Problem Statement

A stock brokerage firm wants to provide an online stock trading service to enable its clients to make trades via the computer. With this system, a client must first be registered before he can trade online. The registration process involves the client providing his ID number, address and telephone number. A client may open one or more accounts for stock trading. The stock brokerage firm needs to be registered with a stock exchange before its clients can trade the stocks listed on the stock exchange. A stock brokerage firm can be registered with one or more stock exchanges. The stock brokerage firm may need to pay monthly charges for using the services provided by the stock exchange. Once registered, the client can buy and sell stocks. The client

Introduction

Purpose : The purpose of this is to provide an online stock trading service to enable its clients to make trades via the computer.

Scope of this document : This project is to develop a subsystem of Stock Trading System, in which the brokers will get alot of convenience and shareholders will execute their business about stock quickly and effectively.This will provide brokers with a flat to deal with the fund belonging to their
customers.

Overview : This document outlines the requirements for a Stock Market software system. The software will be a web-based application that allows investors to trade stocks, view market trends, and manage their portfolios.

Functional Requirements

User Authentication The system shall require users to authenticate themselves before accessing the platform. User authentication will be accomplished by username/password authentication or other secure authentication mechanisms.

Trading The system shall allow users to trade stocks online. Users will be able to view real-time stock prices, place orders to buy or sell stocks, and view their transaction history.

Portfolio Management The system shall allow users to manage their portfolio by adding or removing stocks from their portfolio. Users shall be able to view their portfolio value, portfolio performance, and any other relevant metrics.

Market Analysis The system shall provide market analysis tools such as graphs, charts, and other visualizations to help users make informed investment decisions. Users shall be able to view real-time market trends, industry trends, and other relevant information.

Alerts and Notifications The system shall provide users with alerts and notifications related to their portfolio, market trends, and any other relevant information. Users shall be able to set up custom alerts and notifications based on their preferences.

Reporting The system shall provide users with reporting capabilities such as portfolio performance reports, transaction history reports, and other relevant reports.

Non-Functional Requirements

Performance The system shall be able to handle a large number of concurrent users and transactions. The system shall be able to provide real-time stock prices, market trends, and other relevant information to users.

Security The system shall be secure and protect users' personal and financial information. The system shall use secure communication protocols and encryption mechanisms to protect data in transit and at rest.

Scalability The system shall be scalable and able to handle increasing user demands.The system shall be able to handle large amounts of data and user requests.

Reliability The system shall be reliable and available 24/7. The system shall have backup and disaster recovery mechanisms in place to ensure data availability in case of any system failures.

User Interface Requirements

Navigation The system shall provide users with an intuitive and easy-to-use interface. Users shall be able to navigate through the system easily and find the information they need quickly.

Visual Design The system shall have a visually appealing design that is easy on the eyes and does not distract users from the content.

Accessibility The system shall be accessible to users with disabilities. The system shall comply with accessibility standards such as the Americans with Disabilities Act (ADA).

Performance Requirements

Response time : the architecture of the software is designed in such a way that it will provide user with a fast response time and without any variation in response time.

Workload : The software will be able to handle the workload with current available hardware without any upgrade.

Scalability : Software shall be capable of supporting at least 300,000 customers when implemented into a suitable production environment.

Technical Requirements

Platform The system shall be developed as a web-based application and shall be accessible from any modern web browser.

Architecture The system shall be developed using a modern, scalable, and secure architecture that is easy to maintain and extend.

Programming Languages and Tools The system shall be developed using modern programming languages and tools such as Java, Python, JavaScript, and React.

Constraints

Time : The system shall be developed within a specified timeframe and shall be delivered on time.

Budget : The system shall be developed within a specified budget and shall not exceed the budget.

Glossary User: A person who uses the Stock Market software system.

Authentication: The process of verifying the identity of a user.

Trading: The process of buying and selling stocks.

Portfolio: A collection of stocks owned by a user.

Market Analysis: The process of analyzing market trends and industry trends. Alert