

Project Proposal - 20011393
FYP – ZSH-Stock-Investing Web Application (Java spring boot & Vaadin application)

Description

I want to develop a Java web application that makes use of well-known front-end frameworks like Vaadin and Spring Boot. Users will be able to view the weather in any area, stocks, and even news using the application's API after logging in and registering.

However, Professor Konur indicated that the application should be more computational, so I recommend that I focus on one area. For example, I could concentrate on stocks and develop an application that recommends equities to investors based on metrics; this would require complex algorithms that use real-time data.

Key features

1. Login and register (database interaction)
2. View stocks (fetch data from rest API)
3. Processing stock data to using algorithms (data processing)

Update

Problem-solving

The application's problem-solving part tries to process stock metrics using algorithms to inform users of the best times to buy, sell, and hold onto stocks as well as their prospective returns.

Algorithm

The algorithm will be used to process a stock based on the symbol and then fetch data using an API.

algorithm complexity

The algorithm I want to create will have Linear Time Complexity: $O(n)$ since it will require metric data, and if the metric data is large, it will take longer to compile.