**Task 1: Customer Personality Analysis**

**📊 Summary of Changes – Data Cleaning**

1. **Missing Values**
   * Filled 24 missing values in Income column using **median**.
2. **Duplicates**
   * Removed duplicate rows to ensure unique records.
3. **Standardization of Categorical Data**
   * Unified text cases and fixed inconsistencies in:
     + Education (e.g., “Phd” → “PhD”, “2n Cycle” → “Master”).
     + Marital\_Status (e.g., “Together”, “Single”, “Married”).
4. **Date Formatting**
   * Converted Dt\_Customer from text (dd-mm-yyyy) to proper **datetime format**.
5. **Column Renaming**
   * Renamed all columns to **snake\_case** for consistency.
   * Example: Year\_Birth → year\_birth, NumWebPurchases → num\_web\_purchases.
6. **Data Types Correction**
   * Ensured year\_birth, recency, and purchase columns are integers.
   * Set income as float.
   * Converted dt\_customer to datetime.
7. **Outlier Treatment**
   * Removed unrealistic birth years (<1900, >2025).
   * Removed extreme incomes (>200,000).