PROBLEM STATEMENTS ON SALES DATA

1. What is the total revenue and no. of sales in each store on monthly basis?
2. Identify and analyse the months with the highest sales spikes?
3. Are there any noticeable seasonal patterns (summer, autumn, winter, spring) in the sales data?
4. Which month shows the highest and lowest sales?
5. What are the total sales for each cluster of the stores? Do different store clusters exhibit different seasonal sales patterns?
6. How does sales performance vary by demographic segment?
7. What are the characteristics of repeat customers versus one-time buyers?
8. How is the sales distribution across different payment methods?
9. Which store has highest no. orders?
10. What is the no. of customers in a particular zip code?
11. what are the descriptive statistics of invoice values and payment channels?
12. What is the monthly sales trend for each year?
13. What is the year over year sales growth rate for each month?
14. What are the top 5 stores?
15. What are the top5 customers?
16. What is the average order value for each customer?
17. Evaluate the performance of store managers based on sales metrics, customers satisfaction and store operation?
18. Is there a correlation between the location and total sales?
19. What is the contribution of sales by the year customer became members?
20. How do the sales differ between weekdays and weekends?
21. Identify different customers segments based on their purchasing power (highest, moderate lowest)? Kmeans clustering
22. Assess the impact of membership program on customers loyalty and sales?
23. Which year/month records the highest store openings?

 Customer Segmentation:

* Problem: Identify different customer segments based on their purchasing behavior and membership details.
* Goal: Classify customers into segments to better tailor marketing strategies and improve customer retention.

 Sales Performance Analysis:

* Problem: Analyze the sales performance of different stores based on various metrics such as total sales, average order value, and sales trends over time.
* Goal: Identify top-performing stores and areas for improvement to boost overall sales performance.

 Customer Lifetime Value (CLV):

* Problem: Calculate the customer lifetime value for each customer based on their purchase history.
* Goal: Understand the long-term value of customers and identify high-value customers for targeted retention strategies.

 Impact of Payment Methods on Sales:

* Problem: Analyze how different payment methods (Credit Card, COD, Wallets, UPI, BNPL) affect sales and customer behavior.
* Goal: Optimize payment options to enhance customer satisfaction and increase sales.

 Store Cluster Analysis:

* Problem: Assess the performance and characteristics of stores within different clusters (Cluster 1, Cluster 2, Cluster 3).
* Goal: Develop tailored strategies for each cluster to maximize efficiency and profitability.

 Customer Demographics Analysis:

* Problem: Study the demographics of customers based on their ZIP codes and membership dates.
* Goal: Identify key customer demographics and tailor marketing campaigns to specific geographic areas.

 Order Trend Analysis:

* Problem: Examine the trends in order values, frequencies, and methods over time.
* Goal: Identify seasonal trends, peak periods, and potential factors influencing order patterns to optimize inventory and marketing strategies.

 Store Manager Performance Evaluation:

* Problem: Evaluate the performance of store managers based on sales metrics, customer satisfaction, and store operations.
* Goal: Recognize top-performing managers and identify areas for managerial training and development.

 Effectiveness of Membership Programs:

* Problem: Assess the impact of membership programs on customer loyalty and sales.
* Goal: Improve membership benefits and strategies to increase customer retention and engagement.

 Geospatial Sales Analysis:

* Problem: Analyze sales data in relation to store and customer locations to identify geographic trends and opportunities.
* Goal: Optimize store locations and regional marketing efforts based on geographic sales patterns.