A Centralized Platform:
For Expert-Generated Trading Signals in Real-Time

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Abstract:- Binary options trading is a type of financial trading where the trader speculates on the direction of the price of an underlying asset within on specified period. Unlike traditional financial trading, binary options trading provides a fixed payout if the trader's prediction is correct, regardless of how much the price moves in the predicted direction. This makes binary options trading a popular choice among traders who want to know their potential payout in advance and limit their risk. However, binary options trading is complex and unpredictable, making it challenging for individual traders to make yield investment decisions. In particular, the lack of reliable and accurate trading signals, the need for more user-friendly trading platforms, and the lack of access to expert-generated signals for individual traders are common problems faced by traders in the binary options market. This paper presents a centralized platform named Forex Flux that delivers expert-generated trading signals to subscribers in real time. The signals are generated using a combination of technical analysis algorithms, price action and market data, which is delivered through a user-friendly interface by this platform. The platform also offers subscribers to manage their subscriptions and access market news and analysis, with an option of premium service. To develop ForexFlux, languages like HTML, CSS, and JavaScript are used, and also integrated some third-party APIs to provide real-time market data. The approach leverages the latest technologies and expertise, including technical analysis tools such as moving averages, relative strength index (RSI), stochastic oscillator, and most importantly price action to provide a solution that solves the problems faced by traders in binary options trading. The ForexFlux has the potential to greatly benefit traders and improve their investment outcomes, as well as provide a valuable service to the broader binary options trading community. The system aims to bridge the gap in the binary options trading landscape and provide a valuable solution for traders of all levels.

Keywords: Forex-Flux, Trading Signals, Price Action, Real-Time Market Data, Binary Options Signals.

I. INTRODUCTION

Forex Flux is a platform which is based on a binary market, where the traders/investors will get informed decisions. It provides signals to traders who subscribe to the services. The website is made with HTML, CSS, and JavaScript to create a user-friendly interface that allows clients to receive notifications/signal on when to buy or sell options. Binary options trading is a type of financial trading where the payoff is either a fixed amount of money or nothing at all. Due to the nature of binary options, traders need to make quick and accurate decisions to maximize their profits. Therefore, effective trading signals are essential to help traders make informed decisions and improve their chances of success in binary options trading. Without such signals, traders may rely on guesswork or intuition, which can lead to significant losses. The website creates buy and sell signals based on the moving averages of periods 14 and 50 and applies momentum-based criteria to provide traders advice on when to purchase and sell. The service also offers expert signals, which are created by seasoned traders and distributed to clients via Telegram and a database. ForexFlux's mission is to aid traders in making wise selections by offering them precise and dependable signals that can be utilised to trade binary options. ForexFlux strives to assist traders in achieving more success in their trading endeavours by offering signals produced by seasoned traders and utilising cutting-edge technical analysis methods. Trading binary options signals from ForexFlux based on sophisticated technical analysis methods can help traders decide whether to buy or sell assets in an informed manner.

➤ *How Does it Work?*

ForexFlux generates trading binary options signals by utilising advanced technical analysis techniques. The website pulls information from the Binance API, creates moving average-based signals using the TradingView and Tulind libraries, and provides expert signals via the database and Telegram methods. The clients will then take the signal based on what the experts/indicators are and make money.

➤ *Technical Details of Forex-Flux*

HTML, CSS, and JavaScript are just development languages used to create it. The common markup language used to construct web pages is called HTML, or HyperText Markup Language. It is used to organise and arrange the text, graphics, and other media that makeup web pages. Cascading Style Sheets, or CSS, is a stylesheet language

used to describe how HTML texts are presented. It is used to manage the typography, layout, and other facets of a web page's visual appearance. The programming language JavaScript is used to give websites interactive features and capabilities. It is utilized to develop responsive and dynamic user interfaces, manage user input, carry out intricate computations, and manipulate data. In the context of ForexFlux, JavaScript is utilized to implement the sophisticated technical analysis methods used to produce alerts for traders, while CSS is used to govern the visual style and layout of the website. Also, PHP is used to implement the server-side script.

- *Fetching the API from the Binance*

Developers can access the trading data of the cryptocurrency exchange Binance through an API (Application Programming Interface). This API is used by ForexFlux to retrieve the most recent trading data from Binance. ForexFlux employs JavaScript code to send a request to a certain endpoint of the Binance API to retrieve the data. The JSON (JavaScript Object Notation) object that this endpoint returns includes the open, high, low, and closing prices of the traded item along with other trading-related information. After the data is fetched, ForexFlux analyses the data using the TradingView and Tulind libraries to produce trading signals based on the 14- and 50-period moving averages. Then, together with other pertinent information, these signals are given to traders in a user-friendly way. So now it depends, if the strategy of period 14 and 50 moving averages aren't working then we can change the moving average period and adapt accordingly.

