

```
import pandas as pd
data = {
    "USN": ["1BM23CS417", "1BM22CS215", "1BM22CS227", "1BM22CS220", "1BM22CS214"],
    "Name": ["Rohit", "Rahul", "Gajanana", "Revanth", "Raghavendra"],
    "Marks": [85, 90, 78, 88, 92]
}
df = pd.DataFrame(data)
print(df)
```

```

USN      Name  Marks
0  1BM23CS417  Rohit    85
1  1BM22CS215   Rahul    90
2  1BM22CS227  Gajanana  78
3  1BM22CS220  Revanth   88
4  1BM22CS214  Raghavendra 92
```

```
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())
```

```

age      sex      bmi      bp      s1      s2      s3 \
0  0.038076  0.050680  0.061696  0.021872 -0.044223 -0.034821 -0.043401
1 -0.001882 -0.044642 -0.051474 -0.026328 -0.008449 -0.019163  0.074412
2  0.085299  0.050680  0.044451 -0.005670 -0.045599 -0.034194 -0.032356
3 -0.089063 -0.044642 -0.011595 -0.036656  0.012191  0.024991 -0.036038
4  0.005383 -0.044642 -0.036385  0.021872  0.003935  0.015596  0.008142

s4      s5      s6  target
0 -0.002592  0.019907 -0.017646  151.0
1 -0.039493 -0.068332 -0.092204   75.0
2 -0.002592  0.002861 -0.025930  141.0
3  0.034309  0.022688 -0.009362  206.0
4 -0.002592 -0.031988 -0.046641  135.0
```

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

```

ID  No_Patien Gender AGE  Urea  Cr  HbA1c  Chol  TG  HDL  LDL  VLDL \
0  502      17975    F   50   4.7   46   4.9   4.2  0.9  2.4  1.4  0.5
1  735      34221    M   26   4.5   62   4.9   3.7  1.4  1.1  2.1  0.6
2  420      47975    F   50   4.7   46   4.9   4.2  0.9  2.4  1.4  0.5
3  680      87656    F   50   4.7   46   4.9   4.2  0.9  2.4  1.4  0.5
4  504      34223    M   33   7.1   46   4.9   4.9  1.0  0.8  2.0  0.4

BMI CLASS
0  24.0    N
1  23.0    N
2  24.0    N
3  24.0    N
4  21.0    N
```

```
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("First 5 rows of the dataset:")
print(data.head())
```

```

[*****100%*****] 3 of 3 completedFirst 5 rows of the dataset:
Ticker      HDFCBANK.NS \
Price      Open      High      Low      Close      Volume
Date
2024-01-01  1683.017598  1686.125187  1669.206199  1675.223999  7119843
2024-01-02  1675.914685  1679.860799  1665.950651  1676.210571  14621046
2024-01-03  1679.071480  1681.735059  1646.466666  1650.363525  14194881
2024-01-04  1655.394910  1672.116520  1648.193203  1668.071777  13367028
2024-01-05  1664.421596  1681.932477  1645.628180  1659.538208  15944735

Ticker      KOTAKBANK.NS \
```

Price Date	Open	High	Low	Close	Volume
2024-01-01	1906.909954	1916.899006	1891.027338	1907.059814	1425902
2024-01-02	1905.911108	1905.911108	1858.063525	1863.008179	5120796
2024-01-03	1861.959234	1867.952665	1845.627158	1863.857178	3781515
2024-01-04	1869.451068	1869.451068	1858.513105	1861.559692	2865766
2024-01-05	1863.457575	1867.852782	1839.383985	1845.577148	7799341

Ticker Price Date	ICICIBANK.NS Open	High	Low	Close	Volume
2024-01-01	983.086778	996.273246	982.541485	990.869812	7683792
2024-01-02	988.490253	989.134730	971.883221	973.866150	16263825
2024-01-03	976.295294	979.567116	966.777197	975.650818	16826752
2024-01-04	977.980767	980.707295	973.519176	978.724365	22789140
2024-01-05	979.567084	989.779158	975.402920	985.218445	14875499

