

BSE finance

```
In [19]: from bsedata.bse import BSE
import pandas as pd
```

```
In [44]: b = BSE()
print(b)
```

Driver Class for Bombay Stock Exchange (BSE)

```
In [45]: #to execute "updated ScriptCodes"
b = BSE(update_codes = True)
```

```
In [46]: q = b.getQuote('534976')
Qdf = pd.DataFrame(q)
Qdf
```

Out[46]:

	companyName	currentValue	change	pChange	updatedOn	priceBand	securityID	scripCode	group	faceValue	...	weightedAvgPrice	totalTradedValue	total
1	V-MART RETAIL LTD.	2721.85	56.70	2.13	27 Jan 23 04:00 PM		VMART	534976	A/ S&P BSE 500	10.00	...	2653.60	0.29 Cr.	
2	V-MART RETAIL LTD.	2721.85	56.70	2.13	27 Jan 23 04:00 PM		VMART	534976	A/ S&P BSE 500	10.00	...	2653.60	0.29 Cr.	
3	V-MART RETAIL LTD.	2721.85	56.70	2.13	27 Jan 23 04:00 PM		VMART	534976	A/ S&P BSE 500	10.00	...	2653.60	0.29 Cr.	
4	V-MART RETAIL LTD.	2721.85	56.70	2.13	27 Jan 23 04:00 PM		VMART	534976	A/ S&P BSE 500	10.00	...	2653.60	0.29 Cr.	
5	V-MART RETAIL LTD.	2721.85	56.70	2.13	27 Jan 23 04:00 PM		VMART	534976	A/ S&P BSE 500	10.00	...	2653.60	0.29 Cr.	

5 rows × 27 columns

```
In [47]: tg = b.topGainers()
tg_df = pd.DataFrame(tg)
tg_df
```

Out[47]:

	securityID	scripCode	LTP	change	pChange
0	SANDUMA	504918	952.05	59.70	6.69
1	TATAMOTORS	500570	445.55	26.55	6.34
2	JINDALSAW	500378	116.50	6.60	6.01
3	BAJAJ-AUTO	532977	3,937.70	220.30	5.93
4	CHENNPETRO	500110	241.65	12.25	5.34

```
In [49]: tl = b.topLosers()
tl_df = pd.DataFrame(tl)
tl_df
```

Out[49]:

	securityID	scripCode	LTP	change	pChange
0	ATGL	542066	2,934.55	-733.60	-20.00
1	ADANIGREEN	541450	1,484.50	-370.95	-19.99
2	ADANITRANS	539254	2,009.70	-502.05	-19.99
3	GTINFRA	532775	0.87	-0.21	-19.44
4	DIXON	540699	2,718.85	-645.80	-19.19

```
In [24]: #reading the List_Scrip.csv file for Script_Codes
script_code = pd.read_csv('D:\mydocs\machine learning\bse_finance\Equity.csv')
script_code
```

Out[24]:

	Security Code	Issuer Name	Security Id	Security Name	Status	Group	Face Value	ISIN No	Industry	Instrument	Sector Name	Industry Ne Nam
500002	ABB India Limited	ABB	ABB India Limited	Active	A	2.00	INE117A01022	Heavy Electrical Equipment	Equity	Industrials	Capital Goods	Electric Equipmei
500003	Aegis Logistics Ltd.	AEGISLOG	AEGIS LOGISTICS LTD.	Active	A	1.00	INE208C01025	Trading - Gas	Equity	Energy	Oil, Gas & Consumable Fuels	Ge
500008	Amara Raja Batteries Ltd	AMARAJABAT	AMARA RAJA BATTERIES LTD.	Active	A	1.00	INE885A01032	Auto Components & Equipments	Equity	Consumer Discretionary	Automobile and Auto Components	Aut Component

500009	Ambaral Sarabhai Enterprise Ltd.,	AMBALALSA	AMBALAL SARABHAI ENTERPRISES LTD.	Active	X	10.00	INE432A01017	Pharmaceuticals	Equity	Healthcare	Healthcare	Pharmaceutica & Biotechnolog
500010	Housing Development Finance Corp.Lt	HDFC	HOUSING DEVELOPMENT FINANCE CORP.LTD.	Active	A	2.00	INE001A01036	Housing Finance Company	Equity	Financial Services	Financial Services	Financ
...
750758	Markolines Pavement Technologies Limited	MARKO-RE	Markolines Pavement Technologies Ltd	Active	R	0.05	INE0FW020016		-	-	-	
750759	Indowind Energy Ltd.	INDO-RE	Indowind Energy Ltd	Active	R	0.05	INE227G20018		-	-	-	
780014	Has Lifestyle Limited	HASJUICE	Has Lifestyle Ltd	Active	IP	10.00	INE888Q01016		Equity	-	-	
780016	Web Element Solutions Limited	WEBSL	Web Element Solutions Ltd	Active	IP	10.00	INE562Q01017		Equity	-	-	
780018	Adhiraj Distributors Limited	ADHIRAJ	Adhiraj Distributors Ltd	Active	IP	10.00	INE067R01015		Equity	-	-	

