Team Kappa:

Kanishk Kothakonda: kothako@umich.edu
Oliver Garnica: ogarnica@umich.edu
Kibrom Bereket: kbereket@umich.edu

A. What APIs/websites will you be gathering data from?
    1. https://marketstack.com/?utm_source=Github&utm_medium=Referral&utm_campaign=Public-apis-repo-Best-sellers (historical and live market data)
    2. https://www.econdb.com/api/series/?page=1 (economic data)
    3. https://www.finnhub.io/docs/api/insider-transactions (insider trading info)

B. What data will you collect from each API/website and store in a database?
    Econdb: Quarterly GDP, inflation, interest rates
    Finnhub: Insider traders details (ie. name, company, and position [if they have it], trades, trade data, price, pnl, number of shares)
    Market stack: Collect historical stock data (daily highs, lows, volume, open, close for the selected insiders that we find on finnhub.io

C. What data will you be calculating from the data in the database?

    We will be calculating the overall profits from each trade made from each person in the insider trading api, and possible correlations between insider PnL and market trends.

D. What visualization package will you use (Matplotlib, Plotly, Seaborn, etc)?

    Matplotlib

E. What graphs/charts will you be creating?

    We will make scatter plots to plot the insider trade returns, graphs to display the overall trends of certain stocks, and a time series graph that overlays the market data with the macroeconomic data to determine correlations and visualize trends between the two. Bar chart of data about the insiders (their position in companies, trends in volume of trades with the current macroeconomic situation).

F. Who is responsible for what?

    Gathering data: Kanishk and Oliver
    Processing: Kibrom
    Visualizing: Kanishk and Oliver
    Report: Everyone