oi.product\_id = p.product\_id

GROUP BY p.category

ORDER BY total\_orders DESC

LIMIT 10;

**15️. Monthly Sales Trend**

SELECT

DATE\_TRUNC('month', o.order\_purchase\_timestamp) AS month,

SUM(oi.price) AS total\_sales

FROM orders o

JOIN order\_items oi ON o.order\_id = oi.order\_id

GROUP BY month

ORDER BY month;