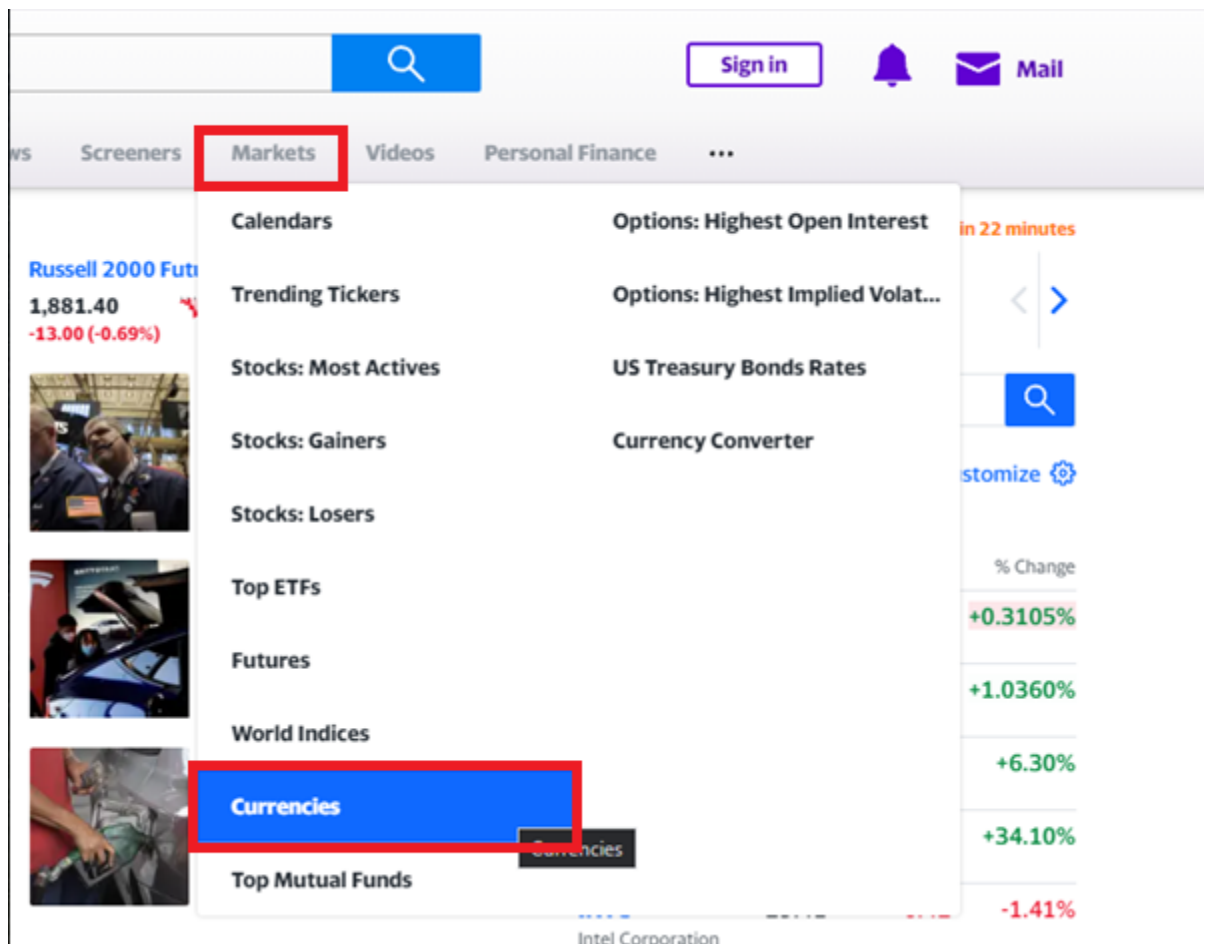


Blue Ocean Strategic Partners Case Study

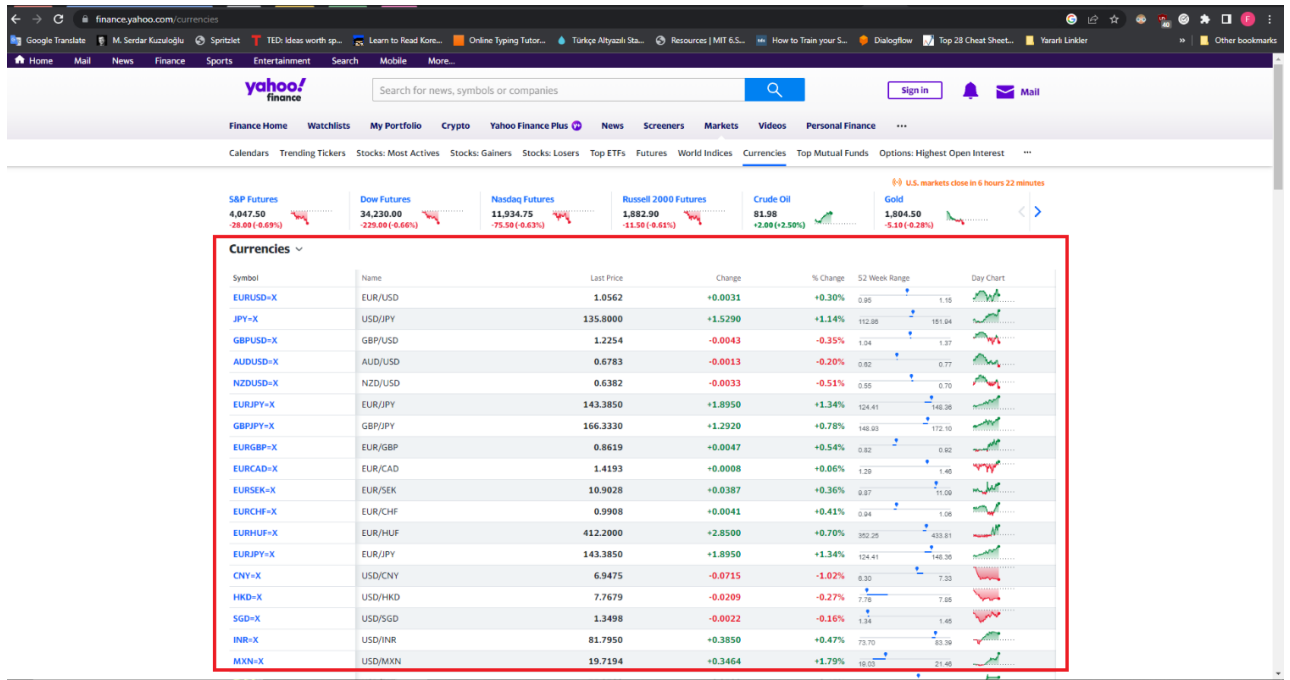
In this case study you're going to be asked to automate fetching financial data from yahoo finance web page. This project requires web and excel automation. Implement your solutions using Python 3.9.5 and provide **requirements.txt** file in the project folder. Try to follow best practices to write clean code. You can use any Python packages you need. Send your submissions and questions to fcetin@blueoceansp.ai within 3 days you received the case study.