Start coding or [generate](#) with AI.

```
print("\nShape of the dataset:")
print(data.shape)
print("\nColumn names:")
print(data.columns)
```



Shape of the dataset:
(244, 15)

Column names:

```
MultiIndex([( 'HDFCBANK.NS', 'Open'),
              ( 'HDFCBANK.NS', 'High'),
              ( 'HDFCBANK.NS', 'Low'),
              ( 'HDFCBANK.NS', 'Close'),
              ( 'HDFCBANK.NS', 'Volume'),
              ( 'KOTAKBANK.NS', 'Open'),
              ( 'KOTAKBANK.NS', 'High'),
              ( 'KOTAKBANK.NS', 'Low'),
              ( 'KOTAKBANK.NS', 'Close'),
              ( 'KOTAKBANK.NS', 'Volume'),
              ( 'ICICIBANK.NS', 'Open'),
              ( 'ICICIBANK.NS', 'High'),
              ( 'ICICIBANK.NS', 'Low'),
              ( 'ICICIBANK.NS', 'Close'),
              ( 'ICICIBANK.NS', 'Volume')],
            names=['Ticker', 'Price'])
```

```
hdfc_data = data['HDFCBANK.NS']
print("\nSummary statistics 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()
```



Summary statistics for HDFC Bank:

	Price	Open	High	Low	Close	Volume
count	244.000000	244.000000	244.000000	244.000000	244.000000	2.440000e+02
mean	1601.375295	1615.443664	1588.221245	1601.898968	2.119658e+07	
std	134.648125	134.183203	132.796819	133.748372	2.133860e+07	
min	1357.463183	1372.754374	1345.180951	1365.404785	8.798460e+05	
25%	1475.316358	1494.072805	1460.259509	1474.564087	1.274850e+07	
50%	1627.724976	1638.350037	1616.000000	1625.950012	1.686810e+07	
75%	1696.474976	1711.425018	1679.250000	1697.062531	2.295014e+07	
max	1877.699951	1880.000000	1858.550049	1871.750000	2.226710e+08	

```
<ipython-input-37-6c3308f04f5f>:5: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame.
Try using .loc[row_indexer,col_indexer] = value instead
```

See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/stable/user_guide/indexing.html#returning-a-view-versus-a-copy

```
hdfc_data['Daily Return'] = hdfc_data['Close'].pct_change()
<ipython-input-37-6c3308f04f5f>:6: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame.
Try using .loc[row_indexer,col_indexer] = value instead
```

See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/stable/user_guide/indexing.html#returning-a-view-versus-a-copy

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

```
icici_data = data['ICICIBANK.NS']
print("\nSummary statistics 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()
```



Summary statistics for ICICI Bank:

	Price	Open	High	Low	Close	Volume
count	244.000000	244.000000	244.000000	244.000000	244.000000	2.440000e+02
mean	1161.723560	1173.687900	1151.318979	1162.751791	1162.751791	1.539172e+07
std	104.905646	105.668229	105.083015	105.520481	105.520481	9.503609e+06
min	965.637027	979.567116	961.869473	971.387512	971.387512	1.007022e+06
25%	1073.818215	1085.368782	1067.386038	1075.107086	1075.107086	1.014533e+07
50%	1169.443635	1178.450012	1157.361521	1165.470703	1165.470703	1.291768e+07
75%	1248.512512	1261.399994	1236.649963	1250.812531	1250.812531	1.755770e+07
max	1344.900024	1362.349976	1340.050049	1346.099976	1346.099976	7.325777e+07

<ipython-input-38-ad6a8243265e>:5: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame.
Try using .loc[row_indexer,col_indexer] = value instead

See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/stable/user_guide/indexing.html#returning-a-view-versus-a-copy

```
icici_data['Daily Return'] = icici_data['Close'].pct_change()
<ipython-input-38-ad6a8243265e>:6: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame.
Try using .loc[row_indexer,col_indexer] = value instead
```

See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/stable/user_guide/indexing.html#returning-a-view-versus-a-copy

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

```
kotak_data = data['KOTAKBANK.NS']
print("\nSummary statistics 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()
```



