Software Requirements Specification

for

Bank Management System

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08 April 2024

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Revision History

Revision	Date	Author(s)	Description
1.0	05.04.2024	Rifa Nanziba Keka	
2.0	06.04.2024	Tofayel Ahmed Abhi	
3.0	07.04.2024	Rafid Asek	
4.0	08.04.2024	Abu Zihad	

Chapter 1
Introduction

The Bank Management System aims to provide convenient banking services to customers through automated teller machine (ATM) interfaces. Bank ATMs are now a common feature in banking, offering easy access to various financial services at any time and place. These self service machines enable users to withdraw cash, deposit cash, check balances, and conduct other transactions quickly and securely.

1.1 Purpose

To create Bank ATM System is to offer customers access to various banking functionalities, including cash deposit, cash withdrawal, balance inquiry, and account management, through ATM terminals.

1.2 Intended Audience

- Developers
- Testers
- Project Managers
- Stakeholders.

1.3 Intended Use

- **Developers:**
  Developers can use this SRS as a guideline for implementing the required features and functionalities of the Bank ATM System.

- **Testers:**
  Testers can utilize this SRS to conduct structured testing procedures to ensure that the system meets the specified requirements.

- **Project Managers:**
  Project managers can use this SRS to track project progress and ensure that development activities align with the outlined requirements.

- **Stakeholders:**
  Stakeholders can refer to this SRS to understand the scope and functionality of the Bank ATM System and provide feedback during the development process.

1.4 Product Scope

The Bank ATM System aims to provide a comprehensive set of banking services to customers through automated teller machine (ATM) terminals. The scope of the Bank ATM System encompasses the following features and functionalities.

- User can withdraw cash from their accounts using the ATM interface.
- User can deposit cash or checks into their accounts via the ATM
- User can check their account balances through the ATM.
- User can request and receive printed or electronic account statements.
- Users have the option to print receipts for transactions conducted at the ATM.

- The system ensures secure authentication using unique PIN.
- The ATM terminals are designed to comply with accessibility standards to cater to users with diverse needs.

1.5 Risk Definition

The Bank ATM System is susceptible to various risks.

- Unstable network connections may disrupt communication between ATM terminals and the bank's servers.
- Transaction failures or delays may occur, leading to customer dissatisfaction and inconvenience.
- Potential security breaches, such as unauthorized access to customer accounts or ATM hardware tampering.
- Compromise of customer data, financial losses, and damage to the bank's reputation.
- Malfunctions or failures of ATM hardware components, such as card readers or cash dispensers.
- Failure to comply with regulatory requirements and standards in the banking industry.

Chapter 2

Overall Description

We are going to build a new web-based Bank ATM System to offer convenient banking services to customers. This platform will provide easy access to various financial transactions like cash withdrawals, deposits, balance inquiries, and account statements. Our goal is to build a user-friendly system from scratch, using modern technology to enhance accessibility and efficiency in banking.

2.1 User Classes and Characteristics

Our web-based Bank ATM System is tailored to meet the diverse needs of individuals seeking convenient banking services. With a focus on user-friendliness, our platform welcomes users from all walks of life, ensuring accessibility for everyone, especially during critical situations.

- Bank customers using the ATM for transactions.
- Employees managing operations and providing support.
- Authorized Responsible for ATM settings and maintenance.

2.2 User Needs

The Bank ATM System caters to distinct user groups with specific requirements. Customers require access to basic banking services, including cash withdrawals, fund deposits, balance inquiries, and account statements. Bank staff need tools to monitor ATM usage, address customer queries, and troubleshoot system issues efficiently. Administrators require administrative privileges to manage ATM configurations, user accounts, transaction limits, and security settings.

2.3 Operating Environment

The operating environment for the Bank ATM System is listed below.

- Operating system: Any kind of OS which supports browsing.
- Database: MySql.
- Platform: Java, Java Swing and AWT Framework.

2.4 Constraints

- We have to develop the application in Java language.
- The developed system must work in the customer's operating environment, which is Windows.
- We have to finish the project within 2 months.

2.5 Assumptions

- Users can read and write English.
- Users have devices that support internet service.
- Users have an internet connection.
- Users are familiar with web browsing and can interact with websites.
- Users understand how to operate an ATM interface.
- Users have valid account credentials provided by the bank.
- The system meets accessibility standards for users with physical disabilities

Chapter 3

Requirements

3.1 Functional Requirements

1. **As a user**
   I want to sign-in.

   Confirmation
   Users should be able to sign in using their Card number and PIN.

2. **As a** user
   I want to recover the password.

   Confirmation
   Provide a feature for users to recover their PIN through a secure process, such as email verification or security questions.

3. **As a** user
   I want to inquire about my Balance.

   Confirmation
   Users should be able to check their account balance.

4. **As a** user
   I want to deposit funds.

   Confirmation
   Allow users to deposit money into their accounts.

5. **As a** user
   I want to Withdraw Funds.

   Confirmation
   Users should be able to withdraw money from their account, subject to available balance.

6. **As a** user
   I want to View Monthly Bank Statement.

   Confirmation
   Users should be able to view their transaction history for a specific month.

7. **As a** user
   I want proper input validation and see clear error message.

   Confirmation
   Validate user inputs to prevent errors and malicious inputs and provide clear and informative error messages for users in case of invalid actions or system errors.

3.2 Non-Functional Requirements

Performance Requirements:

- Ensure response time meets user expectations.
- Design for scalability to accommodate a large number of users and transactions.

Security:

- Utilize strong encryption algorithms for data protection.
- Enforce strict access controls to prevent unauthorized access.

Usability:

- Design an intuitive user interface for ease of navigation.

Compatibility:

- Support multiple platforms and web browsers.
- Ensure compatibility with MySQL database versions.

Appendices

Appendix A

Glossary

SRS: A software requirements specification (SRS) is a description of a software system to be developed. The software requirements specification lays out functional and non-functional requirements, and it may include a set of use cases that describe user interactions that the software must provide to the user for perfect interaction.

PIN: A PIN (Personal Identification Number) is a numeric code used to authenticate and authorize access to secure systems or accounts.