Steps:

1. Open <https://finance.yahoo.com/> page
2. Navigate to currencies page.



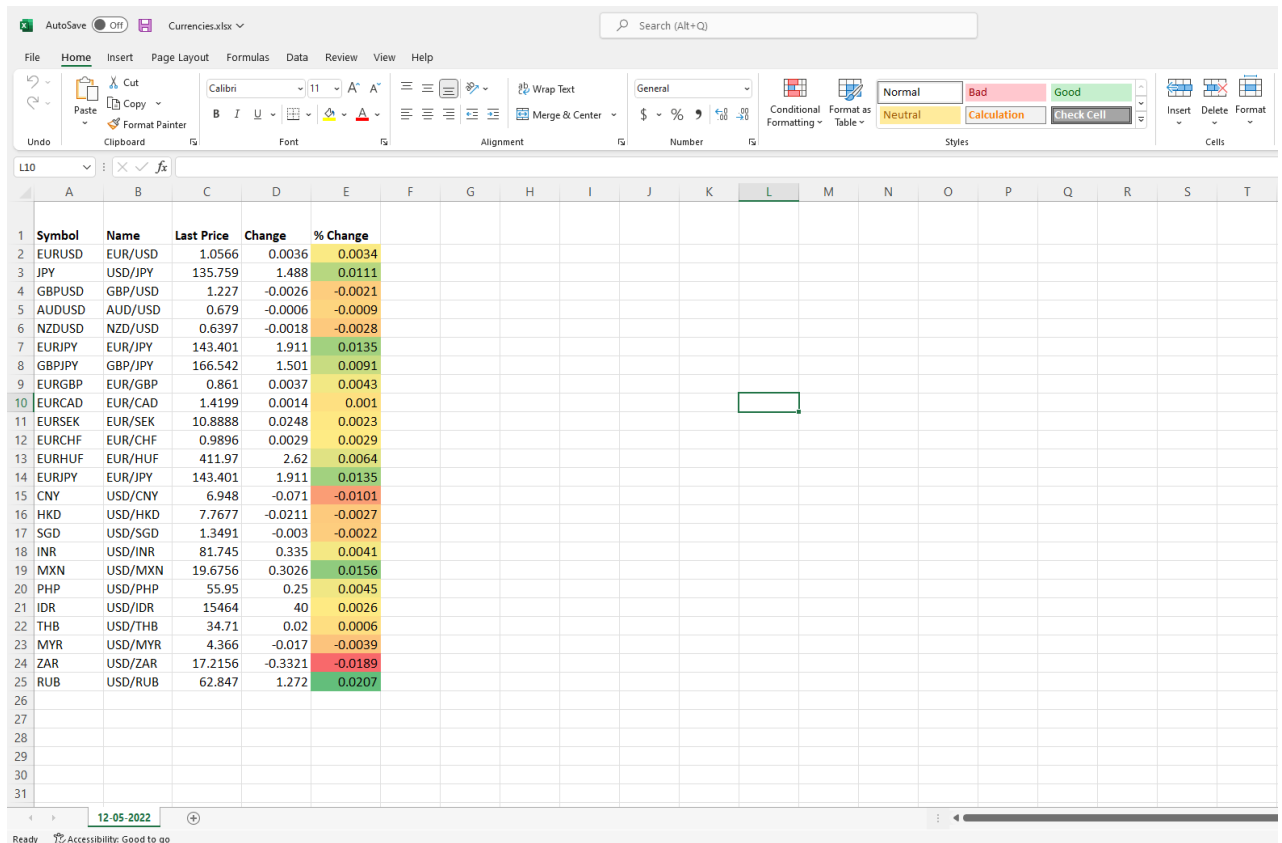
- Extract Currencies table (except **52 Week Range** and **Day Chart** columns) and write into excel file. Cut “=X” string from Symbol column **Filename:** Currencies.xlsx **Sheet Name:** MM-DD-YYYY. Make header cells **bold**. Make all column widths 10.00(75pixels). **Bonus:** You can try to apply Green – Yellow – Red color scale to % Change column (not required, try this if you have additional time left for the project).



The screenshot shows the Yahoo Finance website with the 'Currencies' section selected. A red box highlights the table containing currency data. The table has columns for Symbol, Name, Last Price, Change, % Change, 52 Week Range, and Day Chart. The data is as follows:

Symbol	Name	Last Price	Change	% Change	52 Week Range	Day Chart
EURUSD=X	EUR/USD	1.0562	+0.0031	+0.30%	0.90 - 1.10	
JPY=X	USD/JPY	135.8000	+1.5290	+1.14%	112.88 - 151.84	
GBPUSD=X	GBP/USD	1.2254	-0.0043	-0.35%	1.04 - 1.37	
AUDUSD=X	AUD/USD	0.6783	-0.0013	-0.20%	0.62 - 0.77	
NZDUSD=X	NZD/USD	0.6382	-0.0033	-0.51%	0.55 - 0.70	
EURJPY=X	EUR/JPY	143.3850	+1.8950	+1.34%	124.41 - 145.36	
GBPJPY=X	GBP/JPY	166.3330	+1.2920	+0.78%	148.83 - 172.10	
EURGBP=X	EUR/GBP	0.8619	-0.0047	-0.54%	0.82 - 0.92	
EURCAD=X	EUR/CAD	1.4193	+0.0008	+0.06%	1.29 - 1.45	
EURSEK=X	EUR/SEK	10.9028	+0.0387	+0.36%	9.87 - 11.09	
EURCHF=X	EUR/CHF	0.9908	+0.0041	+0.41%	0.94 - 1.08	
EURHUF=X	EUR/HUF	412.2000	+2.8500	+0.70%	352.25 - 433.81	
EURJPY=X	EUR/JPY	143.3850	+1.8950	+1.34%	124.41 - 145.36	
CNY=X	USD/CNY	6.9475	-0.0715	-1.02%	6.30 - 7.33	
HKD=X	USD/HKD	7.7679	-0.0209	-0.27%	7.35 - 7.85	
SGD=X	USD/SGD	1.3498	-0.0022	-0.16%	1.34 - 1.45	
INR=X	USD/INR	81.7950	+0.3850	+0.47%	73.70 - 83.39	
MXN=X	USD/MXN	19.7194	+0.3464	+1.79%	18.03 - 21.45	

Your final spreadsheet should look like this: (Bonus is not required)



The screenshot shows an Excel spreadsheet with the extracted currency data. The data is as follows:

