## Data Cleaning and Processing:

To ensure the accuracy and consistency of the dataset for meaningful analysis, several data cleaning and processing steps were undertaken:

### Data Cleaning:

* **Null and Duplicate Removal:** Checked for and eliminated any null values and duplicates across all columns to ensure data integrity.
* **Gender Standardization:** Standardized the 'Gender' column by replacing shorthand values ('M' and 'W') with full terms ('Men' and 'Women') for clarity and consistency.
* **Quantity Field Correction:** Corrected discrepancies in the 'Quantity' field by converting textual representations ('One' and 'Two') to numerical values (1 and 2).
* **Redundant Column Removal:** Removed the 'Currency' column, as it only contained the constant value 'INR,' which was unnecessary for the analysis.

### Data Processing:

* **Age Bracket Creation:** Introduced a new column for Age Brackets, categorizing customers into three generational groups (Boomers, Millennials, and Gen Z) using the formula:  
   =IF(E2>50,"Boomers",IF(E2>=30,"Millennials","Gen Z"))
* **Month Extraction**: Added a column for Month Names by extracting the month name from the 'Date' field using the formula:  
   =TEXT(G2,"mmm")