Twitter Thread by Indian Quant

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Nano Course On Python For Trading

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Module 2

In this post, I will attempt to show a simple Python code to download the past 5 years' Nifty50 stocks EOD Data using the NSEpy library in less than 2

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Module 1

Python makes it very easy to analyze and visualize time series data when you\u2019re a beginner. It's easier when you don't have to install python on your PC (that's why it's a nano course, you'll learn python...

— Indian Quant (@indian_quant) December 13, 2021

The first few lines are simple to import statements. Pulling public library NSEpy https://t.co/OW1TPC7QXC that we can use to extract historical and real-time data from NSE's website. Then, we import the most popular pandas library.

```
1  from nsepy import get_history
2  from datetime import date, datetime
3  import pandas as pd
4
```

Then I define a function "fetchData" that fetches the data using the built-in get_history function of the nsepy library. I adjust the original data frame to store open, high, low and close prices. The original data frame sends more columns - Volume, Turnover, %Deliverable, etc.

```python
def fetchData(ticker,startDate,endDate):

    # save O-H-L-C columns
    stock = get_history(symbol=ticker, start=startDate, end=endDate)
    df = pd.DataFrame()
    stock.reset_index(inplace=True)
    df['Date'] = stock['Date']
    df['Open'] = stock['Open']
    df['High'] = stock['High']
    df['Low'] = stock['Low']
    df['Close'] = stock['Close']

    return df
```

I then go ahead and put all Nifty50 tickers in a Python list named nifty50list. I also set our start-date (2014-01-01), end-date(2022-01-21) in the YYYY-MM-DD format, and the path where I want to save my files on my PC.

```python
# LIST OF NIFTY 50 Stocks
nifty50list = ['ADANIPORTS','ASIANPAINT', 'AXISBANK', 'BAJAJ-AUTO', 'BAJFINANCE', 'BAJAJFINSV', 'BPCL', 'BHARTIARTL',
 'BRITANNIA', 'CIPLA', 'COALINDIA', 'DIVISLAB', 'DRREDDY', 'EICHERMOT', 'GRASIM', 'HCLTECH', 'HDFCBANK', 'HDFCLIFE',
 'HEROMOTOCO', 'HINDALCO', 'HINDUNILVR', 'HDFC', 'ICICIBANK', 'ITC', 'IOC', 'INDUSINDBK', 'INFY', 'JSWSTEEL', 'KOTAKBANK',
 'LT', 'M&M', 'MARUTI', 'NTPC', 'NESTLEIND', 'ONGC', 'POWERGRID', 'RELIANCE', 'SBILIFE', 'SHREECEM', 'SBIN', 'SUNPHARMA',
 'TCS', 'TATACONSUM', 'TATAMOTORS', 'TATASTEEL', 'TECHM', 'TITAN', 'UPL', 'ULTRACEMCO', 'WIPRO']
start_date = date(2014,1,1)
end_date = date(2022,1,21)

#path to save the data
path = "C:\\Users\\pvarshney\\Downloads\\BlackField Research\\Videos\\Nifty 50 Data\\"
```

Finally, I loop through all the Nifty50 tickers calling the fetchData function on each of them and saving them in the path specified above in the CSV format e.g. ADANIPORTS.csv, which came first. This process is repeated for each and every symbol in Nifty50.

```python
for ticker in nifty50list:

    #fetch data for this stock
    tickerData = fetchData(ticker,start_date,end_date)

    tickerData.to_csv(path+ ticker+'.csv')
```

The result is 2 minutes to download 50 stocks worth of data! Each ticker's data is saved in a file named Ticker.csv You can visit this colab notebook and try out your hands with the code https://t.co/HDB94AATFr

Name	Date modified	Type	Size
ASIANPAINT	22-01-2022 01:23	Microsoft Excel C...	87 KB
AXISBANK	22-01-2022 01:23	Microsoft Excel C...	83 KB
BAJAJ-AUTO	22-01-2022 01:23	Microsoft Excel C...	89 KB
BAJAJFINSV	22-01-2022 01:23	Microsoft Excel C...	89 KB
BAJFINANCE	22-01-2022 01:23	Microsoft Excel C...	89 KB
BHARTIARTL	22-01-2022 01:23	Microsoft Excel C...	82 KB
BPCL	22-01-2022 01:23	Microsoft Excel C...	82 KB
BRITANNIA	22-01-2022 01:23	Microsoft Excel C...	89 KB
CIPLA	22-01-2022 01:23	Microsoft Excel C...	82 KB
COALINDIA	22-01-2022 01:23	Microsoft Excel C...	82 KB
DIVISLAB	22-01-2022 01:23	Microsoft Excel C...	89 KB
DRREDDY	22-01-2022 01:23	Microsoft Excel C...	89 KB
EICHERMOT	22-01-2022 01:23	Microsoft Excel C...	95 KB
GRASIM	22-01-2022 01:23	Microsoft Excel C...	87 KB
HCLTECH	22-01-2022 01:23	Microsoft Excel C...	85 KB
HDFC	22-01-2022 01:24	Microsoft Excel C...	89 KB
HDFCBANK	22-01-2022 01:23	Microsoft Excel C...	88 KB
HDFCLIFE	22-01-2022 01:23	Microsoft Excel C...	42 KB
HEROMOTOCO	22-01-2022 01:23	Microsoft Excel C...	89 KB
HINDALCO	22-01-2022 01:24	Microsoft Excel C...	81 KB
HINDUNILVR	22-01-2022 01:24	Microsoft Excel C...	86 KB
ICICIBANK	22-01-2022 01:24	Microsoft Excel C...	83 KB
INDUSINDBK	22-01-2022 01:24	Microsoft Excel C...	86 KB
INFY	22-01-2022 01:24	Microsoft Excel C...	87 KB
IOC	22-01-2022 01:24	Microsoft Excel C...	81 KB
ITC	22-01-2022 01:24	Microsoft Excel C...	82 KB
JSWSTEEL	22-01-2022 01:24	Microsoft Excel C...	84 KB
KOTAKBANK	22-01-2022 01:24	Microsoft Excel C...	87 KB
LT	22-01-2022 01:24	Microsoft Excel C...	89 KB
M&M	22-01-2022 01:24	Microsoft Excel C...	85 KB
MARUTI	22-01-2022 01:24	Microsoft Excel C...	89 KB
NESTLEIND	22-01-2022 01:24	Microsoft Excel C...	93 KB
NTPC	22-01-2022 01:24	Microsoft Excel C...	82 KB
ONGC	22-01-2022 01:24	Microsoft Excel C...	81 KB
POWERGRID	22-01-2022 01:24	Microsoft Excel C...	82 KB
RELIANCE	22-01-2022 01:24	Microsoft Excel C...	87 KB
SBILIFE	22-01-2022 01:24	Microsoft Excel C...	44 KB
SBIN	22-01-2022 01:24	Microsoft Excel C...	83 KB
SHREECEM	22-01-2022 01:24	Microsoft Excel C...	96 KB

In Module 3, we will learn to use this data to create and test some trading strategies. Until then, take care and have a great time learning.

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