Banking Java Application
Requirements Specification

Github-Repository: https://github.com/SalimanSherzad/Group6-BankApp

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Revision History

Date	Revision	Description	Author
09/12/2023	1.0	Start Templates	Saliman Sherzad
09/20/2023	1.1	Added more content	Saliman Sherzad
10/03/2023	1.2	Added more requirements	Terry Tek
10/03/2023	1.2.1	Formatting fixes	Terry Tek
10/05/2023	1.2.2	Added more reqs	Saliman Sherzad

Table of Contents

1. Purpose

This document outlines the Requirements for our Java Banking application

1.1 Scope

This document will catalog the user, system, and hardware requirements for the Banking application system. It will not, however, document how these requirements will be implemented

1.2 Definitions, Acronyms, Abbreviations

Teller- is a user/bank employee that has the ability to locate customer user accounts. They can deposit or withdraw money into accounts

Banker- can create user accounts for customers which include account ids and debit cards

ATM - an interface for customers to input their account info to deposit or withdraw money

BA in the UML refers to Bank Account class

CA in the UML refers to Customer Account class

1.3 References

Use Case specification document Bank Uml use case specification document

UML use case diagram:
https://app.diagrams.net/#G17q_CR-_IacA9F1hqnXmD0VcCNMnAFpHL

Class Diagrams:
:https://app.diagrams.net/#G1ChXtFQuTLAzV2koGS7PfFoTEl7IGrug6

1.4 Overview

The Money Spreader Banking System, is designed to provide an interface for authorized bank employees to assist customers with additional services like an ATM section and other banking services like deleting a card or requesting a new one.

2. Overall Description

2.1. Product Perspective

The system will be organized into 3 major modules: the user management module, ATM module and the user/system functional module. Note: System architecture should follow standard OO design practices.

2.2 Product Functionality/Features

The high-level features of the system are as follows (see section 3 of this document for more detailed requirements that address these features):

2.3 Constraints

- 2.3.1 The customer will not be able to view the tasks of the teller
- 2.3.2 The customer can only use the interface with a user account created
- 2.3.3 The customer can access their bank account only with a username and PIN
- 2.3.4 The teller can only withdraw and deposit money on behalf of a customer from their bank account
- 2.3.5 The bank can only create a bank account for a customer, assuming they already have a user account.

2.4 Dependencies

- 2.4.1 The system will run on a system that allows creation of a GUI for the customer and teller to interact with
- 2.4.2 The customer can create a bank account only if they have a user account in the system
- 2.4.3 There will be a teller and banker level to interact with a customer's bank account

3. Specific Requirements

3.1 Functional Requirements

3.1.1 Common Requirements

3.1.1.1 There will be an interface for the banker, teller, and customer to sign into the interface and it will give the functions for the appropriate level signed in

3.1.2 User Management Module Requirements

There will be 3 types of users: one is customer, one is banker, one is teller. The teller and banker will have different abilities to help customers.

There will be a way to check which email is already in use for when a new user tries to sign up.

Tellers and Bankers must have employee ids while customers must have a customer id

Users can sign up and login with credentials: Email, Password, id just for employee

3.1.3 User/System Functional Module Requirements

User must have account to use anything, if no account they must sign up

Bankers can create bank accounts for customer users

Bankers can delete bank accounts for customer and make new debit cards

Customer Accounts can only hold 10 bank accounts

Tellers can locate customer accounts and deposit money for them or withdraw

Each account will keep a log its actions in a list that can be viewed like withdrew 40 dollars or deposited 100 dollars

3.1.4 ATM Module Requirements

This will be an interface for customers to work like an ATM

Through this module a customer will sign in as their user account and locate their account or accounts(there could be multiple) and select which one to work with

Customer must enter a pin number for the bank account to use its services

Customer can deposit money or withdraw money from accounts

3.2 External Interface Requirements

3.2.1 The system will interact with a physical ATM machine without a human teller for customers to interact with

3.2.2 The ATM should be able to open up the money drawer when a user provides their username and PIN and requests a money deposit/withdrawal.

3.2.3 The teller must be able to sign in with their teller-level credentials to access their control panel which allows use of their functions for customers

3.3 Internal InterFace Requirements

3.3.1 The system should be able to wait for a customer to enter their credentials (username or debit card and PIN) and once the system authenticates, it will give the customer the functions that a customer can access.

3.3.2 The system can also wait for a teller to enter their credentials and authenticate a teller, giving the teller their full range of functions available.

3.3.3 The system can also wait for a banker to enter their credentials and authenticate a teller, giving the teller their full range of functions available.

4. Non-Functional Requirements

4.1 Security and Privacy Requirements

4.1.1 Each customer will have a different username and PIN, with no two people having the same credentials or access to one another's account.
4.1.2 The teller can only access a customer's bank account balance, not a customer's user account credentials.
4.1.3 The customer cannot delete a card or an account by themselves; they can send a request to the Banker to delete the card or account on their behalf.
4.1.4 The Banker can only see account details of a customer, and can only add/delete accounts or debit cards; the Banker has no ability to withdraw/deposit money like the Teller can.