

LAB - 0

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## Different ways of importing datasets:

Method-1: initialise values directly into dataframe

import pandas as pd

data = {

"USN": ["IBM23CS417", "IBM22CS215", "IBM22CS227", "IBM22CS220",  
"IBM22CS214"]

"Name": ["Rohit", "Rohul", "Gajonara", "Reronth", "Raghavendra"]

"Marks": [85, 90, 78, 88, 92]

}

df = pd.DataFrame(data)

print(df)

Output:

USN	Name	Marks
0 IBM23CS417	Rohit	85
1 IBM22CS215	Rohul	90
2 IBM22CS227	Gajonara	78
3 IBM22CS220	Reronth	88
4 IBM22CS214	Raghavendra	92

## Method-2: Importing datasets from sklearn.datasets

from sklearn.datasets import load\_diabetes

import pandas as pd

diabetes = load\_diabetes()

df = pd.DataFrame(diabetes.data, columns=diabetes.feature\_names)

df["target"] = diabetes.target

print(df, head(1))

Output:

	age	sex	81	52	target
0	0.038	0.050	-0.044	-0.034	151.0
1	-0.001	-0.044	-0.088	-0.019	75.0
2	0.085	0.050	-0.045	-0.034	141.0
3	-0.089	-0.044	0.012	0.024	206.0
4	0.005	-0.044	0.003	0.015	135.0



Method-3: Importing datasets from speedfr.csv file

```
import pandas as pd
df = pd.read_csv('content/010bbeter.csv')
print(df.head())
```

Output:

	Gender	Age	BMI	CLASS		
0	10	F	50	0	24.0	N
1	502	M	26	1	23.0	N
2	735	F	50	2	24.0	N
3	420	F	50	3	24.0	N
4	680	M	33	4	21.0	N

Analysing the Dataset:

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

```
tickers = ["HDFCBANK.NS", "ICICIBANK.NS", "KOTAKBANK.NS"]
date = yf.download(tickers, start="2024-01-01", end="2024-12-30")
```

```
print(*first 5 rows of no dataset: ")
print(data.head())
```

```
print("shape of dataset: ")
print(data.shape)
print("column names: ")
print(data.columns)
```

```
hdfc_data = data['HDFCBANK.NS']
print("Summary stats for HDFC Bank: ")
print(hdfc_data.describe())
```

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

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

```
print("Summary stats for ICICI Bank: ")
print(icici_data.describe())
```

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



```

kotak_data = data['KOTAKBANK.NS']
print("summary stats for KOTAK Bank:")
print(kotak_data.describe())
kotak_data['Daily Return'] = kotak_data['close'].pct_change()
kotak_data['Daily Return'] = kotak_data['close'].pct_change()

```

```

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 Return",
                                color='orange')

```

```

plt.tight_layout()

```

```

plt.show()

```

```

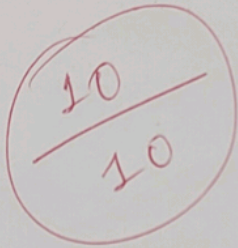
hdfc_data.to_csv('hdfc_stock_data.csv')

```

```

print("HDFC stock data saved to 'hdfc_stock_data.csv'.")

```



Shk  
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