CITI BRIDGE MENTORSHIP PROGRAM 2022-2023

Group no : 12

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PURPOSE

Project statement: Sector based Trade Recommendation System

Construct a trade recommendation system based on user-selected sectors (from Nifty stocks). This SRS explains the functional and performance requirements of this system.

SCOPE:

The system provides a UI for user to login, which leads to the dashboard and lets the user choose amongst around 15 sectors he wants to look for stocks in. The user can save/wishlist stocks as he likes and this wishlist will be saved and displayed every time he logins.

PROJECT TIMELINE:

The project was completed in 3 phases:

1. Phase 1: Collection of nifty 100 stocks, research on which API to use
2. Phase 2: Backend involved creation of the database to store user information to display on dashboard, retrieving data from API.
3. Phase 3: UI design including connection to the backend

DEFINITIONS AND ABBREVIATIONS

1. ASK PRICE: Ask price is the price at which sellers are willing to sell shares; the bid price and ask price are always quoted together, and the bid price is always the lower of the two.

2. BID-ASK SPREAD: A bid-ask spread is the amount by which the ask price exceeds the bid price for an asset in the market. The bid-ask spread is essentially the difference between the highest price that a buyer is willing to pay for an asset and the lowest price that a seller is willing to accept to sell it.

3. BID PRICE: A bid price is the price a buyer is willing to pay for a security. This is one part of the bid, with the other being the bid size, which details the amount of shares an investor/trader is willing to purchase at the bid price.

4. CLOSE PRICE: generally refers to the last price at which a stock trades during a regular trading session. For many U.S. markets, regular trading sessions run from 9:30 a.m. to 4:00 p.m. EasternTime.

5. OPEN PRICE: The opening price is the price at which a security first trades upon the opening of an exchange on a given trading day; for example, the New York Stock Exchange opens at precisely 9:30 a.m. EasternTime. The price of the first trade for any listed stock is its daily opening price.

6. SECTOR: A sector is an area of the economy in which businesses share the same or a related product or service. It can also be thought of as an industry or market that shares common operating characteristics. Dividing an economy into different pieces allows for more in-depth analysis of the economy as a whole.

7. STOCK: A stock is a type of security that signifies ownership in a corporation and represents a claim on part of the corporation assets and earnings. There are two main types of stock: common and preferred.

FUNCTIONAL REQUIREMENTS

1. User logs in to the system with a username and a password. (You do not need a registration module – rather you can have a predefined set of users in Database against which authentication is done)
2. Once logged in, the user selects a market sector (Automotive, financial, Health Care, Technology etc.) in order to get suggestions on securities.
3. On selection of sector, filter for Nifty Constituents which match it. From the filtered securities - market data should be used to take the top 5 performing stocks on the basis of their growth over the last two weeks.
4. User can select to save any of the recommended stocks with quantity and current market price.
5. The Data should be persisted in DB so that the data is not lost after the user closes the browser.
6. When the user logs in again the user should be able to see the saved stocks and stats.