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Progress Report

## Robinhood Popular Stock Analysis

Historical stock market data has been pulled from the Robinhood API for ten of the most popular stocks: Apple, Microsoft, Exxon Mobil, and Wells Fargo to name a few. Daily close price and volume data was extracted for each of the ten stocks over a three-month timeframe. This data will be used to construct a chart that shows the relationship between price and volume over time for a selected stock. Because this data was accessed from an API, it will be live and reflect information from the past three months on any given day.

The Robinhood API has some limitations when it comes to popularity data. It is possible to get a stock’s popularity data on any given day, but historical popularity data must be acquired over time through the API. Here a stock’s popularity is defined by how many Robinhood users are holding its shares. There is a dataset containing historical popularity information on Kaggle that can be used. The data will not be live, but it was last updated just a few days ago (three days ago as of writing this on 6/26).

As a first step, D3.js has been used to create a dynamic chart showing the three-month historical price and volume data for selected stocks. For now, only ten stocks have been implemented for a proof of concept. More stocks can easily be added once the chart has been finalized by adding stock ticker symbols to the API call. Once these charts are finished, a bar-chart race visual will be created with D3.js to show how the top ten most popular stocks on the Robinhood platform have changed over time. These will be the two visualizations for this project.

The webpage framework has been loosely created with HTML. No CSS has been applied thus far but will be once the D3.js visualizations are complete. I am planning for a simple and elegant layout consisting of only one or two HTML page(s). The bulk of the work on this project will be creating highly customized and dynamic visuals with live data connections when possible.