

Binance Market Data WebSocket Implementation

Requirements:

1. **Connect to Binance WebSocket for Market Data:**
 - Use the following WebSocket URL for Binance:
`wss://stream.binance.com:9443/ws/<symbol>@kline_<interval>.`
2. **Cryptocurrency Toggle:**
 - Create a toggle or selection dropdown for the following coins:
 - ETH/USDT
 - BNB/USDT
 - DOT/USDT
 - When a user selects a coin, the chart for that specific coin should be displayed.
 - Upon switching back to a previously selected coin, the historical chart data should remain intact.
 - Use local storage or in-memory data structures to store the previous chart data for each coin, so the data is maintained even after switching between coins.
3. **Chart Visualization:**
 - Display a live candlestick chart for the selected cryptocurrency.
 - Maintain previous chart data for each coin when toggling between ETH/USDT, BNB/USDT, and DOT/USDT.
 - Use a charting library like **Chart.js** or **TradingView Charts** to plot the candlestick data.
4. **Candlestick Timeframes:**
 - Allow users to choose between 1-minute, 3-minute, and 5-minute intervals for the candlestick chart.
5. **Data Persistence:**
 - Use local storage or an in-memory solution to persist the candlestick data for each coin. When the user switches back to a previously selected coin, the chart should be restored with the previously received data.
 - Ensure that the chart updates in real-time while new WebSocket messages are received.
6. **User Interface:**
 - Design a clean and responsive user interface for toggling between **ETH/USDT**, **BNB/USDT**, and **DOT/USDT**.
 - Display the real-time data updates in the chart along with a toggle option for selecting the time interval (1 min, 3 min, 5 min).

Additional Notes:

- Make the code modular and flexible to accommodate future changes, such as adding more cryptocurrencies or updating the chart design.
- Ensure the chart updates smoothly without flickering when new data is received.