EDS Mini Project

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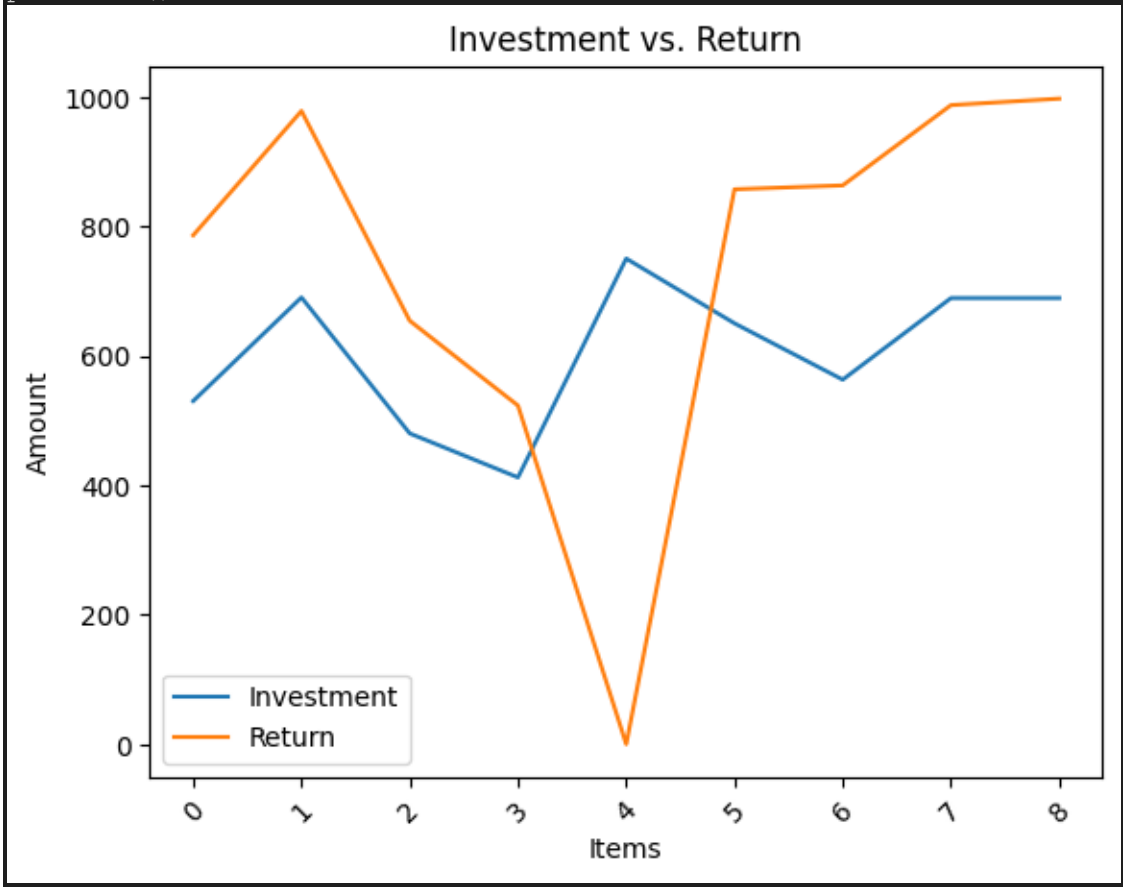
Problem Statement: The manager of Stark Industries has hired you to manage and study data of sales of previous and current quarter. The following csv files contain all the data necessary. Perform the following operations and find a conclusive statement for the following.

Perform following operations on Sheet-1:

- Item that was most profitable in last quarter.
- Variance and standard deviation of all items.
- Mean, median and mode of the total profit.
- Graph comparing investment and return in the following data sheet.
- Net investment, return, profit, and taxes.

```
import pandas as pd
# Read the CSV file
data = pd.read_csv('/content/Pre. Q Sales (1).csv')

# Remove the percentage symbol and convert "% Profit" column to float
so that there should not be error.
data['% Profit'] = data['% Profit'].str.rstrip('%').astype('float')

# Item that was most profitable in last quarter:
most_profitable_item = data.sort_values(by='% Profit',
ascending=False).iloc[0]['Item']
print("Most profitable item in the last quarter:",
most_profitable_item)
OUTPUT-Most profitable item in the last quarter: Automatic Guns


# Variance and standard deviation of all items:
profit_variance = data['% Profit'].var()
profit_std_dev = data['% Profit'].std()
print("Variance of % Profit:", profit_variance)
print("Standard Deviation of % Profit:", profit_std_dev)
Variance of % Profit: 1525.254836111111Standard
Deviation of % Profit: 39.05451108529091

# Graph comparing investment and return in the following data sheet:
import matplotlib.pyplot as plt
investment = data['Investment']
return_value = data['Return']
plt.plot(investment, label='Investment')
plt.plot(return_value, label='Return')
plt.xlabel('Items')
plt.ylabel('Amount')
```

```
plt.title('Investment vs. Return')
plt.legend()
plt.xticks(rotation=45)
plt.show()
```




```
# Net investment, return, profit, and taxes:
net_investment = data['Investment'].sum()
net_return = data['Return'].sum()
net_profit = data['Profit'].sum()
net_taxes = data['Taxation'].sum()
print("Net Investment:", net_investment)
print("Net Return:", net_return)
print("Net Profit:", net_profit)
print("Net Taxes:", net_taxes)
OUTPUT:
Net Investment: 5453
Net Return: 6645
Net Profit: -4.099999999999994
Net Taxes: 1196.1

CSV FILE LINK:
https://drive.google.com/file/d/1nLZ3M8ZXgAQaArVPB4ifSPTQ8Vd-EeAM/view?usp=drivesdk
Google Colab link:
https://colab.research.google.com/drive/1ohQzR2_OTSiOIb0e3oH4PxKurj1ogys1?usp=sharing
```