

Lab-0

Import and Export Data

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Import & Export

1) Method - 1

Initializing values directly into DataFrame

```
import pandas as pd
```

```
data = {  
    'Name': ['Alice', 'Bob', 'Charlie', 'David'],  
    'USN': [1, 2, 3, 4],  
    'Marks': [94, 92, 99, 95]  
}
```

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

2) Method 2

Importing datasets from SK learn datasets

```
from sklearn.datasets import load_diabetes
```

```
import load_iris
```

```
iris = load_iris()
```

```
df = pd.DataFrame(iris.data, columns = iris  
                  feature_names)
```

```
df['target'] = iris.target
```

```
print(df.head())
```

3) Method 3

Importing datasets from a specific csv file

```
file_path = 'data.csv'
```

```
df = pd.read_csv(file_path)
```

```
print(df.head())
```

Method 4:

Downloading datasets from existing dataset like kaggle.

```
df = pd.read_csv('./Content/ Diabetes .csv')
print(df.head)
```

To Do

1) Stock Market Data Analysis

→ ~~HDFC B~~

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

```
tickers = ['HDFCBANK.NS', 'ICICBANK.NS',
           'KOTAKBANK.NS']
```

```
data = yf.download(tickers, start =
                  "2024-01-01", end = "2024-12-30",
                  group_by = 'tickers')
```

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

```
print('Shape of the dataset:')
```

```
print(data.shape)
```

```
print("\n Column names:")
```

```
print(data.columns)
```

```
→ hdfc_data = data["HDFC BANK.NS"]  
print("Summary")  
print(hdfc_data.describe())  
  
hdfc_data['Daily Return'] = hdfc_data  
    ['close'].pct_change()  
  
plt.figure(figsize=(12,6))  
plt.subplot(2,1,1)  
hdfc_data['close'].plot(title="HDFC Close")  
plt.subplot(2,1,2)  
hdfc_data['Daily Return'].plot(title="HDFC",  
    color='orange')  
plt.tight_layout()  
plt.show()
```