



DISCORD+BOTS

18CSP107L - MINOR PROJECT

Discord Stock Bot

Table of Contents



- 1 | **INTRODUCTION**
- 2 | **OBJECTIVES**
- 3 | **LITERATURE SURVEY**
- 4 | **ACRHITECTURE DIAGRAM**
- 5 | **ALGORITHM USED**
- 6 | **REFERENCES**

Introduction



The Discord Stock Bot addresses the need for convenient and user-friendly access to real-time stock data, historical trends, and stock-related news within the Discord platform, catering to individual and institutional investors.

By aggregating and presenting financial information, the bot empowers users to make informed investment decisions while fostering a dynamic and interactive space for discussing stock market developments.

Objective



REAL-TIME STOCK DATA

Provide users with up-to-date stock information, including current stock prices, market trends, and more.



HISTORICAL STOCK DATA

Enable users to access historical stock price charts, allowing them to analyze past performance and trends.



DAILY STOCK NEWS UPDATES

Deliver the latest stock market news to users at a scheduled time each day.



USER-INITIATED COMMANDS

Allow users to trigger specific commands to request stock-related information, ensuring a user-friendly interaction.

THIS PROJECT AIMS TO BRIDGE THE GAP BETWEEN THE EVOLVING STOCK MARKET AND DISCORD'S VIBRANT COMMUNITY, ENHANCING THE ACCESSIBILITY AND USER EXPERIENCE OF STOCK MARKET INFORMATION.

Literature Survey

The development of the Discord Stock Bot draws from various technology domains, including finance data retrieval, data visualization, web scraping, and bot development. A literature survey reveals the following key areas of relevance

DEVELOPMENT OF DISCORD STOCK BOT

Bot development is based on Discord.py v2.0 framework, which facilitates the creation of bots and the handling user interactions.

API INTEGRATION

Discord stock bots require integration with financial market APIs, such as Yahoo Finance or Alpha Vantage, to access stock data in real time.

USER INTERACTION AND COMMANDS

The Bot is based on discord.py v2.0 which supports slash commands and improves user interactions

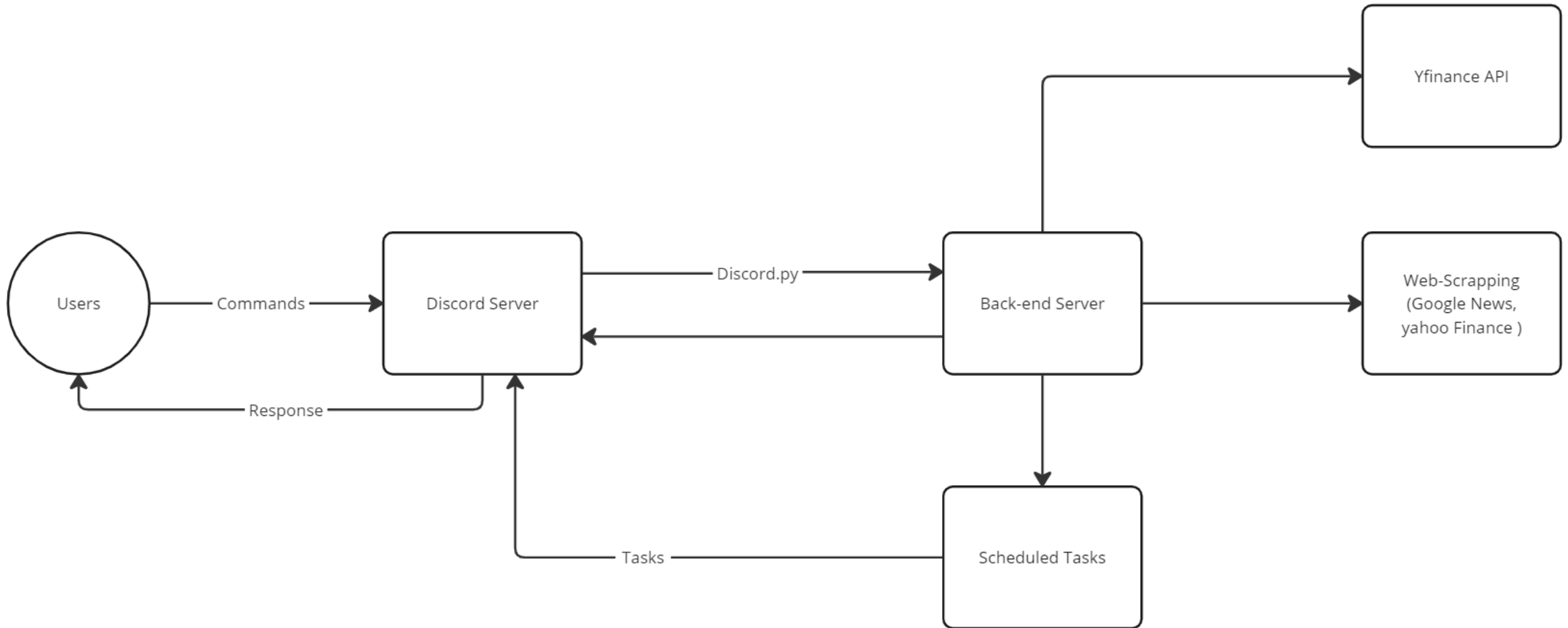
SCHEDULED NEWS UPDATES

One notable feature of Discord stock bots is the ability to deliver scheduled news updates. Users can receive daily business news at specified times.

WEB SCRAPING FOR NEWS

Discord stock bot employs web scraping to extract financial news from websites like Google News and Yahoo Finance. Web scraping involves algorithms that parse and filter relevant news articles.

Architecture Diagram



Algorithm Used

The Discord stock bot is built on a series of algorithms that allow the bot to interact with users, fetch stock market data, and provide various functionalities.

STOCK DATA RETRIEVAL

To provide market data, the bot uses an algorithm to make HTTP requests to APIs, parse the data, and extract the required information.

DATA VISUALIZATION

Data visualization algorithms take historical stock data and convert it into graphical representations to display Stock performances.

SCHEDULED TASK

Discord stock bot uses a scheduled task algorithm to send daily news updates at a specified time.

ERROR HANDLING

Effective error handling algorithms are essential to provide users with informative feedback when something goes wrong. These algorithms detect errors, generate error messages, and communicate them to users.

WEB SCRAPING FOR NEWS

Discord stock bot uses web scraping algo's to extract financial news from websites like Google News and Yahoo Finance. Web scraping involves algorithms that parse and filter relevant news articles.

References



1 | **DISCORD.PY DOCUMENTATION**

- [HTTPS://DISCORDPY.READTHEDOCS.IO/](https://discordpy.readthedocs.io/)

2 | **WEB SCRAPING WITH REQUESTS AND BEAUTIFULSOUP**

- [HTTPS://REALPYTHON.COM/BEAUTIFUL-SOUP-WEB-SCRAPER-PYTHON/](https://realpython.com/beautiful-soup-web-scraper-python/)

3 | **YFINANCE DOCUMENTATION**

- [HTTPS://PYPI.ORG/PROJECT/YFINANCE/](https://pypi.org/project/yfinance/)

4 | **GOOGLE FINANCE (NEWS SOURCE)**

- [HTTPS://WWW.GOOGLE.COM/FINANCE](https://www.google.com/finance)

5 | **MISCELLANEOUS**

- [HTTPS://MEDIUM.COM/](https://medium.com/)

- [HTTPS://STACKOVERFLOW.COM/](https://stackoverflow.com/)

**THANK
YOU**

