

## **Specific Works and Edits on the Dataset**

### **Transactions Dataset**

- Created the 'Profit' column using the formula: Profit = List Price – Standard Cost.
- Customer Demographics Dataset
- Created the 'Age' column from the given 'DOB' (Date of Birth) column.

### **Merging Datasets**

- Merged the three datasets: Transactions, Customer Demographics, and Customer Address.
- Used 'Customer ID' as the primary key for merging the datasets.
- Took the Transactions dataset as the base and used the LOOKUP function to integrate data from the other two datasets into the Transactions dataset.
- Named the new merged dataset as "Transactions Merged".

### **Knowledge Discovery in Databases (KDD)**

- Applied KDD, which involves extracting useful, previously unknown, and potentially valuable information from large datasets.

### **RFM Analysis**

- Conducted RFM (Recency, Frequency, and Monetary Value) analysis:
- Recency: How recently a customer made a purchase.
- Frequency: How often a customer shops during a specific period.
- Monetary Value: How much a customer spends.

### **Analysis Steps**

1. Determined the recency dates.
2. Created a Pivot Table to find the RFM Scores.
3. Calculated the mean, median, and maximum values of the RFM Scores.
4. Created a pivot table to analyze the RFM scores and categorized customers into Bronze, Silver, Gold, and Platinum based on their scores.
5. Created another pivot table to analyze customer data by age, net worth, and customer value.
6. Generated a chart based on the pivot table to identify the age group to target based on their net worth.
7. Created another chart and pivot table to determine the number of car owners by state.