

## Problem Statement: Customer Sales & Regional Performance Optimization

To analyze multi-dimensional sales data (customer behavior, product performance, regional revenue, and sales channels) and provide actionable business insights that can enhance strategic decisions in marketing, operations, and product planning.

A mid-size retail company operates across several regions, offering various products through both online and offline channels. The business is collecting data from its customer base, regional operations, product catalog, and transactional sales.

However, the company lacks a unified view of its performance, making it difficult to:

- Identify underperforming regions
- Recognize top-performing products
- Understand customer behavior and value
- Optimize the sales channel strategy
- Monitor seasonality and monthly sales trends

**Goal:** To build a robust SQL-powered data analysis solution that answers the following key business questions:

1. Which cities and countries generate the highest and lowest sales revenue?
2. Which products are contributing the most to the company's total revenue?
3. How does customer value vary, and who are the high-value customers worth targeting for loyalty programs?
4. How do different sales channels (online vs offline) perform in terms of revenue, order count, and average value?
5. What does the monthly revenue trend look like, and are there seasonal spikes in performance?
6. Can we create reusable views for easy integration with dashboards like Power BI?

**Deliverables:**

- A MySQL database with structured, indexed tables
- A collection of performance-tuned SQL queries solving each business problem
- A Power BI (or Excel) dashboard powered by SQL views
- A data-driven report to support business decisions

**Impact:** This analysis will empower the business to:

- Make region-specific marketing investments
- Focus on profitable product lines
- Launch customer loyalty campaigns
- Reallocate resources toward more effective sales channels
- Plan better for seasonal inventory and staffing needs