APP ideas

A texting friend via twilio that can suggest things to do, update you on your health and calendar stuff to do or anything like that would be cool.

The two methodologies you've mentioned for trend line automation are common:

High/Low Method: This involves connecting the high points and low points of the price bars to identify the upper and lower bounds of a price channel.

Close Price Method: This uses the closing prices to draw the trend lines, which can be especially useful for capturing the sentiment at the end of each trading period.

To implement this, we would take the following steps:

**Data Preparation:**

Normalize the data if necessary to ensure consistent scale and spacing.

Line Fitting: Use a mathematical method to fit lines through the points. There are various methods for this, like the least squares method, which can minimize the sum of the squares of the residuals (the differences between the observed and calculated values).

Line Optimization: Iteratively adjust the lines by possibly changing the start and end points until the best fit is found based on predefined criteria, like the minimum distance from the price bars or the number of touches.

Validation: Ensure the lines make sense contextually and adjust parameters if necessary.

For the Close Price Method, we could calculate the trend line by finding the least squares fit for the closing prices over the last 'n' periods. This trend line would represent the direction of the prevailing price movement.

BREAK

The High/Low Method might be a bit more complex because it involves two lines (upper and lower bounds) that define the channel. We would need to find a pair of lines that contain the price movements within them while respecting the highs and lows.

When creating these lines, we should also decide on how to handle outliers and the weight of each data point. For instance, recent data might be given more weight than older data if we believe that the most recent trends are more indicative of future price movements.

Since precision is key, we would need to define "precision" in this context. It could mean the tightest fit to price bars, the most touches without breaking, or another criterion. Your input on the definition of precision would be crucial.

The approach will indeed be iterative, experimenting with both methods and tweaking parameters as we go along. Once we have a working model, we can adjust it to find the most useful trend lines for your analysis.