Fig 1 Fetched Data from Binance API

II. METHODOLOGY

The moving average of periods 14 and 50 is used by the ForexFlux website to provide trading signals. Technical analysis tools like moving averages are frequently used to smooth out market fluctuations and spot trends. When it comes to ForexFlux, trend changes in the market are detected using the moving average of periods 14 and 50. A bullish signal, or upward trend shift, is produced when the moving average of period 14 crosses above the moving average of period 50. On the other hand, it is seen as a bearish indicator, signifying a downward trend, when the moving average of period 14 crosses below the moving average of period 50. However, depending solely on the crossover of moving averages to produce trade signals can be incorrect. ForexFlux filters away erroneous signals using a momentum-based method to increase the signal's accuracy. The TULIP Indicators library, which determines the momentum of price movements over a given period, is the momentum indicator used in ForexFlux. It creates more precise trading signals by combining the momentum indicator and moving average crossovers. A signal to buy or sell is produced when the moving averages cross and the momentum indicator verifies the trend change.

Overall, ForexFlux's usage of the moving average crossover and the momentum indicator technique gives traders a dependable and accurate way to provide trading signals.

➢ *Data Collection Process*

To gather the most recent trading data for ForexFlux, the Binance API is accessed, and the data is then processed to produce trading signals for investors.

ForexFlux employs JavaScript code to send a request to the Binance API endpoint to access the Binance API. The open, high, low, and close prices of each trading session (often referred to as "candles") are returned by this service in a JSON object that comprises trading information for the asset being traded.

The candle data is then processed by ForexFlux using the TradingView module to produce trading signals based on the 14- and 50-period moving averages. The Tulind library, a technical analysis package for JavaScript, is used to calculate the moving averages.

Here is the in detail process of Data Collection. First thing first, you need to make a proxy server to handle the API calls and calculate the value of the indicator. Initiate the proxy server and initiate the dependencies needed for it. Those are: got module, cors, express, and telling.

- Create the Express server and make the route.
- Create a route that returns the candlesticks data.
- Import the got module and fetch the data from the source.
- Structure the data in the correct format, that is time, high, open, close. You'll get the string value referring to the above parameters.

- Import the trading library and define the script in an HTML file. Plotting the chart. (we just want the signal section)

Define the get data function to get the data from the proxy server.

Now you have the data, now what you need is the indicators and the crossover between them, Simple Moving Average: Create an Indicator.js file for the coding part of the simple moving average and their crossover of periods 14 and 50.

Fig 2 Crossovers of Moving Averages

> *Expert-Based Signal Generation Process*

Expert signals are crucial in ForexFlux's binary options signal service. An expert generates expert signals by entering signal information into a database or sending it via a chat application such as Telegram. A website script monitors the database for new signal information or receives it from the Telegram bot and generates a notification for the client based on the information.

The notification script is in handling processing the signal information and generating the relevant notification for the client. This methodology enables ForexFlux to provide its clients with trustworthy and timely expert signals, increasing the overall effectiveness of its signal service.

> *Expert: Signals Overview*

Both expert trading and bot trading have advantages and disadvantages, and which is superior depends on the situation and context. However, here are some general distinctions between the two that may aid in comparison:

- *Trading by Experts:*

Human specialists can consider a broader range of aspects, such as news events, political developments, and market emotion, that a bot may not be able to simply programme. A person may change their strategy on the fly in response to changing market conditions or unforeseen events, whereas bots are programmed to follow a set of rules and may be slow to adapt to changing situations. specialists can make subjective decisions based on their expertise and intuition, which a bot may find challenging to mimic. Experts trading, on the other hand, is prone to emotional

biases such as fear, greed, and overconfidence, which can lead to poor decision-making.

- *Trading with Bots:*

Bots can swiftly and precisely analyse large volumes of data, resulting in more efficient and consistent decision-making. Bots can run continuously without stopping or resting, providing additional opportunities to profit from market moves. Bots can be trained to obey a set of rules and minimise emotional biases that human traders may experience. However, bots may be susceptible to errors caused by bugs or glitches in the programming, and may not always be able to react to unexpected events or black swan events. Overall, expert trading and bot trading both have their strengths and weaknesses. It's important to consider the specific context and goals of the trading strategy when deciding which approach to use.

The system will initialize the bot system where the system will automatically place trades with the help of the expert trader and the indicators in the coming future.

> *Signal Delivery System via Database and Telegram API*

One of the most important elements of ForexFlux's trading approach is its signal delivery mechanism. ForexFlux has built a hybrid system that combines human expert analysis with automation via database and Telegram API to deliver accurate and fast signals to its clients. Clients receive signals instantly and without delay thanks to this mechanism.

