Project Title:

**Stock Price Performance and Industry Trends: A 10-Year Retrospective Analysis**

Team: Jenny Noga, Kenny Siegler, Trey Wade, Ran Ji

Project Description/Outline:

This project aims to analyze stock price data of various industries to identify the top-performing industries over the past ten years. We will focus on understanding the most profitable, stable, and rapidly growing industries during this period. The analysis will provide insights into market trends and potential investment opportunities for investors and businesses.

Research Questions:

1. Which are the top 10 industries that have experienced the most significant increase in stock prices over the past ten years?
2. Which industry has been the most stable in terms of stock price fluctuations over the past ten years?
3. Which industry has been the most profitable, as indicated by stock price growth, over the past ten years?

Datasets to be used: www.stockdata.org

Rough Breakdown of Tasks:

Data Acquisition:

a. Access the stock price dataset from www.stockdata.org.

b. Filter the dataset to include stock price data for the past ten years.

c. Categorize the companies into their respective industries.

Data Pre-processing:

a. Clean and format the data, removing any inconsistencies or missing values.

b. Calculate the stock price percentage increase for each company over the ten-year period.

c. Compute industry-wise average stock price percentage increases, stability measures, and profitability metrics.

Data Analysis:

a. Identify the top 10 industries with the highest average stock price percentage increase over the past ten years.

b. Determine the most stable industry by analyzing stock price fluctuations and volatility measures.

c. Evaluate the most profitable industry based on stock price growth and other relevant financial indicators.

Visualization and Reporting:

a. Create graphical representations of the top 10 industries with the most significant stock price increases.

b. Visualize the stability of the most stable industry over time.

c. Represent the most profitable industry and its performance compared to other industries.

d. Compile the results and findings into a comprehensive report with relevant visualizations and recommendations.

Review and Finalization:

a. Review the analysis and validate the results.

b. Make any necessary adjustments or refinements based on feedback.

c. Finalize the report and prepare it for presentation or publication.