TRADING APPLICATION SRS DOCUMENT:

1. Introduction

1.1 Purpose

The purpose of this trading application is to provide users with a platform to buy, sell, and manage financial assets such as stocks, bonds, and cryptocurrencies.

1.2 Scope

The trading application will allow users to:

- Create accounts and profiles

- Search for financial assets

- Place buy and sell orders

- Monitor their portfolio

- Receive real-time market data and updates

The trading application will not:

- Offer financial advice or recommendations

- Execute trades automatically without user confirmation

1.3 Definition, Acronyms & Abbreviations

- SRS: Software Requirements Specification

- UI: User Interface

- H/W: Hardware

- S/W: Software

1.4 References

List any references used in creating this SRS.

1.5 Overview

This document outlines the requirements for the trading application, including overall description, specific requirements, external interfaces, functional requirements, performance requirements, design constraints, attributes, logical database requirements, and other requirements.

2. Overall Description

2.1 Product Perspective

The trading application will be a standalone system accessible via web browsers and mobile apps. It will interact with financial markets through APIs provided by stock exchanges and other trading platforms.

2.2 Product Functions

- User registration and authentication

- Asset search and browsing

- Placing buy and sell orders

- Portfolio management

- Real-time market data updates

2.3 User Characteristics

The users of the trading application will include individual investors, traders, and financial professionals. They may have varying levels of experience in trading and investing.

2.4 Assumptions & Dependencies

Assumptions:

- Users have access to a stable internet connection

- Users have basic knowledge of trading and financial markets

Dependencies:

- Integration with third-party APIs for market data and trading execution

2.5 General Constraints

- Compliance with financial regulations and security standards

- Compatibility with major web browsers and mobile devices

- Performance and reliability of third-party APIs

3. Specific Requirements

3.1 External Interfaces Requirements

3.1.1 UI

- The UI shall be intuitive and user-friendly, with support for desktop and mobile devices.

- Users shall be able to navigate between different sections of the application easily.

3.1.2 H/W Interfaces

- The trading application shall not have any specific hardware requirements beyond a device capable of running a modern web browser or mobile app.

3.1.3 S/W Interfaces

- The trading application shall integrate with third-party APIs for market data and trading execution.

3.1.4 Communication Interface

- The trading application shall use HTTPS for secure communication between the client and server.

3.2 Functional Requirements

- User Registration: Users shall be able to create accounts with a unique username and password.

- Authentication: Users shall be required to log in to access the trading platform.

- Asset Search: Users shall be able to search for financial assets by symbol, name, or category.

- Order Placement: Users shall be able to place buy and sell orders for assets.

- Portfolio Management: Users shall be able to view and manage their portfolio of assets.

- Market Data: Users shall receive real-time updates on market prices and trends.

3.3 Performance Requirements

- The trading application shall be responsive and capable of handling simultaneous user interactions.

- Market data updates shall be delivered to users in real-time with minimal latency.

3.4 Design Constraints

- The trading application shall be designed to scale horizontally to accommodate increasing numbers of users.

- The UI shall follow responsive design principles to ensure compatibility with different screen sizes and resolutions.

3.5 Attributes

- Security: The trading application shall implement encryption and authentication mechanisms to protect user data and transactions.

- Reliability: The trading application shall have a high uptime and minimal downtime for maintenance.

- Scalability: The trading application shall be able to handle a growing user base and increasing transaction volumes.

3.6 Logical Database Requirements

- The trading application shall store user account information, transaction history, and portfolio data in a secure database.

- The database shall be designed for efficient retrieval and storage of large volumes of data.

3.7 Other Requirements

- Compliance: The trading application shall comply with relevant financial regulations and standards.

- Documentation: The trading application shall be accompanied by user documentation and support resources.

This concludes the Software Requirements Specification for the trading application. Additional details and specifications may be added as needed during the development process.