Summary statistics for KOTAK Bank:

	Price	Open	High	Low	Close	Volume
count	244.000000	244.000000	244.000000	244.000000	244.000000	2.440000e+02
mean	1771.245907	1787.548029	1754.395105	1770.792347	1770.792347	5.736598e+06
std	62.189675	61.978802	62.765980	62.594747	62.594747	5.388927e+06
min	1581.266899	1586.161558	1542.159736	1545.006592	1545.006592	1.824890e+05
25%	1733.974927	1754.131905	1719.028421	1736.297058	1736.297058	3.300380e+06
50%	1769.500000	1789.450012	1758.099976	1773.681030	1773.681030	4.307680e+06
75%	1809.925018	1826.998164	1789.912506	1808.155670	1808.155670	6.159475e+06
max	1935.000000	1942.000000	1909.599976	1934.699951	1934.699951	6.617908e+07

<ipython-input-39-dd04a300110c>:5: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame.
Try using .loc[row_indexer,col_indexer] = value instead

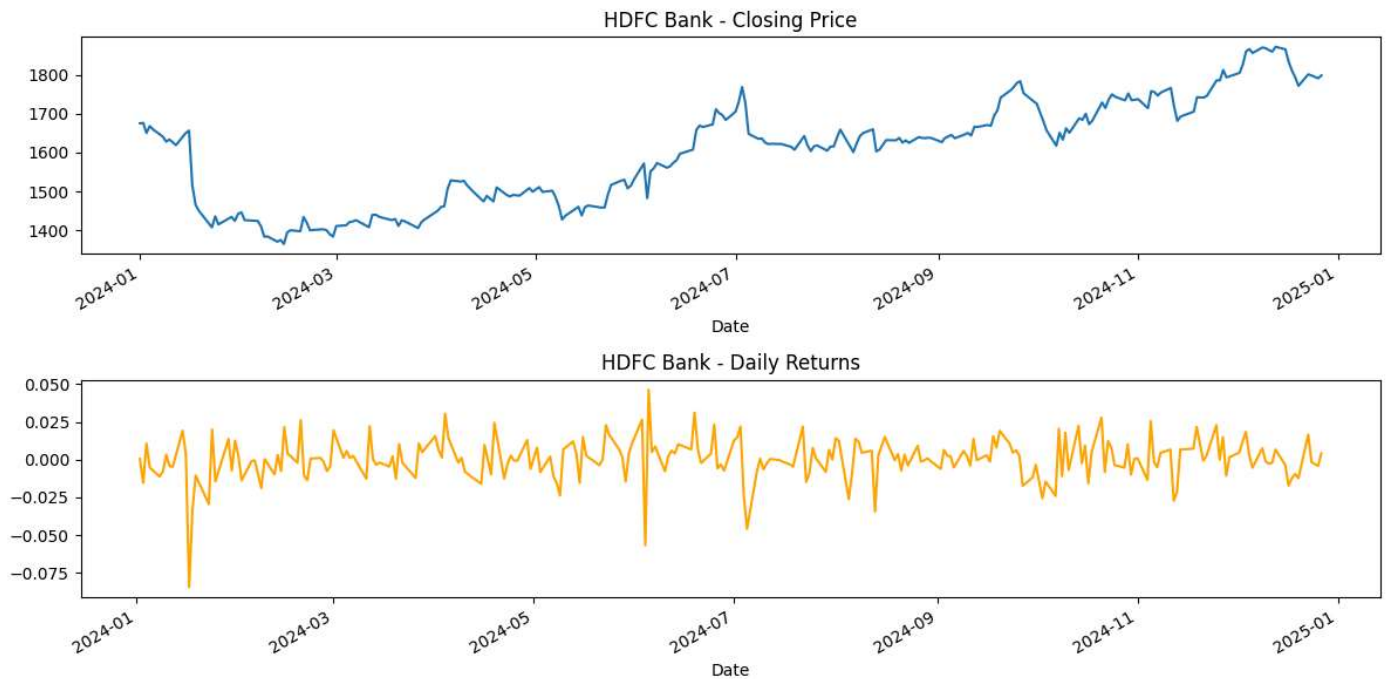
See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/stable/user_guide/indexing.html#returning-a-view-versus-a-copy

```
kotak_data['Daily Return'] = kotak_data['Close'].pct_change()
<ipython-input-39-dd04a300110c>:6: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame.
Try using .loc[row_indexer,col_indexer] = value instead
```

