Questions ——> DATA MANIPULATION

Question-1, we were asked to Classify the customers into their discount bracket and find the counts of distinct customers falling in each discount category:

```
aryansharma@Aryans-MacBook-Air G-7(ProcDNA) % python3 data_mani.py
Discount Category Counts:
Discount Category
30% discount    3432
Name: count, dtype: int64
```

Explanation: The code classifies customers into three discount categories based on their number of transactions and total dollar purchases. The output shows that there are 3432 distinct customers falling into the '30% discount' category.

Question-2, we were asked to Create a table containing Customer ID, number of transactions made, category of discount coupon, and their total dollar purchase in last 2 years:

```
aryansharma@Aryans-MacBook-Air G-7(ProcDNA) % python3 data_mani.py
Discount Category Counts:
Discount Category
30% discount    3432
Name: count, dtype: int64

Discount Table:
    Customer ID  Number of transactions Discount Category  Total Dollar Purchase
669    SV-20365                      20      30% discount                   3172
363    JM-15250                      11      30% discount                   3127
257    EP-13915                      16      30% discount                   3081
135    CJ-12010                      13      30% discount                   3058
422    LC-16885                       9      30% discount                   2915
..          ...                     ...               ...                    ...
471    MG-17875                       1      30% discount                     25
671    SV-20815                       1      30% discount                     25
119    CC-12100                       1      30% discount                     23
577    RB-19330                       1      30% discount                     18
414    KS-16300                       1      30% discount                     15

[739 rows x 4 columns]
```

Explanation: The code creates a table with Customer ID, the number of transactions made, the category of the discount coupon, and the total dollar purchase for each customer in the last 2 years. The table is sorted based on the 'Total Dollar Purchase' column in descending order.

Question-3, we were asked to Find the top 10 customers based on their purchase amounts in the last 6 months:

```
Top 10 Customers based on Purchase Amount in the Last 6 Months:
Series([], Name: Dollar Sales, dtype: int64)
```

Explanation: The code tries to find the top 10 customers based on their purchase amounts in the last 6 months. However, the output shows an empty Series, indicating that there are no customers with purchases in the last 6 months in the given dataset.

Question-4, we were asked to Find the top 2 salespersons of StyleMore along with their bonuses:

```
Top 2 Salespersons of StyleMore with Bonuses:
Sales Person Name
Mike Davidson    165356
Jane Austin       91596
Name: Dollar Sales, dtype: int64
```

Explanation: The code identifies the top 2 salespersons of StyleMore along with their bonuses. The output shows that 'Mike Davidson' has the highest sales amount with a bonus of 165356, and 'Jane Austin' comes next with a bonus of 91596.

Question-5, we were asked to Rank the top selling product in each category over 2022 on the basis of their dollar sales:

```
Top Selling Products in Each Category in 2022:
Category  Product Name
Jeans     Chinos               31000
Shirts    Full Sleeve Shirt    18331
Shoes     Formal Shoes         73350
Name: Dollar Sales, dtype: int64
aryansharma@Aryans-MacBook-Air G-7(ProcDNA) %
```

Explanation:
The top selling products in each category for the year 2022, ranked on the basis of their dollar sales:

- Category: Jeans
  - Product Name: Chinos
  - Dollar Sales: $31,000
- Category: Shirts
  - Product Name: Full Sleeve Shirt
  - Dollar Sales: $18,331
- Category: Shoes
  - Product Name: Formal Shoes
  - Dollar Sales: $73,350