3/3/25

LAB-0

To do 1:

Method - 1

```
import pandas as pd
data = {
    'Name': ['Alice', 'Bob', 'Charlie', 'David', 'Eva'],
    'USN': ['1BM22CS025', '1BM22CS030', '1BM22CS035', '1BM22CS040',
            '1BM22CS045'],
    'Marks': [25, 30, 35, 40, 45]
}
df = pd.DataFrame(data)
print("Sample data:")
print(df.head())
```

Method - 2

```
from sklearn.datasets import load_diabetes
dia = load_diabetes()
df = pd.DataFrame(dia.data, columns=dia.feature_names)
df['target'] = dia.target
print("Sample data:")
print(df.head())
```

Method - 3

```
file_path = ('content/sample_data/tcs_housing.csv'
df = pd.read_csv(file_path)
print("Sample data:")
print(df.head())
print("\n")
```

Method - 4

Downloaded

To Do - 2

```
tickers = ["HDFCBANK.NS", "ICICIBANK.NS", "KOTAKBANK.NS"]
data = yf.download(tickers, start='2024-01-01'
        end="2024-12-30", group_by='ticker')
print("First 5 rows:")
print(data.head())

HDFC = data['HDFCBANK.NS']
ICICI = data['ICICIBANK.NS']
KOTAKBANK = data['KOTAKBANK.NS']

Print(HDFC.describe())
Print(ICICI.describe())
Print(KOTAKBANK.describe())
```

HDFC['Daily Return'] = HDFC['close'].pct_change()
ICICI['Daily Return'] = ICICI['close'].pct_change()
KotakBank['Daily Return'] = KOTAKBANK['close'].pct_change()

plt.figure(figsize=(12,6))
plt.subplot(2,1,1)
HDFC['close'].plot(title="HDFC BANK - Closing Price")

ICICI['close'].plot(title='ICICI Bank - Closing Price')

KOTAK['close'].plot(title='KOTAKBANK - Closing Price')

plt.subplot(2,1,2)

HDFC['Daily Return'].plot(title='HDFC BANK - Daily Return', color='orange')

ICICI['Daily Return'].plot(title="ICICI BANK - Daily Return")

KOTAKBANK['DailyReturn'].plot(title="KotakBANK - Daily Return", color='orange'))

plt.tight_layout()
plt.show()

HDFC.to_csv('HDFC.csv')
ICICI.to_csv('ICICI.csv')
KOTAKBANK.to_csv('KOTAK BANK.csv')
print('saved!!')

03.08.2025