See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/stable/user_guide/indexing.html#returning-a-view-versus-a-copy

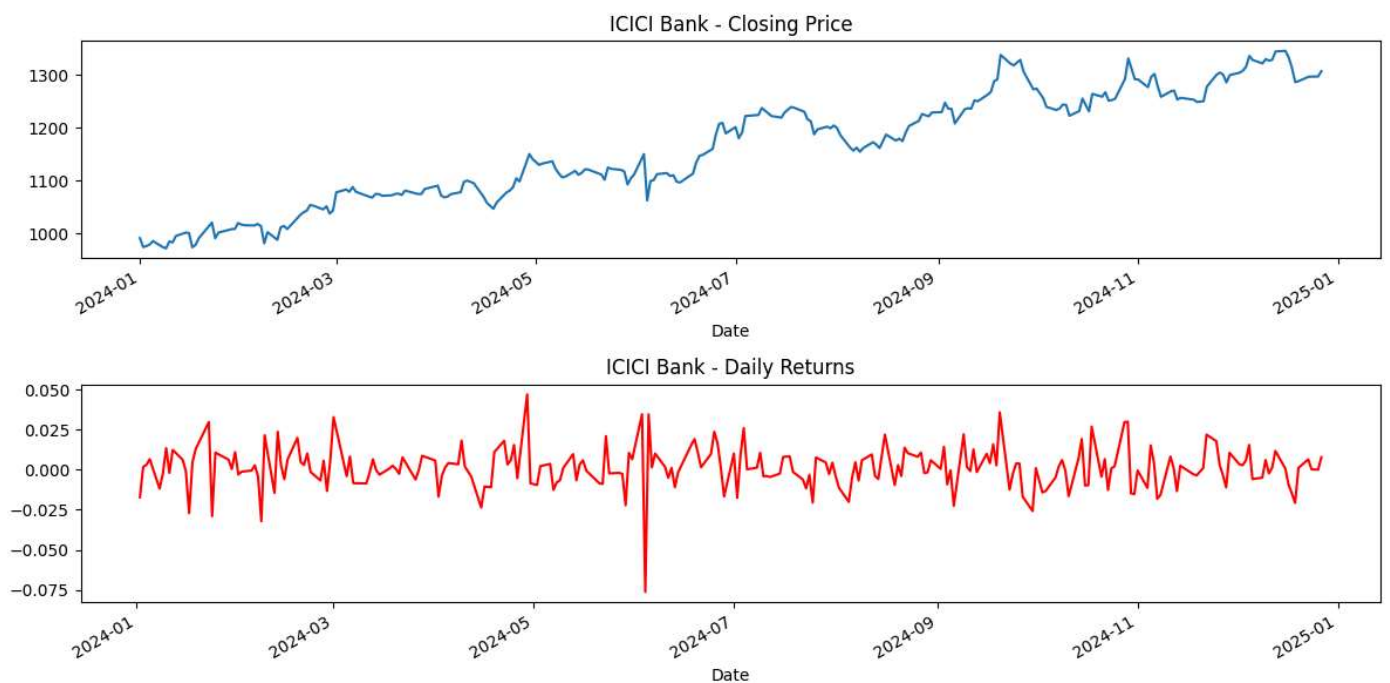
```
kotak_data['Daily Return'] = kotak_data['Close'].pct_change()
```

```
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 Returns", 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'.")
```



