Exploratory Data Analysis Report

# 1. Data Cleaning

- Missing values were handled appropriately.  
- Data types, particularly date columns, were corrected.  
- Duplicate entries were identified and removed.

# 2. Exploratory Data Analysis (EDA)

- The distribution of transaction amounts was right-skewed, with most values on the lower end.  
- 'Sales' and 'Purchases' were the most frequent transaction categories.  
- Credit transactions outnumbered Debit transactions.

# 3. Time Series Analysis

- Monthly transaction data revealed seasonal patterns with peak activity in specific months.  
- Daily trends showed fluctuations in transaction volume and amount.

# 4. Correlation Analysis

- Strong correlations observed between specific transaction categories.  
- Insights suggest relationships in financial behavior or operational activity.

# 5. Visualizations Used

- Histogram of transaction amounts (right-skewed distribution).  
- Bar plots of transaction counts by category and type.  
- Line charts for monthly and daily trends.  
- Correlation heatmap showing inter-category relationships.

# 6. Summary & Key Insights

- Majority of transactions are of low monetary value.  
- 'Sales' and 'Purchases' dominate transaction activity.  
- Credit transactions are more prevalent than Debits.  
- Seasonal peaks were noted in monthly transaction volumes.  
- Correlation patterns can support strategic financial decisions.