
🔟 Power BI-Ready Business Questions (SQL Challenges)

◆ 1. Which products generated the most revenue this year?

Show the top-selling products based on total revenue, using the current year only.

Focus: Join, aggregation, filtering by year, sorting
Use for: Bar chart in Power BI

◆ 2. Who are our most valuable customers?

Find customers with the highest total purchase value.

Focus: Joins across orders, order_items, customers; aggregation
Use for: Table, KPI card, or customer leaderboard

◆ 3. What is the monthly trend in total sales?

Show total revenue for each month to analyze seasonality.

Focus: Date functions (`strftime`), aggregation, ordering
Use for: Line chart in Power BI

◆ 4. Which staff members are closing the most sales?

Find which staff handled the most orders or generated the most revenue.

Focus: Joins between orders and staff, grouping
Use for: Leaderboard visual, performance tracking

◆ 5. Which stores have the highest and lowest performance?

Compare stores based on total orders and revenue.

Focus: Store-level grouping, joins
Use for: Map or bar chart by store

◆ 6. What are the most and least popular product categories?

Rank categories by total number of units sold.

Focus: Joins, `GROUP BY`, category understanding
Use for: Category distribution chart or pie chart

◆ 7. What's the average discount rate by product?

Show which products are most frequently discounted and by how much.

Focus: `AVG`, filtering, grouping
Use for: Scatterplot or product margin analysis

◆ 8. Which orders had the highest value?

List the top 10 most valuable orders based on quantity × price × (1 - discount).

Focus: Subquery or aggregation, `ORDER BY`, `LIMIT`
Use for: High-value transaction table

◆ 9. What is the return rate or missing shipment rate?

How many orders are pending, canceled, or not shipped on time?

Focus: `CASE`, `WHERE`, status tracking
Use for: Status cards or trend lines

◆ 10. How does customer purchase behavior vary by region?

Compare average order size, number of orders, and total revenue by city or ZIP code.

Focus: Aggregation + joins with customer address
Use for: Regional maps or city-wise comparison

□ Notes:

- Each of these can be turned into a **Power BI table, chart, or KPI card**
- They help simulate **real business reporting scenarios**
- The SQL can be done inside DB Browser or later inside Power BI using a query connector