→ Stock Management System

~~1. Introduction~~

~~1.1 Purpose of the Document~~

This document specifies the requirements for the development of a stock management system sms. It is designed to automate stock tracking, inventory management & supplier interactions for businesses.

1.2 Scope

It outlines the core features, technical requirements & system specification for necessary for managing stocks, orders & inventory. Development time, resource allocation is highlighted.

1.3 Overview

The SMS will help businesses track inventory levels, manage

1. Introduction

1.1 Purpose of the document

This document highlights the requirements for a financial stock management system that allows investment bankers, investors, brokers & traders to manage stock portfolios, execute trades & trade market data.

1.2 Scope

The doc highlights the functional & non functional requirements for the system. It also covers system architecture, performance goals & budget.

1.3 Overview

The system provides a platform for users to monitor stock prices, manage portfolios, execute buy/sell & generate performance reports. It will integrate w/ stock exchanges to provide real time data.

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2. General Description

* Monitor stock prices, manage portfolios, execute buy/sell
* Facilitate trade execution, manage client portfolios, generate reports.
* Manage user accounts, monitor system performance
* Real-time stock market data feed.
* Porfolio tracking & analysis.
* Integration w/ multiple stock exchanges (NASDAQ, NYSE etc)

3. Functional Requirements.

3.1 User registration

* Users can register & login using secure authentication mechanisms.
* System permissions handled based on role.

3.2 Real-time stock data

* System provides real-time stock feed, market indices & financial news.
* User can search for stock symbols, view historical price data etc.

3.3 Portfolio management

* Users can create & manage portfolios
* System provides realtime portfolio value - gains/losses & assets.

3.4 Order Execution

* System allows to execute stock buy & sell orders, including market orders, limit orders & stop-loss orders.
* The system must confirm trade execution & update porfolio realtime.

4. Interface Requirements.

4.1 User Requirements Interface

* System provides a user friendly web and mobile interface for monitoring stock prices, user porfolio, executing trades etc.

4.2 External system Interface

* System must integrate with stock exchanges & financial data providers (Bloomberg, Reuters) for realtime stock data
* Integration w/ payment gateways & banking system for fund transfers.

5. Performance Requirements

5.1 system load

* system must be able to handle upto 10,000 concurrent users & process up to 4000 transactions per second.

5.2 Response Time

* Realtime stock data updates should occur with a latency of not more than 1 second.

* Order execution & confirmation should be completed in 2 seconds.

6 Design Constraints

6.1 Compliance

* System ~~with~~ must comply with the financial regulators like the SEC, FINRA for data protection and trading compliance.

6.2 Tech Stack

* System must be built on scalable technologies such as cloud architecture (AWS) to handle fluctuating marketing demand

7. Non Functional Requirements.

7.1 Security

* System must employ end to end encryption for all user data & transactions

* User authentication must include two factor authentication for all sensitive operations.

7.2 Reliability

* System must ensure 99.9% uptime to allow for no interrupts.

8. Preliminary Schedule & Budget.

8.1 Timeline

* Requirement analysis: 1 month
* Development: 4 months
* Testing & QA: 1 month
* Deployment: 2 weeks

8.2 Budget

* Development: $250,000
* Integration w/ stock exchanges: $50,000
* Maintenance: $15,000 per year