- Question/Problem statement:

  Predicting the close price of Starbucks, with the historical data from one year 23/11/2020 until 23/11/2021, using time series regression.

- Data Description:

  Data was collected from MarketWatch.com by scraping the data using BeautifulSoup.

  o Columns:

Name	Date	Close
description	Date of the stock value	Closing price of a stock in a particular date

  o Data size (252 rows * 2 columns).

- Tools:
  o Programs: Jupyter
  o Libraries: BeautifulSoup, requests, pandas, StringIO, csv, ARIMA, NumPy, adfuller, pyplot, plot_acf, plot_pacf, ndiffs.
  o Plots: plot_predict, plot_acf, plot_pacf, hist, plot.
  o Functions:
    1. First preprocessing on the data.
    2. Check if the data is stationary or not by the dicky fuller test.
    3. Find the p of the autoregression using the acf, find the d of the integration using ndiffs, and the q of moving average using the pacf.
    4. Divide the data into train and test.
    5. Apply the ARIMA model.
    6. Predict the price of the closing of Starbucks.

- MVP Goal:

  The goal of this project is Predicting the close price of Starbucks in one year from 23/11/2020 until 23/11/2021, using time series regression.