

## Company Scenario

You have real customer, seller, and order data. Your manager has given you two tasks:

### Problem Statements

#### 1. Basic Delivery Performance Report

Problem: Find the percentage of orders delivered late vs. on time.

Goal: Help logistics team fix delivery issues.

#### 2. Customer Review Analysis

Problem: Find the average customer rating for each product category.

Goal: Identify which categories customers love or hate.

#### 3. Top Selling Products and Categories

Problem: Find the top 10 best-selling product categories.

Goal: Help the marketing team promote the best products.

#### 4. Payment Types and Trends

Problem: Find out which payment method customers use the most (credit card, boleto, etc.).

Goal: Plan for payment system improvements datasets.

### Data Preparation Steps

Handle missing dates or wrong data types (convert to datetime).

Merge datasets based on order\_id or customer\_id.

Group by and aggregate data (e.g., count orders, calculate averages).

Write SQL queries for some questions

### Visualizations to Show

Late deliveries vs on-time deliveries

Average review score per product category

Top-selling categories

Most used payment methods

### Problem Statements

#### 1. Delivery Performance

Find % of late deliveries vs on-time deliveries.

Identify regions with most late deliveries.

#### 2. Customer Review Analysis

Find average review score by product category.

Identify categories with most 5-star and 1-star reviews.

#### 3. Top-Selling Products and Categories

Find the top 10 selling product categories.

Find top 10 products by quantity sold.

#### 4. Payment Behavior

Find the most popular payment methods (credit card, boleto, etc.).

Analyze the average payment value per order.

#### Additional Questions

How many orders does an average customer place?

Which cities have the most active customers?

#### Understand Reviews

Distribution of review scores.

Relation between delivery time and review score.

#### Understand Delays

Average delay days (delivered date vs estimated date).

#### Understand Product Categories

Categories with most orders.

#### Basic Final Report — Answer These:

What % of deliveries were late?

Which 3 product categories have the best customer ratings?

Which payment method is most popular?

Name 3 cities where most deliveries happen.

Calculate the average delivery delay (in days) for each state.

Find the top 5 product categories with the highest number of late deliveries.

List the top 10 cities with the highest number of unique customers.

Find the most common review score for each product category.

Identify the top 5 products that received the most 1-star reviews.

Calculate the total revenue generated by each payment type.

For each product category, calculate the average review score and total number of orders.

Find the top 5 customers who placed the most orders and their total spending.

Determine the number of orders per month and the average delivery time (in days) for each month.

Identify categories where the majority of reviews are 5-star.