

A decorative graphic on the left side of the slide consisting of two overlapping parallelograms. The front one is blue and the back one is a light green. They are positioned diagonally, with the blue one partially covering the green one.

Fall Presentation

CS5001 - Senior Design



Group Members and Advisor

Group Members

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Project Abstract

- Goal: Create a web application that provides financial investment insight for its users
- This application will:
 - track existing financial data of historical stock/crypto prices.
 - track investments made by government officials, who often have insight on direction of market based on upcoming policy changes.
 - store all data in a database that is connected to the app.
 - perform data analytics using various algorithms to generate trends for the future of the market.
 - generate conclusions on sound investments to be made by users.



User Stories

- As a student interested in data science, I want to learn about how past data can be effectively analyzed, so that I will better understand trends and conclusions that are drawn from a set of data.
- As a student interested in finance, I want to learn more about the stock market, so that I can share this information with other users seeking to learn.
- As a user interested in investing, I want to receive financial information, so that I have a greater ability to draw profits from my investments.

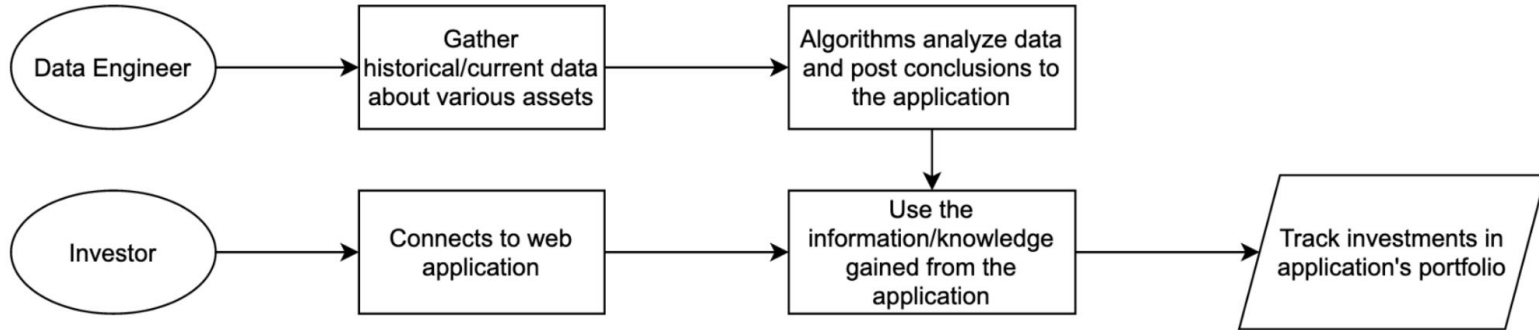


User Stories (cont.)

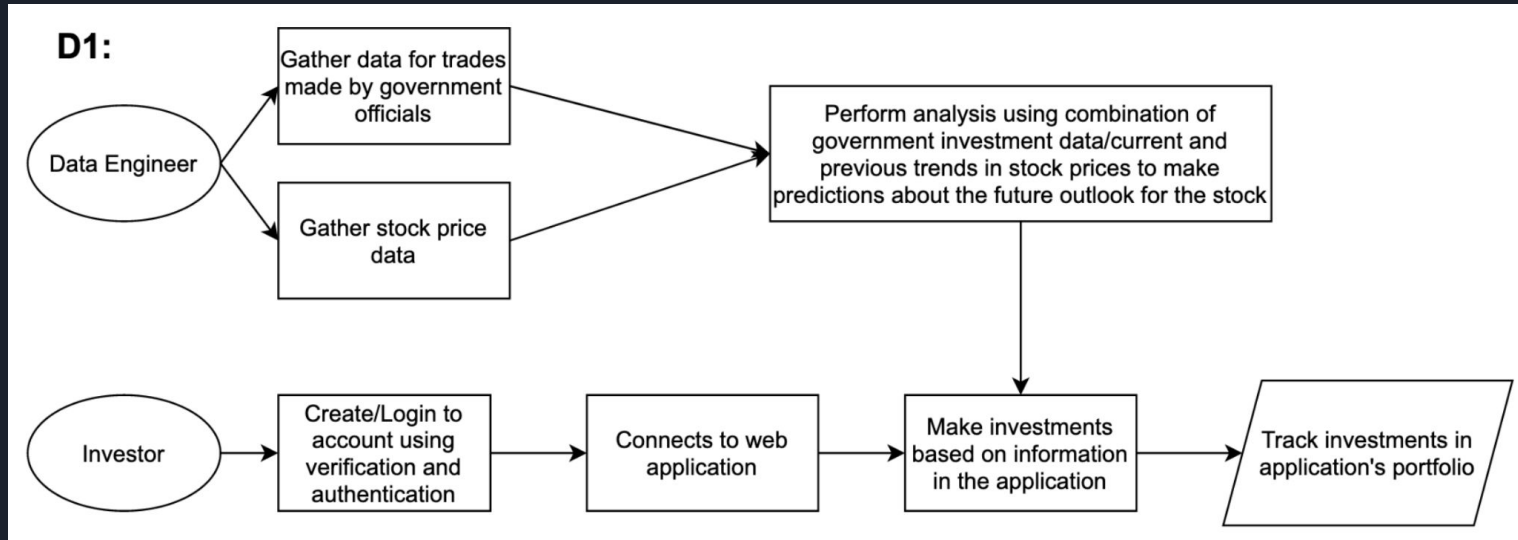
- As an investor, I am interested in learning more about the investments made by government officials, so that I can understand investing behavior from individuals who have a good understanding of how upcoming policies will affect the economy.
- As a person with multiple investments, I want to be able to track all of my investments in an online portfolio, so that I can easily view and make more informed decisions about my investments.

