

Lab 0

	Name	USN	Marks
0	Alice	1	94
1	Bob	2	92
2	Charlie	3	99
3	David	4	95

	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

	Product	Quantity	Price	Sales	Region
0	Laptop	5	1000	5000	North
1	Mouse	15	20	300	West
2	Keyboard	10	50	500	East
3	Monitor	8	200	1600	South
4	Laptop	12	950	11400	North

	ID	No_Pation	Gender	AGE	Urea	Cr	HbA1c	Chol	TG	HDL	LDL	VLDL	BMI	CLASS
0	502	17975	F	50	4.7	46	4.9	4.2	0.9	2.4	1.4	0.5	24.0	N
1	735	34221	M	26	4.5	62	4.9	3.7	1.4	1.1	2.1	0.6	23.0	N
2	420	47975	F	50	4.7	46	4.9	4.2	0.9	2.4	1.4	0.5	24.0	N
3	680	87656	F	50	4.7	46	4.9	4.2	0.9	2.4	1.4	0.5	24.0	N
4	504	34223	M	33	7.1	46	4.9	4.9	1.0	0.8	2.0	0.4	21.0	N

```

YF.download() has changed argument auto_adjust default to True
[*****100%*****] 3 of 3 completedFirst 5 rows of the dataset:

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Ticker	ICICIBANK.NS					
Price	Open	High	Low	Close	Volume	
Date						
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	

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	Open	High	Low	Close	Volume	
Date						
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	

