Final Project

BestDeal Retailer

Deliverable:

- Post your Final Project as an IPYNB script with the output presented below every deliverable listed in the ipynb script

Specifications and Requirements:

1. **Business Understanding**: As a data scientist for BestDeal retailer, you have been tasked with improving their revenue and the effectiveness of the marketing campaign of their electronic products. The given dataset has 10,000 records for the purchases of their customers and is used to predict customers shopping patterns and to provide answers for ad-hoc queries. The dataset ***DirtyData4BestDeal10000.csv*** is drawn from its database of customers.

2. **Data Understanding**: The dataset ***DirtyData4BestDeal10000.csv*** has 10,000 records/instances in CSV format

3. **Data Preparation**: Use the Python **BestDealPythonScrip.ipynb** to clean the messy/dirty data and then save the cleaned data in a database

   Remember you need to clean the messy/dirty data only once using Python, then you save the cleaned data in a database. Such that the next time you need to use the data for another analytics tasks, you do NOT need to perform the heavy-computations of cleaning the data again.

   We clean the messy/dirty data only ONCE and then we save it in a Database for future use

4. **Database processing and Python programming**: Use SQLite along with the provided IPYNB script, **BestDealPythonScrip.ipynb**, to provide answers for the following deliverables:
   a. **Deliverable #1 (Use SQL/SQlite)**: get the number of customers who bought DellLaptop and HPPrinter for every Age group sorted by CustomerAge

   b. **Deliverable #2 (Use SQL/SQlite** : get the list of ZipCodes where no customer bought XBOX360 (this query means NOT even a single customer in that zip code bought XBOX360)

   c. **Deliverable #3 (Use SQL/SQlite/Matplotlib)** : Plot in a stacked-bar figure the number of customers who bought HPLaptop and/or HPPrinter but did NOT buy WDexternalHD for every CustomerAge group that has more than 100 customers who bought these two products(either bought one of these products or the two products but didn't buy WDexternalHD)