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Lab 0

write a python program to import & export data using pandas library functions and plot stock details for banks

Code

```
import yfinance as yf
import pandas as pd
import matplotlib.pyplot as plt

Tickers = ["HDFCBANK.NS", "ICICIBANK.NS", "KOTAKBANK.NS"]

data = yf.download(Tickers, start="2024-09-01", end="2024-12-30", group_by='Ticker')

print("First 5 rows of the dataset:")
print(data.head())

print("\n Shape of the dataset:")
print("\n Shape", data.shape)

print("\n Column names:")
print(data.columns)

reliance_data = data['Reliance.NS']
print("\n Summary statistics for Reliance Industries:")
print(reliance_data.describe())
```

reliance_data['Daily Return'] = reliance_data['Close'].pct_change()

plt.figure(figsize=(12,6))
plt.subplot(2,1,1)
reliance_data['Close'].plot(title="Reliance Industries - Closing Price")
plt.subplot(2,1,2)
reliance_data['Daily Return'].plot(title="Reliance Industries - daily return", color='orange')
plt.tight_layout()
plt.show()

~~HDFC~~ ICICI_data = data["~~HDFC~~ ICICI.NS"]
~~HDFC~~ ICICI_data['Daily Return'] = ~~HDFC~~ ICICI_data['Close'].pct_change()

plt.figure(figsize=(12,6))
plt.subplot(2,1,1)
~~reliance_data~~ ICICI_data['Close'].plot(title="ICICI - Closing price")
plt.subplot(2,1,2)
ICICI_data['Daily Return'].plot(title="Reliance Industries - daily return", color='orange')
plt.tight_layout()
plt.show()