Purpose:

Provide an automated modular function for downloading stock market prices in specific time period, visualizing data in price, return, histogram and different moving average in different lags. And training a model for future stock prediction.
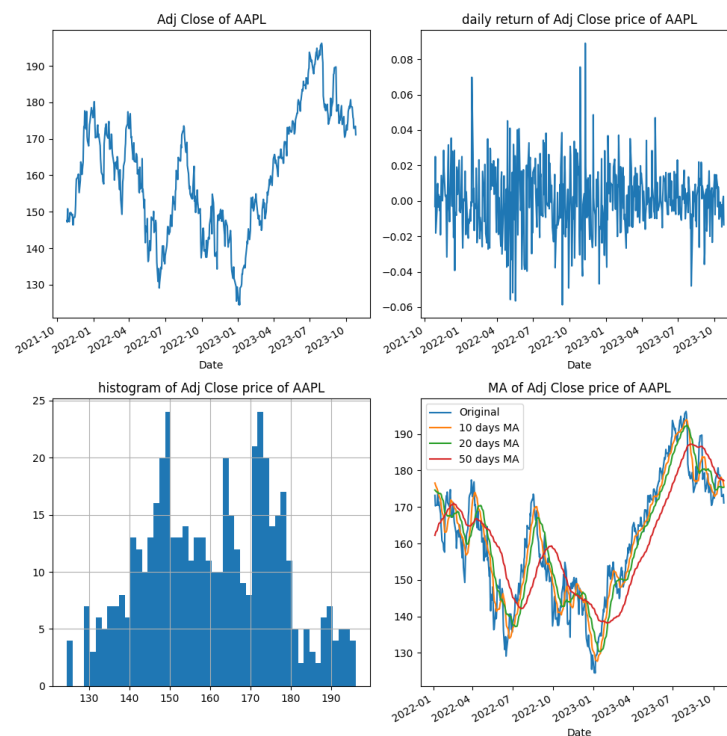
Challenges:

Training a model wit low Means squared error
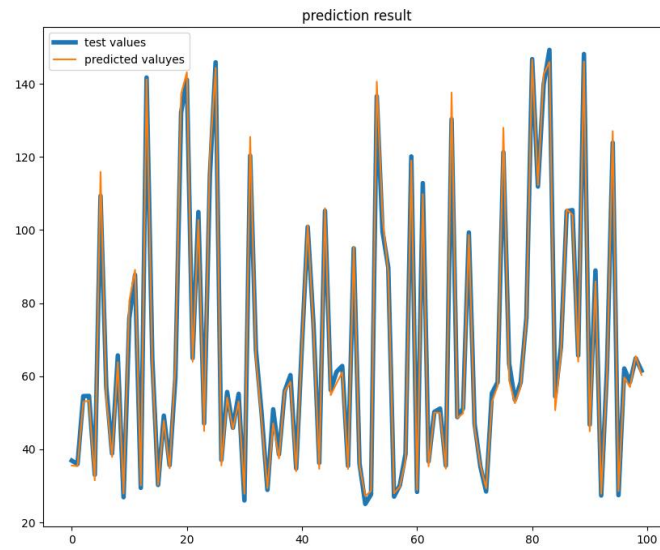
Approaches:

With help of Long Short-Term memory model, we design a model for future price prediction based on 60 pervious prices of the stock as a sequential feature. The lag time can be modulated for any desired time steps.

Result:

Data visualization

Model prediction

prediction result

Requirements:

Python packages:

- Pandas
- Numpy
- Yfinance
- Matplotlib
- Scikitlearn
- tensorflow