

SECTOR BASED TRADE RECOMMENDATION SYSTEM

Group No. 12

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PROBLEM STATEMENT



Create a Trade recommendation system based on user-selected sectors from Nifty stocks



CSV file

- A csv file is created containing Nifty100 stocks along with their respective sectors.



User Login

- Registered user logs in to his account.



Filter based on user-selected sector

- The software reads the CSV file and filters out stocks based on user's selection.



Monitor and Recommend

- The filtered stocks are then analyzed using historic data of up to 14 days and top 5 performing stocks are recommended to the user along with key stats.



Add Stock to watchlist

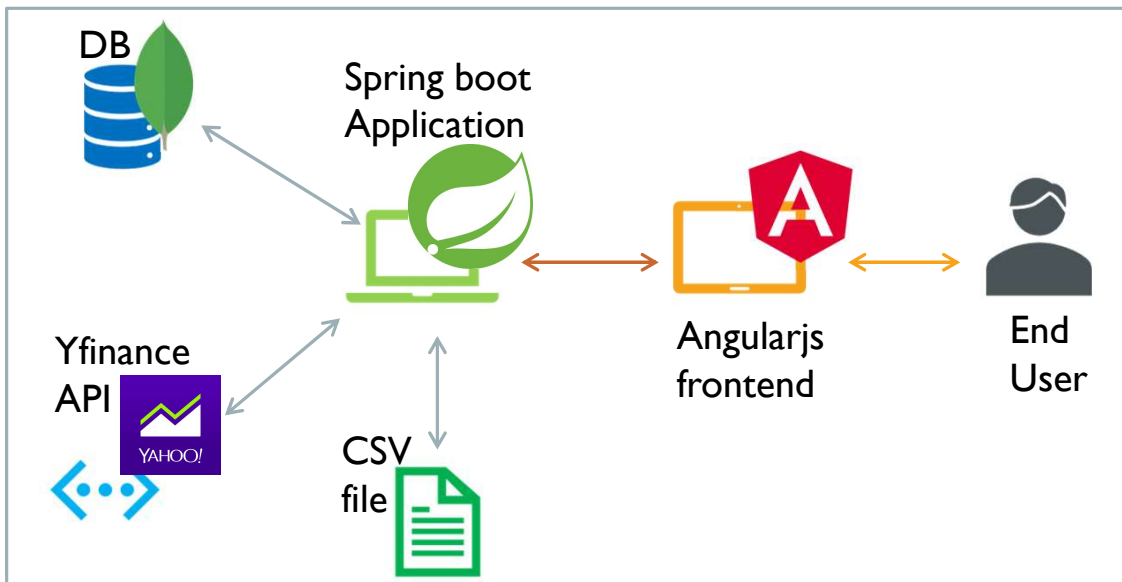
- The user has an option to add any stock to his watchlist along with its quantity.

APPROACH (OVERVIEW)



APPROACH
(TECH STACK)

- 1) Frontend: Created an interactive UI using HTML/CSS/JS and Bootstrap with Angularjs to allow user login, display sector based recommendations along with key statistics along with user's watchlist.
- 2) Middleware: Created a spring boot application to –
 - 2.1) Connect to user database for user login and information retrieval (watchlist)
 - 2.2) Fetch ticker symbols from Nifty100 CSV file based on user-selected sector.
 - 2.3) Fetch quotes using yFinance API and Recommend top 5 stocks.
- 3) Backend: A Mongoddb Database to maintain user data including username, password and saved stocks with their quantity.



IMPLEMENTATION (OVERVIEW)

IMPLEMENTATION (RECOMMENDATION)



$$\text{Stock Score} = \frac{(\text{CP2} - \text{CPI}) + (\text{CP3} - \text{CP2}) + (\text{CP4} - \text{CP3}) + \dots + (\text{CPI4} - \text{CPI3})}{14}$$

**CP = Closing Price*



CHALLENGES AND LEARNINGS



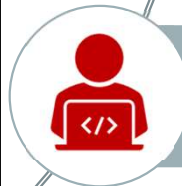
Huge Learning curve (both technical and non-technical)



Restarting the project after a break

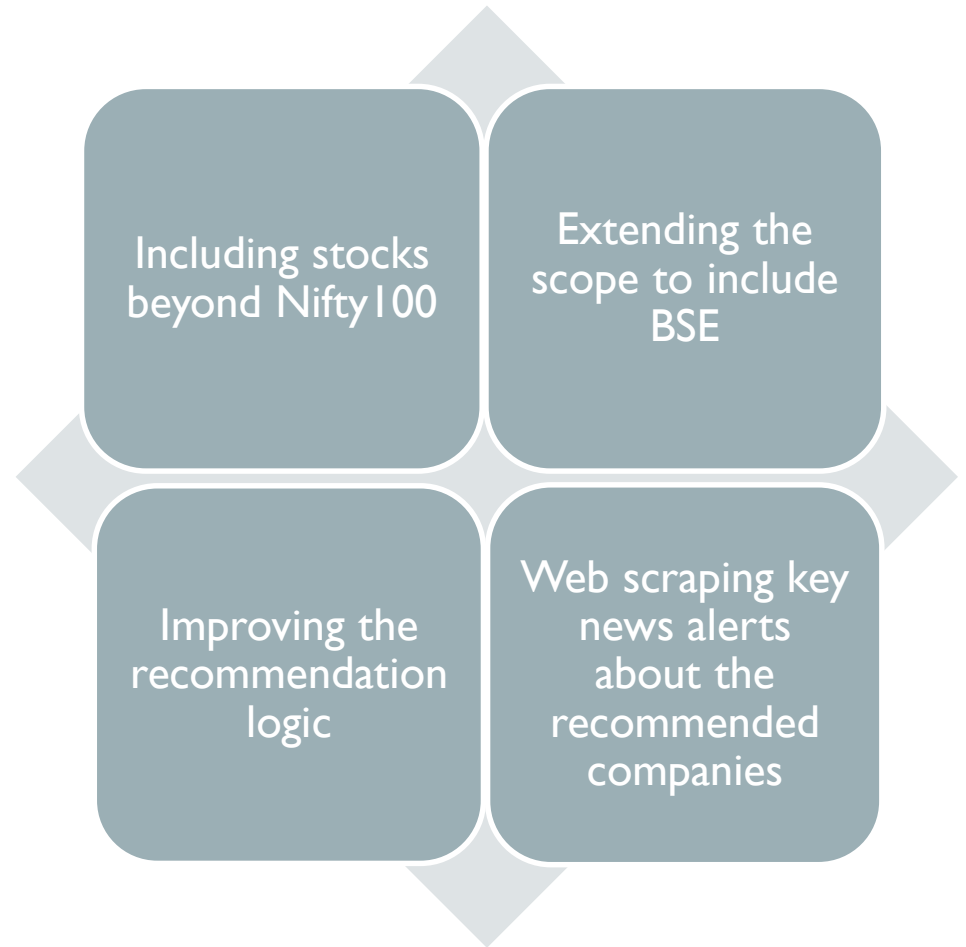


Time management with the team



Technical challenges

FUTURE SCOPE





THANK YOU

- We sincerely thank Citi for this excellent opportunity.
- We also thank our mentor Nishi for being an excellent guide and helping us throughout the course of this project.