

3/3/25

Lab 0

classmate

Date

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- 1) Initializing values directly into DF
 insert known values, fill rows of USN, Name, Marks
 import pandas as pd

```
data = {'USN': ['IBM22CS205', 'IBM22CS206', 'IBM22CS207',
               'IBM22CS208', 'IBM22CS209'],
        'Name': ['Alice', 'Bob', 'Charlie', 'David', 'Eve'],
        'Marks': [85, 92, 78, 95, 88]}
```

```
df = pd.DataFrame(data)
```

df

Output

	USN	Name	Marks
0	IBM22CS205	Alice	85
1	IBM22CS206	Bob	92
2	IBM22CS207	Charlie	78
3	IBM22CS208	David	95
4	IBM22CS209	Eve	88

- 2) Importing datasets from sklearn datasets
 loading diabetes datasets.

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

3) Download diabetes datasets from Mendely using link.

```
df = pd.read_csv('datasetdiabetes.csv')
print("Sample data")
print(df.head())
```

4) Stock Market Data Analysis for
HDFC Bank Ltd, ICICI Bank Ltd, Kotak Mahindra
Bank Ltd.

Start date: 2024-01-01, End Date: 2024-12-30

```
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="2024-01-01",
                    end="2024-12-30", group by='ticker')
```

```
print(data.head())
```

```
hdfc_data = data['HDFCBANK.NS']
```

```
icici_data = data['ICICIBANK.NS']
```

```
km_data = data['KOTAKBANK.NS']
```

```
hdfc_data['Daily Return'] = hdfc_data['Close'].pct_change()
```

```
icici_data['Daily Return'] = icici_data['Close'].pct_change()
```


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

Plot the closing price and daily returns for all the 3 banks.

plt.figure(figsize=(12, 6))

plt.subplot(2, 1, 1)

hdfc_data['Close'].plot(title='hdfc Bank - Closing Price')

plt.subplot(2, 1, 2)

hdfc_data['Daily Return'].plot(title='hdfc Bank - Daily Returns')

plt.tight_layout()

plt.show()

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