Software Requirements Specification

for

ATM System

Version 1.0 approved

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1 Introduction

1.1 Purpose/Objective

This SRS describe the software requirements specifications for ATM (automated teller machine network. The system aims to provide a convenient and secure platform for customer to perform banking transactions

1.2 Document Conventions (Definition, Acronyms, Abbreviations)

Font with formal range of units in Microsoft word Document, Terms and clauses in italic style will have greater prominence in sentence. "()" parentheses will simplify the meaning having inside them for your easiness

1.3 Scope

Prioritized Sections are below Developers: Section 3 and 4 are more emphasized over section 5. Project Managers: look over timing constraints on analyzing this complete SRS Marketing Staff: Section 5.5 Users: should have to study carefully section 2.6(User Documentation) Testers: would only study section 2.4(Operating Environment)

1.4 References

Various banking systems and ATM services

2 History/Background Study (Sources of Domain Knowledge)

2.1 Technical Literature

Extensive research on ATM and online banking systems. This includes studying academic papers, industry journals, and books.

2.2 Existing Applications

Analysis was conducted on existing ATM applications deployed by various banks and financial institutions. This involved studying the features, functionalities, and user interface of different ATMs, to get insights on best practices and identify potential security issues.

2.3 Customer Surveys

N/A

2.4 Expert Advice

N/A

2.5 Current/Future requirements

Make UPI (Unified Payment Interface) payments using phone number and UPI PIN.

3 Overall Description

3.1 Product Functions

3.1.1 Hardware Requirement

- Display Screen
- Touchpad
- Keyboard
- Card reader
- Card Dispenser
- Receipt Output
- Cash Output
- Deposit Slot

3.1.2 Software Requirement

- Operating System
- User Interface
- Security
- Protection
- Transaction
- Balance calculation
- Receipt Generator

3.2 Functional Requirements

3.2.1 New User

3.2.1.1 Input

- Card Insert
- Enter account number
- Enter phone number
- Enter OTP (One Time Password)
- Enter New PIN (Personal Identification N umber)

3.2.1.2 Output

- Display account created successfully

3.2.1.3 Error

- Incorrect OTP

3.2.2 Existing User Login

3.2.2.1 Input

- Card Insert
- Enter PIN

3.2.2.2 Output

- Display account details

3.2.2.3 Error

- Invalid PIN

3.2.3 User Authentication

3.2.3.1 Input

- PIN / Biometric verification
- Limit for inserting incorrect PIN

3.2.4 Cash Withdrawal

3.2.4.1 Input

- Enter amount
- Select Denominations
- Calculate balance after withdrawal
- Give receipt

3.2.5 Cash Deposit

3.2.5.1 Input

- Keep amount in deposit slot
- Calculate current balance

3.2.6 Account Management

3.2.6.1 Input

- Enter old PIN
- Enter new PIN
- Enter old phone number
- Enter new phone number
- Enter OTP after inserting new phone number / PIN

3.2.6.2 Output

- Display successful change

3.2.6.3 Error

- Incorrect OTP

3.2.7 Transaction receipt

- At the end of all transactions give receipt

3.2.8 System Security

- Block card temporarily if incorrect PIN insertion exceeds the limit

3.3 Non-Functional Requirements

3.3.1 Correctness Requirement

- Correct PIN should be inserted

3.3.2 Portability requirement

- Software should work in ATMs of all branches

3.3.3 Efficiency Requirement

- Good connectivity with the bank network

3.3.4 Usability Requirement

- Easy interface for use

3.3.5 Reusability Requirement

- Should work efficiently during frequent use

3.3.6 Reliability Requirement

- Speed should be moderate and cater to correct account management

3.3.7 Maintainability Requirement

- The ATM box should be tightly inserted so that theft can be prevented
- Software should be checked and updated as and when required

3.3.8 User Characteristics

- Customer enlisted under the bank

3.4 Design & Implementation Constraints

- Easy to use and understandable

3.5 Assumptions & Dependencies

- Bank database is maintained correctly by the administration

4 Interface Requirements

4.1 User Interfaces

- Simplified view
- Show correct details
- No text overflow in the screen

4.2 Hardware Interfaces

- Touchpad should be responsive
- Keyboard buttons have numbers from 0 to 9 ,

4.3 Software Interfaces

- Good throughput

4.4 Communication Interfaces

- Voice assistant

5 Conclusion

Therefore, this SRS describe the software requirements specifications for ATM (automated teller machine network and the system aims to provide a convenient and secure platform for customer to perform banking transactions