

Business Problems:

1. 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.

2. 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.

3. 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.

4. 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.

5. 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.

6. 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.

7. 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.

8. 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.

9. 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.