Project Requirement

1. At least Store 10 stocks (Google Stock, Yahoo Stock and any other three stocks of your choice) information in your database. For each stock, you are expected to have real-time data and historical data. The real-time data should contain the price, time and volume. The time slice between two real-time points should be no more than one minute. The historical data should at least contain time, open, high, low, close, and volume.

2. Prediction Strategies (Long term and short term) that can help while making stock investment decisions.

You are required to use Bayesian Curve Fitting, ANN, SVM, and at least two indicators to do predictions. For the indicators, you need to calculate the value and show them in the chart like the existing website does.

3. Figure (Basic requirement): You can plot a figure of any stock for a certain time period. The time interval of the figure (x axis) is preset (start from some point to the current time) and can be changed by users. The value interval (y axis) should be automatically adjusted by the input data.

4. Query

1) Show the list of all companies in the database along with their latest stock price.

2) Get the highest stock price of Google in the last ten days

3) Average stock price of Microsoft in the latest one year

4) Lowest stock price for each company in the latest one year

5) List the ids of companies along with their name who have the average stock price lesser than the lowest of Google in the latest one year

You are required to integrate these queries into your web interface, not just do them at background.

5. Special Features

Create something fun and useful for users.

Report and Presentation content requirement

Besides the requirements which has been mentioned in the preliminary presentation, you have to cover additional content below:

1. Block Diagram: Describe your web application with block diagram.

2. Use cases: Cover all the use cases in your application.

3. Programming Technologies: Including languages and other tools.

4. Special Features

5. Web sources for stock price.

6. Prediction Strategies: Including short term and long term strategies in DETAILS. (You don’t have to describe too much details of your algorithms, but explain how they work.)

Bayesian Curve Fitting & ANN: Chenfan

SVM & 2 Indicators (EMA, RSI): Xinyu

Webpages: Yuwei, Jianing, Cheng

Graph: Yuwei

StockManagement: Cheng

Search: Jianing