4102 rows × 14 columns



In [39]: script_code.columns

Out[39]: Index(['Security Code', 'Issuer Name', 'Security Id', 'Security Name', 'Status', 'Group', 'Face Value', 'ISIN No', 'Industry', 'Instrument', 'Sector Name', 'Industry New Name', 'Igroup Name', 'ISubgroup Name'], dtype='object')

NSE finance

In [1]: from nsepy import get_history
from datetime import date

In [12]: data = get_history(symbol='YESBANK', start=date(2023, 1, 31), end=date(2023, 1, 31))
#data[['Close']].plot(kind='Line')
data[['Prev Close']]

Out[12]:

Prev Close	
Date	
2023-01-31	17.1

In [15]: sbin = get_history(symbol='SBIN', start=date(2023, 1, 31), end=date(2023, 2, 1))
#sbin[['Close']]
sbin[['Prev Close', 'Close']]

Out[15]:

Prev Close Close		
Date		
2023-01-31	538.2	553.5

In [4]: stock = get_history(symbol='TATAMOTORS', start=date(2023, 1, 1), end=date(2023, 1, 27))
#stock[["Turnover"]].plot()
stock

Out[4]:

	Symbol	Series	Prev Close	Open	High	Low	Last	Close	VWAP	Volume	Turnover	Trades	Deliverable Volume	%Deliverble
Date														
2023-01-02	TATAMOTORS	EQ	387.95	392.50	396.00	391.00	395.00	394.80	394.17	10501357	4.139355e+14	142685	3093993	0.2946
2023-01-03	TATAMOTORS	EQ	394.80	396.00	398.35	393.00	393.90	393.90	395.21	9431220	3.727287e+14	133270	3054642	0.3239
2023-01-04	TATAMOTORS	EQ	393.90	394.80	394.80	385.00	385.75	385.60	387.30	16121049	6.243666e+14	172074	8186814	0.5078
2023-01-05	TATAMOTORS	EQ	385.60	387.90	388.75	382.50	387.00	386.90	386.13	10443908	4.032692e+14	130918	4250557	0.4070
2023-01-06	TATAMOTORS	EQ	386.90	386.10	388.40	381.00	382.05	382.00	384.04	8715469	3.347122e+14	147467	3787825	0.4346
2023-01-09	TATAMOTORS	EQ	382.00	386.35	392.70	385.00	388.95	389.45	389.87	14693099	5.728445e+14	167573	7169022	0.4879
2023-01-10	TATAMOTORS	EQ	389.45	400.00	417.75	400.00	412.50	412.90	411.86	54021379	2.224949e+15	467152	15127215	0.2800
2023-01-11	TATAMOTORS	EQ	412.90	415.75	420.00	413.55	417.20	418.20	417.61	22224361	9.281097e+14	220634	9560380	0.4302
2023-01-12	TATAMOTORS	EQ	418.20	420.30	420.50	410.05	412.20	412.25	414.69	12479034	5.174961e+14	143171	4850395	0.3887
2023-01-13	TATAMOTORS	EQ	412.25	413.00	416.35	408.00	411.70	411.50	411.59	10449630	4.300974e+14	129743	3366155	0.3221
2023-01-16	TATAMOTORS	EQ	411.50	413.50	414.90	407.60	412.90	413.00	411.40	11462140	4.715567e+14	144517	5787386	0.5049
2023-01-17	TATAMOTORS	EQ	413.00	413.00	419.45	412.50	414.70	415.30	416.64	12337969	5.140469e+14	148089	5714483	0.4632

2023-01-18	TATAMOTORS	EQ	415.30	415.90	415.95	407.45	408.80	408.40	409.94	13310316	5.456490e+14	201954	7210959	0.5418
2023-01-19	TATAMOTORS	EQ	408.40	406.50	407.80	400.10	400.75	400.75	403.93	13126520	5.302207e+14	209594	6174365	0.4704
2023-01-20	TATAMOTORS	EQ	400.75	404.00	412.50	401.20	402.95	403.15	406.24	23906114	9.711560e+14	227306	10926518	0.4571
2023-01-23	TATAMOTORS	EQ	403.15	407.00	410.95	405.00	408.00	408.40	409.03	13113183	5.363653e+14	144746	7326220	0.5587
2023-01-24	TATAMOTORS	EQ	408.40	410.00	424.00	410.00	422.00	422.15	419.81	30197475	1.267716e+15	281507	14336646	0.4748
2023-01-25	TATAMOTORS	EQ	422.15	423.75	427.25	417.70	418.60	419.05	420.93	22975581	9.671024e+14	260064	10184357	0.4433
2023-01-27	TATAMOTORS	EQ	419.05	438.00	453.40	435.15	445.25	445.60	444.86	63360467	2.818651e+15	621705	21810513	0.3442

executing stock_market through nsetools

In [16]: `from nsetools import Nse`

In [17]: `nse = Nse()
print(nse)`

Driver Class for National Stock Exchange (NSE)

