E- COMMERCE RETURNS

1. Downloading data set from kaggle –
   https://www.kaggle.com/datasets/sayalikhot21/synthetic-dataset-for-e-commerce-return-analysis

2. Cleaning the given data set in VSCODE with python and check the dataset. The columns in dataset are :
   ```
   ['Order_ID','Product_ID', 'User_ID', 'Order_Date', 'Return_Date',
   'Product_Category', 'Product_Price', 'Order_Quantity',
   'Return_Reason','Return_Status', 'Days_to_Return', 'User_Age',
   'User_Gender', 'User_Location', 'Payment_Method',
      'Shipping_Method','Discount_Applied']
   ```

3. Given DATASET is cleaning and you can check code in cleaning_dataset.
4. Now let's run SQL queries for analysis and some graphs for easy understanding in python.
   ANALYSIS SUMMARY:
   - We have 2539 rows in total that have returned items details correctly.
   - 611 people returned items because they "changed their mind". But most of the people have returned because the piece they received is defective
   - City62 returns most number of items are returned.(city41 is least)
   - People who choose credit card as payment method return products more
   - Total returned value - 1970060.26
   - RETURNED VALUES BY AGE GROUP-BY PEOPLE UNDER 20 MOSTLY RETURNS

	Age_Group	Total_Returned_Value
0	20-29	354665.15
1	30-39	379404.05
2	40-49	361756.58
3	50-59	396797.13
4	60 and above	417538.87
5	Under 20	59898.48

   - MEN RETURN MORE THAN FEMALE IN VALUE BUT FEMALE REMOVE MORE NUMBER OF ITEMS
   - Most expensive item returned are electronic items
   - Books are returned the most in all the products.
   - Returns increased while compared to last year.

Year	Return_Count
2023	645
2024	1894

SUGGESTIONS :

- TRY TO REDUCE THE RETURNS IN 2025.
- REMOVE RETURNS FOR BOOKS BECAUSE THEY ARE PROBABLY READ AND RETURNING IT OR REDUCE THE RETURN TIMING TO 1DAY.
- DOUBLE VERIFY FOR AGE GROUP OF LESS THAN 20 TO CONFIRM THEIR ORDERS.
- AWAIL REGION WISE ALLOWANCE TO REDUCE LOSS OF RETURN MONEY.
- IMPROVE QUALITY OF PRODUCTS AND CHECK BEFORE DISPATCH TO REDUCE THE RETURNS DUE TO DAMAGE.