**Walmart Business Problems**

# Analyze Payment Methods and Sales

* **Question:** What are the different payment methods, and how many transactions and items were sold with each method?
* **Purpose:** This helps understand customer preferences for payment methods, aiding in payment optimization strategies.

# Identify the Highest-Rated Category in Each Branch

* **Question:** Which category received the highest average rating in each branch?
* **Purpose:** This allows Walmart to recognize and promote popular categories in specific branches, enhancing customer satisfaction and branch-specific marketing.

# Determine the Busiest Day for Each Branch

* **Question:** What is the busiest day of the week for each branch based on transaction volume?
* **Purpose:** This insight helps in optimizing staffing and inventory management to accommodate peak days.

# Calculate Total Quantity Sold by Payment Method

* **Question:** How many items were sold through each payment method?
* **Purpose:** This helps Walmart track sales volume by payment type, providing insights into customer purchasing habits.

# Analyze Category Ratings by City

* **Question:** What are the average, minimum, and maximum ratings for each category in each city?
* **Purpose:** This data can guide city-level promotions, allowing Walmart to address regional preferences and improve customer experiences.

# Calculate Total Profit by Category

* **Question:** What is the total profit for each category, ranked from highest to lowest?
* **Purpose:** Identifying high-profit categories helps focus efforts on expanding these products or managing pricing strategies effectively.

# Determine the Most Common Payment Method per Branch

* **Question:** What is the most frequently used payment method in each branch?
* **Purpose:** This information aids in understanding branch-specific payment preferences, potentially allowing branches to streamline their payment processing systems.

# Analyze Sales Shifts Throughout the Day

* **Question:** How many transactions occur in each shift (Morning, Afternoon, Evening) across branches?
* **Purpose:** This insight helps in managing staff shifts and stock replenishment schedules, especially during high-sales periods.

# Identify Branches with Highest Revenue Decline Year-Over-Year

* **Question:** Which branches experienced the largest decrease in revenue compared to the previous year?
* **Purpose:** Detecting branches with declining revenue is crucial for understanding possible local issues and creating strategies to boost sales or mitigate losses.

# 10: Find Categories Where Profit Margin is Low Despite High Unit Price

* **Question:** Which categories have low profit margins despite high unit prices?
* **Purpose:** Identify overpriced or inefficiently priced categories that may not be delivering expected profits. Helps optimize pricing or cost structure.

**11: Which Day of the Week Gets the Highest Average Profit Margin?**

* **Question**: Which day of the week shows the highest average profit margin?
* **Purpose**: Used for planning high-margin promotions, staff deployment, or pushing high-value items on those days

# 12: Compare Weekend vs Weekday Sales Pattern

# Question: How do sales differ between weekdays and weekends?

# Purpose: Helps in planning targeted weekday vs weekend promotions and resource allocation based on footfall and spending behavior.

# 13: Determine Top 3 Revenue Hours for Each Branch

# Question: What are the top 3 hours with the highest revenue for each branch?

# Purpose: Used for fine-tuning staffing during peak time slots, branch-wise.

# Q14: Monthly Sales Trend per City

# Question: What are the monthly sales trends across each city?

# Purpose: Understand seasonality, performance drops, or growth across months and cities.

# Q15: Identify Peak Purchase Hour by Payment Method

# Question: Which hour has the most transactions for each payment method?

# Purpose: Enables better alignment of systems/cash counters with popular payment methods during specific time blocks.

# Q16: Which Branch Has the Highest Average Rating by City?

# Question: Which branch has the highest average customer rating in each city?

# Purpose: Recognize high-performing branches to replicate successful practices across other locations.