In [20]: `q = nse.get_quote('MRF')
data = pd.DataFrame(q, index=[1])
data`

Out[20]:

	pricebandupper	symbol	applicableMargin	bcEndDate	totalSellQuantity	adhocMargin	companyName	marketType	exDate	bcStartDate	...	buyQuantity3	bu
1	99956.3	MRF	14.14	None	1.0	None	MRF Limited	N	17-NOV-22	None	...	None	

1 rows x 68 columns

In [21]: `top_gainers = nse.get_top_gainers()
pd.DataFrame(top_gainers)`

Out[21]:

	symbol	series	openPrice	highPrice	lowPrice	ltp	previousPrice	netPrice	tradedQuantity	turnoverInLakhs	lastCorpAnnouncementDate	lastCorp
0	ICICIBANK	EQ	843.45	875.20	823.15	850.05	831.90	2.18	39237711.0	334768.30	08-Aug-2022	Di
1	JSWSTEEL	EQ	722.00	738.70	719.80	731.45	716.45	2.09	3271508.0	23848.31	04-Jul-2022	Meet
2	ITC	EQ	353.00	365.70	329.10	359.60	352.35	2.06	64518967.0	228235.85	26-May-2022	Dividi
3	TATASTEEL	EQ	120.10	124.15	119.30	122.05	119.70	1.96	72919626.0	89078.62	28-Jul-2022	Face Di
4	BRITANNIA	EQ	4329.90	4444.50	4326.85	4389.95	4317.60	1.68	622541.0	27271.22	20-Jun-2022	Meet
5	CIPLA	EQ	1019.00	1035.90	1015.10	1033.00	1017.95	1.48	1598213.0	16442.73	08-Aug-2022	Di
6	HDFCBANK	EQ	1624.00	1665.00	1606.00	1625.50	1603.50	1.37	8651395.0	141324.00	12-May-2022	Dividei
7	TATACONSUM	EQ	737.25	748.40	731.25	739.10	729.50	1.32	933031.0	6908.63	09-Jun-2022	Meet
8	EICHERMOT	EQ	3280.00	3354.95	3240.00	3305.70	3263.35	1.30	885327.0	29249.34	12-Aug-2022	Meeting
9	HDFC	EQ	2650.00	2729.85	2620.50	2655.00	2622.95	1.22	4406327.0	117621.61	31-May-2022	Divi

In [22]: `top_losers = nse.get_top_losers()
pd.DataFrame(top_losers)`

Out[22]:

	symbol	series	openPrice	highPrice	lowPrice	ltp	previousPrice	netPrice	tradedQuantity	turnoverInLakhs	lastCorpAnnouncementDate	lastCorp
0	ADANIENT	EQ	2995.00	3010.75	1941.20	2179.75	2973.90	-26.70	13525314.0	343571.38	14-Jul-2022	Div
1	ADANIPORTS	EQ	627.00	629.00	459.50	504.00	612.65	-17.73	46557720.0	253558.00	14-Jul-2022	Div
2	HDFCLIFE	EQ	582.90	584.65	502.35	516.40	578.85	-10.79	22671272.0	120091.99	31-May-2022	Divide
3	SBILIFE	EQ	1219.55	1228.75	1068.85	1114.50	1219.55	-8.61	8470232.0	96243.01	29-Mar-2022	Interin
4	BAJAJFINSV	EQ	1348.00	1360.00	1246.85	1269.35	1342.45	-5.45	4761664.0	61545.46	13-Sep-2022	Face Division)
5	SBIN	EQ	561.40	565.00	499.35	527.00	553.50	-4.79	38218810.0	206920.46	25-May-2022	Divide
6	INDUSINDBK	EQ	1094.00	1119.00	990.00	1040.40	1082.95	-3.93	7563064.0	81138.06	11-Aug-2022	Meeti

7	BPCL	EQ	343.25	344.70	330.00	335.45	343.25	-2.27	4179113.0	14117.88	19-Aug-2022	Meeting
8	UPL	EQ	765.10	771.60	730.00	740.00	757.20	-2.27	3623038.0	27188.36	27-Jul-2022	Divi
9	M&M	EQ	1386.55	1390.00	1322.00	1350.10	1378.75	-2.08	3010838.0	41115.40	14-Jul-2022	Meeti



In []: