

# Acquiring Data for Brazilian Stock

## About:

Development of a script (algorithm) aimed at automating the process of obtaining information on the main Brazilian stocks.

## Proposal:

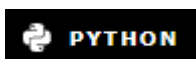
To develop a script for automating the data collection of key Brazilian stocks: **ITUB4, BBDC4, VALE3, PETR4, ABEV3, and BBAS3.**

Using the **Pandas** and **YFinance** libraries, the script fetches up-to-date information directly from the reference website, Yahoo Finance Brazil, and organizes the results into an **xlsx** file.

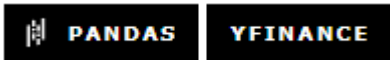
## Repository Structure:

- **data:** Here you will find the **.csv** file containing the data used for the analysis.
- **img:** This is where the screenshots obtained during the analysis can be found.
- **notebook:** This directory contains the Jupyter notebook where the analysis was conducted and the results obtained.
- **readme\_translated:** This repository contains the **PDF** with the report translated into English.

## Language Used:



## Libraries Used:



## Methodology:

The script was designed to accept a list with the names of the stocks for which information would be retrieved. For each item in the list, it queries the **yfinance** library to obtain the most recent data, such as opening price, closing price, among others.

After collecting the data, the script uses the **Pandas** library to create a **DataFrame** containing the obtained information.

		Open	High	Low	Close	Volume	Dividends	Stock Splits
Ação	Data							
ITUB4.SA	2023-08-11 00:00:00-03:00	27.629999	27.799999	27.459999	27.469999	14012000	0.0	0.0
BBDC4.SA	2023-08-11 00:00:00-03:00	15.500000	15.570000	15.300000	15.320000	20845600	0.0	0.0
VALE3.SA	2023-08-11 00:00:00-03:00	66.190002	66.379997	65.269997	65.300003	21219000	0.0	0.0
PETR4.SA	2023-08-11 00:00:00-03:00	30.610001	31.040001	30.180000	30.180000	27187000	0.0	0.0
ABEV3.SA	2023-08-11 00:00:00-03:00	14.440000	14.470000	14.280000	14.400000	9332600	0.0	0.0
BBAS3.SA	2023-08-11 00:00:00-03:00	47.180000	47.660000	47.040001	47.290001	5903400	0.0	0.0

It then proceeds to clean and process the data.

		Open	High	Low	Close
Data	Ação				
2023-08-11 00:00:00-03:00	ABEV3.SA	14.440000	14.470000	14.280000	14.400000
	BBAS3.SA	47.180000	47.660000	47.040001	47.290001
	BBDC4.SA	15.500000	15.570000	15.300000	15.320000
	ITUB4.SA	27.629999	27.799999	27.459999	27.469999
	PETR4.SA	30.610001	31.040001	30.180000	30.180000
	VALE3.SA	66.190002	66.379997	65.269997	65.300003

Upon successful execution of the script, the stock data is collected and organized into an **xlsx** file.

**Note:** The values in the images are from the day of this repository's publication.

## **Conclusion:**

Automating the collection of stock data using the **YFinance** library offers an efficient and accurate way to obtain up-to-date financial information. Exporting the results to an **xlsx** file enhances the script's utility, allowing for further analysis of the data in a convenient format.