The system's initial part incorporates technical analysis of price data and signal generation based on an expert understanding of market conditions. The preceding section went into great length about this procedure. Once the signals are generated, they must be sent to the customers promptly. The signal data is stored by ForexFlux in a database, ensuring that customers may easily access it. However, in other circumstances, the human expert may deliver the signals via a distinct platform, such as Telegram. This may result in a delay in signal delivery to ForexFlux's platform, which can be crucial in the context of binary options trading. To overcome this issue, ForexFlux has created a Telegram bot that monitors the expert's Telegram group and provides data straight to the ForexFlux platform. The technical implementation of this approach is creating a bot that can listen to messages in the expert's group using the Telegram API. The bot is programmed to recognise expert-generated signals and retrieve key data such as asset, direction, and expiration time. The data is afterwards securely transmitted to the ForexFlux platform via an API.
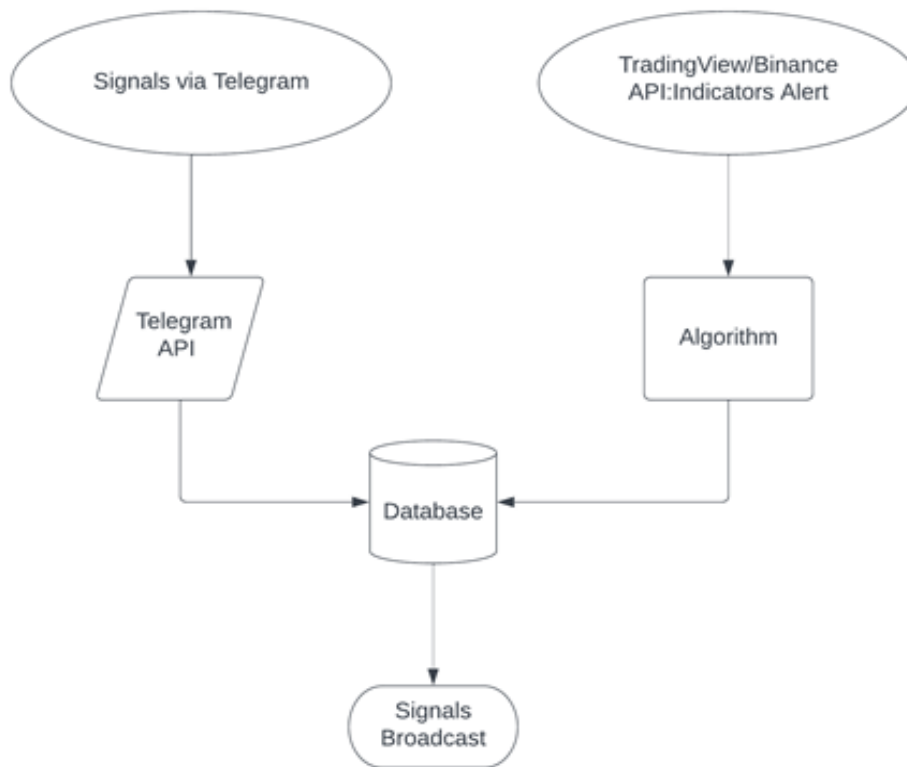

Fig 3 Signal Generation Mechanism

The ForexFlux's signal distribution mechanism via database and Telegram API combines human experience with automation to provide its clients with fast and dependable signals. ForexFlux can ensure that clients receive signals without delay and may act on them quickly to capitalise on market chances by utilising the Telegram bot.

➢ *Money Management*

Setting attainable goals for your trading and having a clear awareness of your risk tolerance are both crucial first steps. Traders should never be tempted to overleverage their accounts and should only trade with money they can afford to lose. Additionally, traders must set reasonable profit goals and be ready to absorb losses when required. Utilising a fixed percentage risk model is one essential tactic for efficient money management. Instead of risking a predetermined cash amount, you would instead risk a fixed percentage of your trading account on each deal. This strategy can assist in keeping you in the game over the long run and protecting your account from significant losses. The use of stop-loss orders is a key component of good money management. An order to sell an asset when it reaches a specific price is known as a stop-loss order, and it is placed with your broker. Trading money can be safeguarded and potential losses can be limited by employing stop-loss orders.

Finally, it's critical to keep an eye on your trading results and modify your money management plans as needed. To improve their trading performance, traders should monitor their trades, including their gains and losses, and change their risk and money management tactics as necessary.

III. CONCLUSION

The paper described ForexFlux, a web-based technology that provides binary options traders with timely and trustworthy trading recommendations, in this article. We have discussed the signal-generating process, which involves using technical price data analysis and the skill of human analysts to develop successful signals. In the paper, it is also discussed about the signal delivery system, which blends automation via a database and Telegram API with human experience to assure fast and reliable signal delivery to clients.

Overall, ForexFlux is an effective tool for binary options traders looking to improve their trading results. ForexFlux will be able to produce and provide successful signals to clients in a timely way by utilising the experience of human analysts and the power of technology. Traders can utilise these signals to make more educated judgements about whether to purchase or sell, thereby increasing their profits with proper money management.

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