INVESTMENT HELPER CHATBOT

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Overview

Investment helper chatbots are precursors of virtual assistants that would in future make transactions for customers without strenuous analysis of stocks or being constantly at tips with market dynamics. These bots also aim to remove brokers who charge commissions for recommendations and placing order of buying, selling and holding stocks.

The objective of this project to implement chatbot that would be your personal investment guide. It is based on Stocks listed in NSE in India and investment profile of an investor. The goal is to ease the investment system than that in place.

Goals

This bot upon requests displays trend-lines, returns specific values of various securities over specified periods of time and recommends best stocks to invest based on performance at that time.

Use Cases

1) Investment profile login using credentials
2) Display current ownerships and status of securities
3) Get top three performing stocks
4) Plot trend line of past one month opening prices of stock
5) Buy/ Sell 100 stocks of Reliance Industries

6) Who are the top 10 gainers/ losers in NSE

Data

Stock behavior from:

https://www.moneycontrol.com/

Investor profile using:

https://moneybhai.moneycontrol.com/myspace

Process Outline

1) Build the chatbot, use Sagemaker, beautiful soup and selenium to extract and access data
2) Build time series model to predict stock prices of future and make recommendations for investment decisions.
3) Use the investors profile on virtual trading account and plot investing patterns, current stocks under ownership and performance metrics.
4) Use investors profile to sell or buy specific securities and update profile.

Deployment Information

1) Language: Python
2) Container: Docker

3) Cloud Tools/Platforms: Microsoft Azure, AWS Sagemaker, AWS Cognito, AWS Forecast, AWS Lex
4) Data Extraction Tools: Selenium, Beautiful Soup
5) Other Considerations: AWS Polly, AWS Beanstalk

Timeline:

Dates	Tasks
12th- 13th April	Setup Chatbot login, dataframes using webscraping
14th-15th April	Perform TimeSeries Analysis and recommendations should be generated
16th-17th April	Work on graphs , Perform Sell/Buy and Error debugging
18th-19th April	Package into flask application after dockerization

References:

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