	Symbol	Name	Last Price	Change	% Change
1	EURUSD	EUR/USD	1.0566	0.0036	0.0034
2	JPY	USD/JPY	135.759	1.488	0.0111
3	GBPUSD	GBP/USD	1.227	-0.0026	-0.0021
4	AUDUSD	AUD/USD	0.679	-0.0006	-0.0009
5	NZDUSD	NZD/USD	0.6397	-0.0018	-0.0028
6	EURJPY	EUR/JPY	143.401	1.911	0.0135
7	GBPJPY	GBP/JPY	166.542	1.501	0.0091
8	EURGBP	EUR/GBP	0.861	0.0037	0.0043
9	EURCAD	EUR/CAD	1.4199	0.0014	0.001
10	EURSEK	EUR/SEK	10.8888	0.0248	0.0023
11	EURCHF	EUR/CHF	0.9896	0.0029	0.0029
12	EURHUF	EUR/HUF	411.97	2.62	0.0064
13	EURJPY	EUR/JPY	143.401	1.911	0.0135
14	CNY	USD/CNY	6.948	-0.071	-0.0101
15	HKD	USD/HKD	7.7677	-0.0211	-0.0027
16	SGD	USD/SGD	1.3491	-0.003	-0.0022
17	INR	USD/INR	81.745	0.335	0.0041
18	MXN	USD/MXN	19.6756	0.3026	0.0156
19	PHP	USD/PHP	55.95	0.25	0.0045
20	IDR	USD/IDR	15464	40	0.0026
21	THB	USD/THB	34.71	0.02	0.0006
22	MYR	USD/MYR	4.366	-0.017	-0.0039
23	ZAR	USD/ZAR	17.2156	-0.3321	-0.0189
24	RUB	USD/RUB	62.847	1.272	0.0207

4. Click on **% Change** column and sort in descending order.

Currencies ▾

Symbol	Name	Last Price	Change	% Change ▾	52 Week Range	Day Chart
RUB=X	USD/RUB	62.8470	+1.2720	+2.07%	50.59 - 154.72	
MXN=X	USD/MXN	19.7194	+0.3464	+1.79%	19.03 - 21.46	
EURJPY=X	EUR/JPY	143.3850	+1.8950	+1.34%	124.41 - 148.36	
EURJPY=X	EUR/JPY	143.3850	+1.8950	+1.34%	124.41 - 148.36	
JPY=X	USD/JPY	135.8000	+1.5290	+1.14%	112.86 - 151.94	
GBPJPY=X	GBP/JPY	166.3330	+1.2920	+0.78%	148.93 - 172.10	
EURHUF=X	EUR/HUF	412.2000	+2.8500	+0.70%	352.25 - 433.81	
EURGBP=X	EUR/GBP	0.8619	+0.0047	+0.54%	0.82 - 0.92	

5. For top 5 currencies:

a. Click on symbol and navigate to currency page.

Currencies ▾

Symbol	Name	Last Price	Change
RUB=X	USD/RUB	62.8470	+1.2720
MXN=X	USD/MXN	19.7194	+0.3464
EURJPY=X	EUR/JPY	143.3850	+1.8950
EURJPY=X	EUR/JPY	143.3850	+1.8950
JPY=X	USD/JPY	135.8000	+1.5290
GBPJPY=X	GBP/JPY	166.3330	+1.2920
EURHUF=X	EUR/HUF	412.2000	+2.8500
EURGBP=X	EUR/GBP	0.8619	+0.0047
INR=X	USD/INR	81.7950	+0.3850
PHP=X	USD/PHP	55.9500	+0.2500

b. Click **Historical Data**

USD/RUB (RUB=X)

CCY - CCY Delayed Price. Currency in RUB

☆ Follow

62.8470 +1.2720 (+2.0658%)

As of 03:36PM GMT. Market open.

Summary

Chart

Conversations

Historical Data

Previous Close	61.5750	Day's Range	61.2500 - 62.8970	1D
Open	61.5750	52 Week Range	50.5899 - 154.7150	
Bid	62.8470	Ask	62.8520	

- c. Change time periods; End Date should be current day. Start Date should be first day of current month. You can see an example of running script at 5 Dec 2022.

Summary Chart Conversations **Historical Data**

Time Period: Dec 05, 2021 - Dec 05, 2022 Show: Historical Prices

Currency in RUB

Date

Dec 05, 2022

Dec 02, 2022

Dec 01, 2022

Nov 30, 2022

Nov 29, 2022

1D 5D 3M 6M

YTD 1Y 5Y Max

Start Date

01/05/2021

End Date

12/05/2022

Done Cancel

High

62.8970 61.2

62.7150 61.1

61.6900 60.5

61.2150 60.4

61.5150 60.7

- d. Click Done then Download the file.

Summary Chart Conversations **Historical Data**

Time Period: Dec 05, 2021 - Dec 05, 2022 Show: Historical Prices Frequency: Daily Apply

Currency in RUB

Date

Dec 05, 2022

Dec 02, 2022

Dec 01, 2022

Nov 30, 2022

Nov 29, 2022

1D 5D 3M 6M

YTD 1Y 5Y Max

Start Date

01/05/2021

End Date

12/05/2022

Done Cancel

High Low Close* Adj Close** Volume

62.8970 61.2500 62.8470 62.8470 -

62.7150 61.1800 61.1800 61.1800 -

61.6900 60.5150 60.9900 60.9900 -

61.2150 60.4435 60.8100 60.8100 -

61.5150 60.7800 61.8150 61.8150 -

Download

- e. Save all files into \Project\Currencies folder. Your code should be in \Project folder.

