Software Requirements Specification (SRS) Document for Bank Management System.

1. Introduction

1.1 Purpose

The purpose of the Bank Management System is to offer users a convenient digital platform for managing their bank accounts effectively. This Software Requirements Specification (SRS) document outlines the necessary requirements and specifications for developing a user-friendly and efficient Bank Management System. It serves as a roadmap for the development, testing, and deployment phases of the project.

1.2 Intended Audience

- Bank customers: Primary users of the system, conduct transactions.
- Administrators: Manage and oversee system operations.
- Developers: Build, maintain, and enhance the system.
- Development teams: Collaborate to deploy the system.
- Quality assurance personnel: Test and ensure system quality.
- Project managers: Coordinate project execution.
- System administrators: Manage system functions.
- End-users: Utilize the system for banking activities.

1.3 Intended Use

The Bank Management System is designed to assist users in performing essential account management tasks such as logging in, creating accounts, making deposits, withdrawals, and checking account details. It aims to enhance banking operations and customer satisfaction by providing a secure and user-friendly platform for managing accounts, processing transactions, and accessing ATM services. The system will be utilized by both bank staff for maintenance purposes and customers for their banking needs.

1.3 Product Scope

The Bank Management System encompasses functionalities related to account management, including:

- Signup: Allows users to register for a new account in the system.
- Login: Enables users to access their accounts securely by providing valid credentials.
- Deposit: Allows users to add funds to their accounts.
- Withdrawal: Enables users to withdraw funds from their accounts.
- Inquiry: Allows users to check their account balance and transaction history.

The system will include features such as:

- User Authentication: Ensures the security of user accounts by verifying their identities during login.
- Account Creation and Management: Facilitates the creation of new accounts and enables users to manage their account details.
- Transaction Processing: Handles the processing of financial transactions such as deposits, withdrawals, and transfers.
- ATM Functionalities: Provides features related to ATM services, including cash withdrawals, balance inquiries, and PIN changes.
- Integration with Existing Banking Systems: Ensures seamless communication and data exchange between the Bank Management System and other banking systems, enhancing efficiency and accuracy in banking operations.

1.5 Risk Definitions

System Risks:

- Security Breaches: Potential unauthorized access to sensitive information, compromising user data.
- Data Loss: Risk of accidental or intentional deletion or corruption of user data.
- System Downtime: The possibility of the system is unavailable, leading to disruption in banking services.

Project Risks:

- Technical Challenges: Difficulty in implementing complex system features, such as real-time messaging and group chat functionalities.
- Security Vulnerabilities: Exposure to potential security threats and vulnerabilities that may compromise system integrity.
- User Adoption and Engagement: Challenges in ensuring widespread adoption and active engagement among users, necessitating effective marketing and promotion strategies.

2. Overall Description

2.1 User Classes and Characteristics

The Bank Management System will accommodate various user classes, each with distinct roles and responsibilities:

Bank Staff:

- Role: Responsible for system administration, account management, and transaction processing.
- Characteristics: Authorized personnel tasked with maintaining system integrity, managing customer accounts, and processing financial transactions.

Customers:

- Role: Engage in banking services including account management, transaction processing, and ATM services.
- Characteristics: End-users utilizing the system for managing their accounts, conducting transactions, and accessing ATM services provided by the bank.

2.2 User Needs

The Bank Management System will address the diverse needs of bank staff and customers, including:

- Efficient Account Management: Providing tools for account creation, updating, and deletion.
- Secure Transaction Processing: Enabling users to perform various transactions securely.
- Seamless ATM Services: Facilitating ATM functionalities such as deposit, withdrawal, and balance inquiry.

2.3 Operating Environment

The Bank Management System will operate within a secure network environment, ensuring data confidentiality and integrity through access controls.

- Accessibility: Users can access the system through desktop computers and web browsers.

- Compatibility: The system will be compatible with widely used browsers; however, specialized security measures will be implemented to ensure compatibility with banking standards and requirements.

2.4 Constraints

The development process will be guided by several constraints:

- Agreement with Regulations: The system must comply with banking regulations and security standards to ensure legality and protect user data.
- Compatibility: It should be compatible with common web browsers and mobile devices to ensure widespread accessibility.
- Integration: Compatibility with existing banking systems is necessary for seamless integration and data exchange.
- Scalability: The system architecture should support scalability to accommodate potential growth in user base and data volume while maintaining performance.

2.5 Assumptions

The development of the Bank Management Website is based on certain assumptions:

- User Familiarity: Users are assumed to have basic knowledge of banking operations and online transactions.
- Internet Connectivity: It is assumed that users will have access to Internet connectivity for conducting online transactions.
- Follow the Security Protocols: Users are expected to follow security protocols to safeguard their accounts and personal information.

3. Requirements

3.1 Functional Requirements

User Authentication:

- Users can log in using their card numbers and passwords.
- Sign-up functionality is available for new users to create accounts.
- Clear button functionality allows users to clear incorrect inputs.

Account Management:

- Users can fill out a unique application form with personal details, additional details, and account details.
- Account activation requires submission of the application form.

ATM Services:

- Users can deposit funds by entering the desired amount.
- The main screen displays options for deposit, fast cash, pin change, cash withdrawal, mini statement, balance inquiry, and exit.
- Users can verify deposit amounts before confirmation.

3.2 Non-Functional Requirements

Performance and Responsiveness:

- The system should respond promptly to user interactions.
- Transactions should be processed swiftly with minimal latency.

Security and Privacy:

- User data should be encrypted and securely stored.
- Strong authentication mechanisms must be implemented.
- Privacy settings should be available to control account visibility.

Scalability and Reliability:

- The system should scale seamlessly to accommodate increasing user numbers and transaction volumes.
- High availability and minimal downtime are imperative.
- Usability and User Experience:
- The user interface should be intuitive and user-friendly.
- Error messages should be clear and informative.

Compatibility:

- The system should be compatible with a range of modern browsers and devices.

Integration:

- The system should integrate smoothly with existing banking systems and databases.