Stock Prediction Web App - Python Streamlit

Computer Engineering
Engineering Project III
Leyla Abdullayeva - 1904010038

What is Stocks?

A stock is a form of security that indicates the holder has proportionate ownership in the issuing corporation.

What is Stock Prediction?

A stock market prediction is an attempt to forecast the future value of an individual stock, a particular sector or the market, or the market as a whole. The goal of the project is to help companies and investors to make an investment decision and get profit from it with lower risk.

What is Machine Learning ?

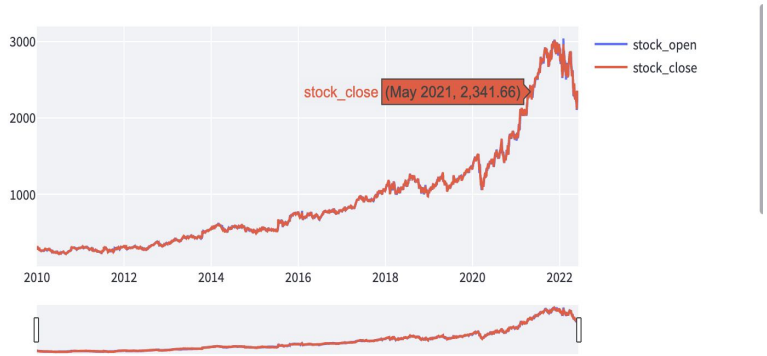
Machine learning (ML) is a type of artificial intelligence (AI) that allows software applications to become more accurate at predicting outcomes without being explicitly programmed to do so. Machine learning algorithms use historical data as input to predict new output values.

Why it is important?

Machine learning is important because it gives enterprises a view of trends in customer behavior and business operational patterns, as well as supports the development of new products. Many of today's leading companies, such as Facebook, Google and Uber, make machine learning a central part of their operations. Machine learning has become a significant competitive differentiator for many companies.

Web Application

In this project I've build a stock prediction web app in Python using streamlit, Yahoo finance, and Facebook Prophet.



What is Streamlit?

Streamlit is an open source app framework in Python language. It helps us create web apps for data science and machine learning in a short time. It is compatible with major Python libraries such as scikit-learn, Keras, PyTorch, SymPy(latex), NumPy, pandas, Matplotlib etc.

Requirements:

Hardware :

● Windows / Linux / MAC laptops for development

Software :

● Python 3.7 or the latest version with machine learning libraries (e.g. scikit-learn, Keras, Tensorflow)

● Pycharm IDE / Sublime Text for programming

● Google Chrome for debugging web applications Platforms

Resources:

https://www.streamlit.io/

https://facebook.github.io/prophet/

Installation :

We need to install streamlit, Facebook prophet, yfinance, and plotly. Run this in your terminal:

```
$ pip install streamlit fbprophet yfinance plotly
```