Project Title: Custom Indexing

Team Members:

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Project Description/Outline:

Traditional ETFs and Index Funds are becoming outdated as fractional shares, digital transaction settlement and app-based retail investor platforms have given new technological power to the average investor to create custom indexes that reflect their values.

This project intends to build a custom indexing engine that would allow an average investor to build their own index fund based on their values and also projects the performance of the custom fund against the traditional ETF.

Research Questions to Answer:

- Input investor's budget and thematic preferences
- Remove thematic exposure of index based on investor inputs
- Create new Index constituents by weights
- Calculate fractional share allocation
- Montecarlo simulation to compare the performance of the custom index to the original benchmark index

Datasets to be Used:

- Vanguard S&P 500 ETF Allocation Data
- S&P 500 market data
    - Price per share, Market Cap
- Company Thematic Exposure (Industry, Green rating)

Rough Breakdown of Tasks:

- Concat allocation data, pricing data, and thematic exposure
- Create investor input UI (Questionary/Pyviz)
- Create general analysis code for Montecarlo and summary statistics (Beta, performance stats, fractional share allocation)
- Display Montecarlo dashboard

Action Items for Next Meeting:

- Create Github and Share - Kevin BaRoss
- Pull fund weights into CSV
- Find and download thematic data