Comprehensive Analysis of Fintech Cleaned Data

# 2. Data Preparation

## Clean the fintech dataset

1. Handle Missing Values: Identify and fill missing values in the dataset.

2. Remove Duplicates: Check for and remove duplicate records.

3. Standardize Data: Ensure consistency in text data, such as customer names.

4. Handle Outliers: Identify and handle outliers in the TransactionAmount column.

5. Validate Data: Ensure all transaction amounts are positive and valid.

6. Feature Engineering: Extract date components and categorize transaction amounts.

7. Create Summary Statistics: Generate summary statistics (mean, median, standard deviation) for key numeric columns to get an overview of the data.

# 3. Lookup Functions

## Find the department of each customer based on their Customer ID using VLOOKUP.

## Retrieve the commission percentage for each transaction from a table where records are stored horizontally using HLOOKUP.

## Find the transaction amount for a specific transaction ID using INDEX-MATCH.

## Compare VLOOKUP and INDEX-MATCH for looking up the customer name based on Customer ID.

## Use both VLOOKUP and INDEX-MATCH to find the product name for a given product code and compare their performance.

# 4. Text Functions

## Standardize customer names to proper case using PROPER function.

## Extract the first three characters of the transaction code using LEFT function.

## Find the length of each transaction ID using LEN function.

## Combine First and Last Names--Use the CONCATENATE or & operator to combine first and last name columns into a full name column.

## Extract Domain from Email Address-- Use the FIND and MID functions to extract the domain part from email addresses.

# 5. Date Functions

## Display the current date using TODAY function.

## Display the current date and time using NOW function.

## Convert a text date to a serial number using DATEVALUE function.

## Calculate the number of working days between two dates, excluding weekends, using NETWORKDAYS function.

## Calculate the Age of Transactions-- Use the DATEDIF function to calculate the age of transactions from the TransactionDate to the current date.

# 6. Advanced Sort and Filter

## Sort transactions based on a custom order of transaction types.

## Filter transactions to show only those with amounts greater than $5000.

## Apply Multiple Criteria Filter-- Use advanced filter to display transactions that meet multiple criteria (e.g., transactions above $5000 and from a specific department).

## Sort Data by Multiple Columns-- Sort the dataset by multiple columns (e.g., first by department, then by transaction amount).

# 7. Pivot Tables

## Summarize total transaction amounts by customer using a Pivot Table.

## Group transaction dates by month in a Pivot Table.

## Calculate Average Transaction Amount by Department-- Use a Pivot Table to calculate the average transaction amount for each department.

## Display Percentage of Total Transactions by Product-- Create a Pivot Table to show the percentage of total transactions for each product category.

# 8. Slicers

## Add a slicer to filter transactions by Customer.

## Add Slicers for Multiple Fields-- Create slicers for multiple fields (e.g., Customer, Department) to allow multi-dimensional filtering.