Design Diagrams

D0:

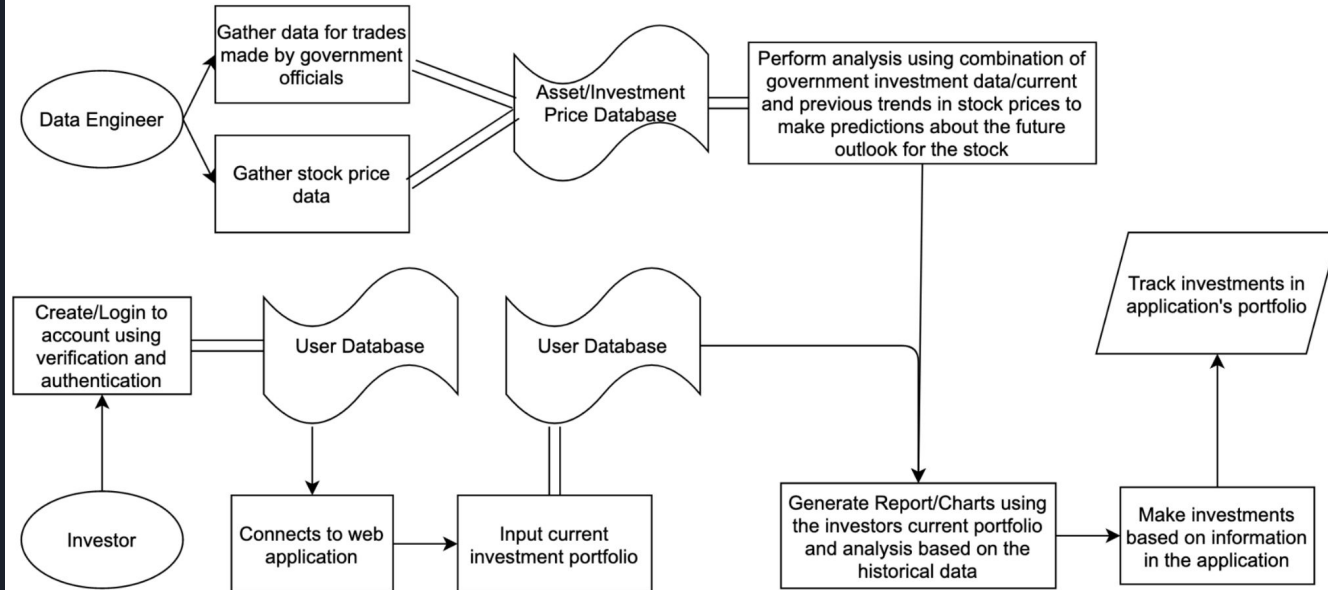


Design Diagrams



Design Diagrams

D2:





Major Project Constraints

3 Major Constraints

- Time
- Scope
- Professional/Technical Expertise



Current State of Project

- Created a roadmap of project tasks
- Finishing planning of the project
- Beginning development
 - An initial front-end has been created to begin displaying application information
 - An initial back-end has been created to provide an application framework



Expected Accomplishments (Fall 2021)

Decided exactly what the requirements for the project will be and HOW it will be accomplished.

- Create a UI with a friendly user experience
- Research various algorithms to analyze data and financial techniques
- Investigate methods of graphing data

Division of Work

Task	Description	NC Effort	BS Effort	JK Effort
1	Research various algorithms that can be used to analyze data	10%	10%	80%
2	Investigate methods of tracking investments by government officials that can be used for future price forecasts	20%	20%	60%
3	Research financial techniques to help users invest their money	33%	33%	33%
4	Investigate availability of API's for gathering both historical and current stock prices	90%	5%	5%
5	Survey potential users for additional feature requests that can be added to the application	65%	25%	10%
6	Investigate potential methods of hosting a server for the web application	80%	5%	15%
7	Investigate various data graphing methods to track portfolio data	10%	80%	10%
8	Create a UI with a friendly user experience	10%	75%	15%
9	Implement any of the backend framework for server	40%	20%	40%
10	Develop unit tests for both the front-end and back-end to ensure as features get added everything works as intended	33%	33%	33%
11	Design a database that can hold assorted financial data	40%	20%	40%
12	Implement user authentication into the web application	80%	0%	20%
13	Test web application across different devices and browsers to ensure it's supported across various platforms	15%	70%	15%
14	Survey users who test the application and obtain comments/feedback	33%	33%	33%
15	Document an instructional guide that can be available to new users who are new to using the web application	33%	33%	33%
16	Develop documentation for the high level design of the application	10%	80%	10%
17	Release the application and obtain user feedback on its quality	33.33%	33.33%	33.33%



Demo

By the expo, we expect to:

- Illustrate all of the application's features
- Share a glimpse of the development process and framework that was created
- Demonstrate using the application as an end-user

We look forward to sharing the details of the finished application at the expo!