

Software Requirements Specification (SRS)

ATM Machine

1. Introduction

1.1 Purpose

This document describes the requirements for an ATM Machine System. It explains how customers, bank staff, and technicians interact with the system. The goal is to make ATM transactions secure, fast, and easy.

1.2 Scope

The ATM Machine System allows customers to perform banking tasks like withdrawing cash, depositing money, transferring funds, and printing receipts. It also supports bank staff in monitoring transactions and technicians in maintaining the machine.

1.3 Definitions

- **ATM:** Automated Teller Machine
- **Customer:** Person using the ATM for banking
- **Bank System:** Backend system that verifies and processes transactions
- **Bank Admin:** Staff who monitor and report on ATM activity
- **Technician:** Person who maintains and refills the ATM

2. Overall Description

2.1 Product Perspective

The ATM is part of the bank's larger system. It connects to the bank's database to verify PINs, update balances, and authorize transactions.

2.2 Product Functions

- Accept card and PIN
- Authenticate user
- Allow cash withdrawal, deposit, and fund transfer
- Print transaction receipt
- Update account balance
- Authorize transactions
- Monitor and report transactions

- Maintain and refill ATM

2.3 User Characteristics

- **Customers:** Basic banking knowledge
- **Bank Admins:** Trained in monitoring and reporting
- **Technicians:** Skilled in ATM hardware and software

2.4 Constraints

- Must connect securely to the bank system
- Must follow banking regulations
- Must work 24/7 with minimal downtime

3. Specific Requirements

3.1 Functional Requirements

- **Enter Card:** System reads card data
- **Enter PIN:** System asks for and verifies PIN
- **Authentication:** System checks PIN with bank
- **Cash Withdrawal:** Customer selects amount, system checks balance, dispenses cash
- **Perform Transaction:** Includes deposit and fund transfer
- **Transfer Funds:** Move money between accounts
- **Deposit:** Add money to account
- **Print Receipt:** Show transaction details
- **Update Balance:** Adjust account after transaction
- **Authorize Transaction:** Bank system approves or denies
- **Monitor Transaction:** Admin checks activity logs
- **Generate Report:** Admin creates summaries
- **Maintain ATM Machine:** Technician checks and fixes issues
- **Refill Cash:** Technician adds money to ATM

3.2 Performance Requirements

- Response time: Less than 5 seconds for each action
- Uptime: 99.9% availability

- Capacity: Handle 1000+ transactions per day

3.3 Security Requirements

- Encrypt PIN and transaction data
- Lock account after 3 wrong PIN attempts
- Log all actions for audit

4. Appendices

4.1 Assumptions

- Users have valid bank accounts
- ATM is connected to the bank system
- Technicians have access credentials

4.2 Future Enhancements

- Biometric authentication
 - Mobile app integration
 - Voice-guided transactions
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