```

Shape of the dataset:
(244, 15)

```

```

Column names:

```

```

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

```

Summary statistics for Reliance Industries:

	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-27-b074f2e699e6>:5: SettingWithCopyWarning:

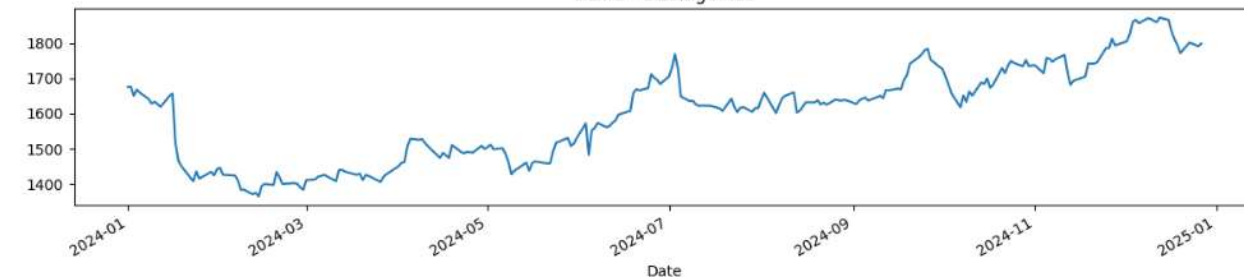
A value is trying to be set on a copy of a slice from a DataFrame.

Try using .loc[row\_indexer,col\_indexer] = value instead

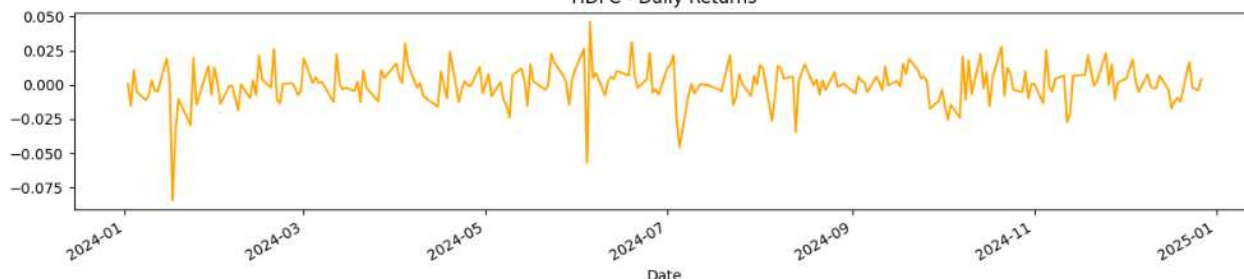
See the caveats in the documentation: [https://pandas.pydata.org/pandas-docs/stable/user\\_guide/indexing.html#returning-a-view-versus-a-copy](https://pandas.pydata.org/pandas-docs/stable/user_guide/indexing.html#returning-a-view-versus-a-copy)

hdfc\_data['Daily Return'] = hdfc\_data['Close'].pct\_change()

HDFC - Closing Price



HDFC - Daily Returns



Summary statistics for ICICI Industries:

	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	1.539172e+07	
std	104.905646	105.668229	105.083015	105.520481	9.503609e+06	
min	965.637027	979.567116	961.869473	971.387512	1.007022e+06	
25%	1073.818215	1085.368782	1067.386038	1075.107086	1.014533e+07	
50%	1169.443635	1178.450012	1157.361521	1165.470703	1.291768e+07	
75%	1248.512512	1261.399904	1236.649963	1250.812531	1.755770e+07	
max	1344.900024	1362.349976	1340.050049	1346.099976	7.325777e+07	

<ipython-input-23-8d48bdc5b83>:5: SettingWithCopyWarning:

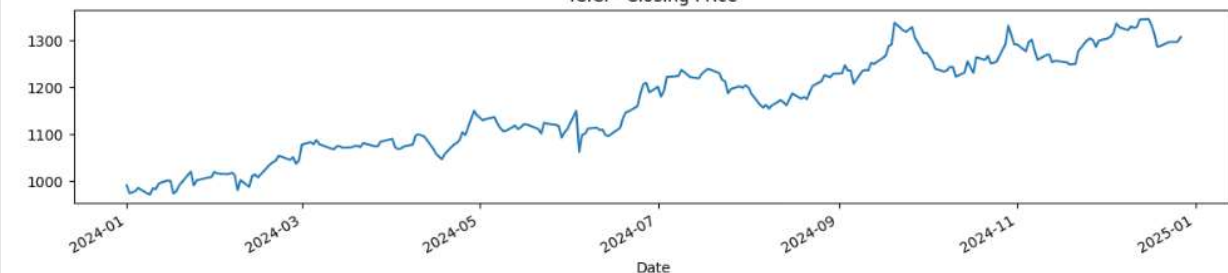
A value is trying to be set on a copy of a slice from a DataFrame.

Try using .loc[row\_indexer,col\_indexer] = value instead

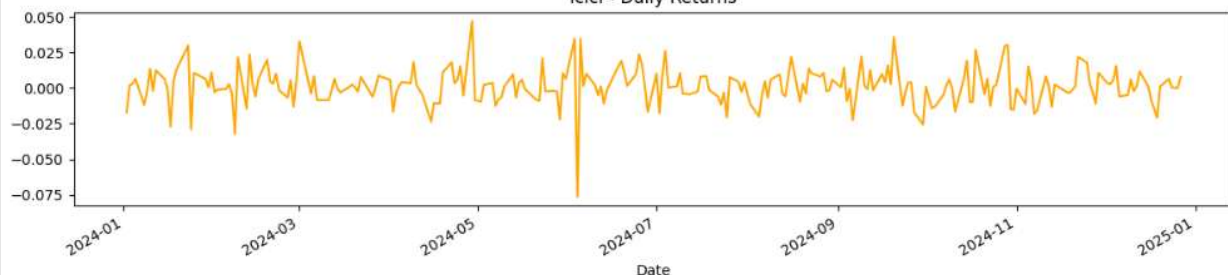
See the caveats in the documentation: [https://pandas.pydata.org/pandas-docs/stable/user\\_guide/indexing.html#returning-a-view-versus-a-copy](https://pandas.pydata.org/pandas-docs/stable/user_guide/indexing.html#returning-a-view-versus-a-copy)

icici\_data['Daily Return'] = icici\_data['Close'].pct\_change()

ICICI - Closing Price



icici - Daily Returns



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

<ipython-input-26-3d0417f893c3>: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](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()`

