Lab - 0

Date 3/3/25
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Method - 1: Initializing values directly into dataframe

```
import pandas as pd

data = {
    'Name': ['A', 'B', 'C'],
    'Age': [25, 30, 27],
    'City': ['NY', 'LA', 'WS']
}

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

Output:

Name	Age	City
Alice	25	NY
Bob	30	LA
Charlie	27	WS

Method - 2: Importing datasets from sklearn.datasets

```
from sklearn.datasets import load_iris
iris = load_iris()
df = pd.DataFrame(iris.data)
print(df.head())
```

sample

Sepal lenght	width	petal lenght	width
5.1	3.5	1.4	0.2
4.9	3.0	1.4	0.2
4.7	3.2	1.3	0.2
4.6	3.1	1.5	0.2
5.0	3.6	1.4	0.2

method-3 : importing datasets from a specific file (.csv)

```
df = pd.read_csv('students.csv')
df.head()
```

output

	Name	Sex.	Marks
0	A	F	95
1	B	M	96
2	C	F	100

Method - 4 : Downloading datasets from a existing repository

```
df = pd.read_csv('openpowerlifting.csv')
df.head()
```

output

	Name	Sex	Equipment	Age
0	A	F	Raw	20
1	B	F	Raw	30
2	C	M	Wraps	40
3	D	M	Wraps	35

Importing Stock market Data

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

tickers = ["Reliance.NS", "TCS.NS",
"INFY.NS"]

data = yf.download(tickers, start
  = "2022-10-01", end = "2023-10-01")

data.head()

print(data.shape)

reliance_data = data['RELIANCE.NS']
print(reliance_data.describe())

# plot the closing price and daily
  returns
plt.figure(figsize=(12,6))
plt.subplot(2,1,1)
reliance_data['Close'].plot(title="R")
plt.subplot(2,1,2)
plt.show()
```