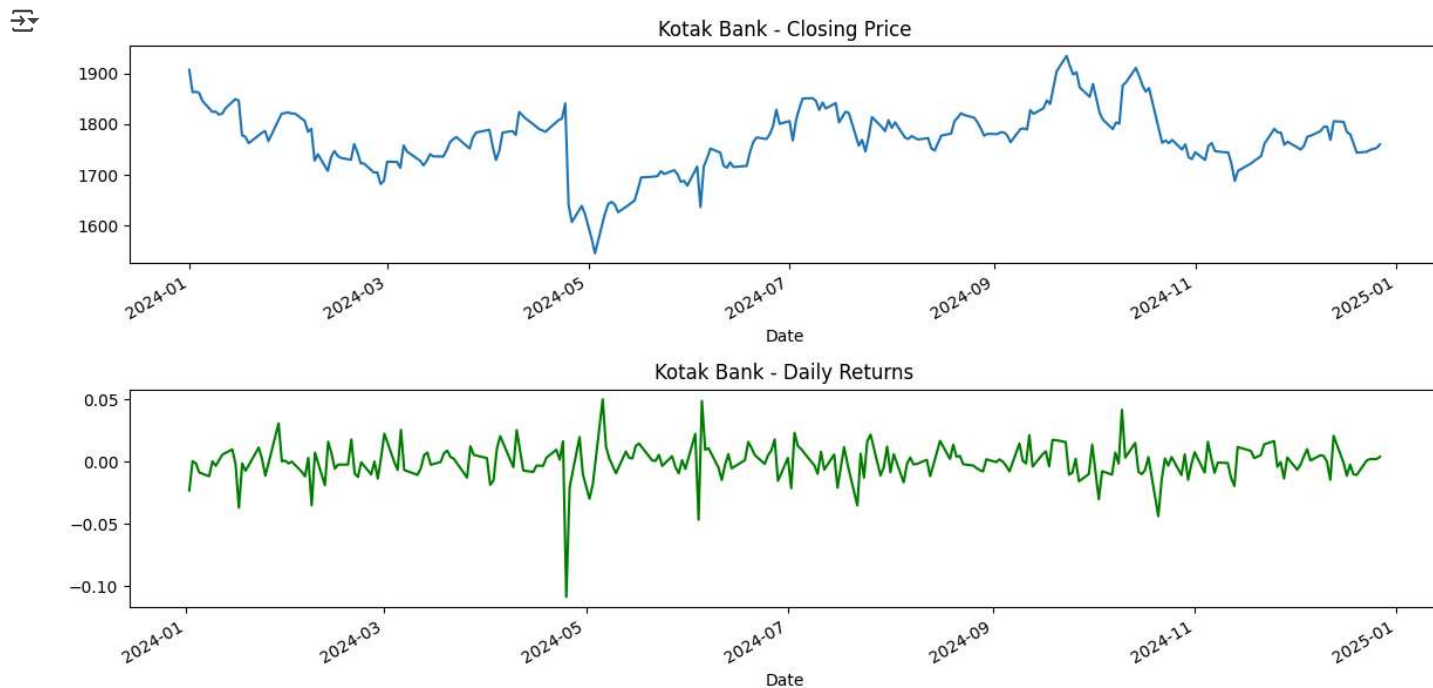
HDFC stock data saved to 'hdfc_stock_data.csv'.

```
plt.figure(figsize=(12, 6))
plt.subplot(2, 1, 1)
icici_data['Close'].plot(title="ICICI Bank - Closing Price")
plt.subplot(2, 1, 2)
icici_data['Daily Return'].plot(title="ICICI Bank - Daily Returns", color='red')
plt.tight_layout()
plt.show()
icici_data.to_csv('icici_stock_data.csv')
print("ICICI stock data saved to 'icici_stock_data.csv'.")
```



ICICI stock data saved to 'icici_stock_data.csv'.

```
plt.figure(figsize=(12, 6))
plt.subplot(2, 1, 1)
kotak_data['Close'].plot(title="Kotak Bank - Closing Price")
plt.subplot(2, 1, 2)
kotak_data['Daily Return'].plot(title="Kotak Bank - Daily Returns", color='green')
plt.tight_layout()
plt.show()
kotak_data.to_csv('kotak_stock_data.csv')
print("Kotak stock data saved to 'kotak_stock_data.csv'.")
```



Kotak stock data saved to 'kotak_stock_data.csv'.