

SOFTWARE REQUIREMENTS SPECIFICATIONS DOCUMENT

OF

BANKING SYSTEM

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The ***BankMan*** Systems
Requirements Document

Revision History

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1. Introduction

1.1 Need and Purpose

In present times, all major economic transactions have started taking place digitally. The major trends of modern digital transactions is substantiated by use of database management. These databases can be accessed by anyone with specific rights, and perform certain actions on it. The data update is done almost automatically and is much faster.

Users can, in present days can access their accounts directly without going to a bank, making transfers, transactions and accessing cash directly without standing in long queues as was prevalent earlier using ATM machines.

On employee-side the data is much more organized, and accessing and performing actions on user accounts is easier for them. Due to this the bank has better work efficiency and customer experience improves as well.

1.2 Intended Audience

This SRS would be used by the following persons :

Bank Employees : They would be using the EWS to perform the various banking functionalities.

Research Students : Research students are advised to read all the sections of this document to get an overall idea of the work-flow and technicalities of the software.

Testers : It can be used as a documentation to know the interfaces.

1.3 References

Internet Sources:

- [1] www.mysql.com
- [2] www.php.net
- [3] www.apache.org
- [4] www.stackoverflow.com

Books Referred :

- [5] *Fundamentals of Database Systems, Sixth edition* By Elmasri, Navathe.
- [6] *Practical PHP and MySQL* By Jono Bacon.
- [7] *PHP and MySQL Web Development Third Edition*, By Luke Welling Laura Thomson
- [8] *MySQL Building User Interfaces*, By Matthew Stucky, New Riders Publishing
- [9] *Build Your Own Database-Driven Website Using PHP & MySQL* by Kevin Yank

1.4 Overview of Document

The first section of SRS gives a brief introduction on BankMan banking system. This section also provides the reference information for further study, intended audience and need & purpose of the product.

The second section provides an overall description of the application, product features & functions, users and operating environment(hardware, software and external).

The third section is about the specific requirements like external interfaces, performance requirements, design constraints and additional comments.

The Appendix section has definitions of some notations used in the document.

2. Description

2.1 Features and Functions

Features

BankMan (Bank Management System) can be used by Bank Employees and/or Customers depending on bank policy. It can be used by several employees of the bank at the same time with required rights. It can be accessed using any general web browser with graphical interface .

Our Product consists mainly of two parts i.e. the **Employee Work-Space (EWS)** and the **ATM-Banking**. The EWS would deal with the internal banking functions like new account registration, withdrawal, deposit, money transfer etc. The ATM banking would be for direct access of customers, who could use it for Cash-Withdrawal, Transfers and Account-Summary.

Both of them connect to a main database server for storing and retrieving the data of the customers.

Functions:

EWS requires employee login. It handles following

1. New Customer Registration
2. Transactions
 - a. Detail Updation
 - b. Deposit
 - i. Cheque
 - ii. Cash
 - c. Debit
 - d. Transfer
 - e. Account Summary

ATM transaction requires ATM No. and PIN that will be available to Bank's customer. It doesn't require Employee login.

It performs following

1. Cash withdrawal
2. Transfer
3. Account Summary

2.2 Users classes and Characteristics

Bank Front-end Employees : The Bank Employees would be the main users of the BankMan Systems. They may perform banking functions using EWS or may facilitate customer in using ATM, as per bank's policy.

Bank Customers : The customers would be able to use ATM-Login, if bank wants to provide user with direct access, otherwise they may use ATM via. Bank Employee.

2.3 Operating Environment

2.3.1 Hardware

BankMan requires an entry-level PC for smaller number of bank accounts (like, when data is being stored locally). For larger no. of bank accounts, a server class machine is recommended.

2.3.2 Software

The *BankMan* server can run on any recent version of Linux, such as Ubuntu, Debian, Fedora Core, Redhat Enterprise, etc. It requires:

1. Apache 4.5 or later
2. Tomcat 5.6 or later
3. PHP 5.6

The *BankMan* user-interface works with any of the following graphical browsers on any hardware and OS:

1. Firefox 5.0
2. Internet Explorer 7.2
3. Chrome 2.0
4. Opera 2.3

Higher versions of these browsers are likely to work but cannot be guaranteed. With update of HTML, the interface may get deformed, so it is recommended the BankMan software be updated on a regular basis.

2.3.3 External

The banking systems like BankMan requires 24-hr electricity supply and communications for data update to be timely. Democratic and free society is recommended but can work equally well for corrupt regimes.

3. Specific Requirements

3.1 Performance Requirements

Database can store details of up to about a Hundred Thousand accounts, but that can vary according to Bank's need, and would depend on data storage capacity of server and not on database.

The response time depends on size of database due to searching process, but still the response by server will be just the time to search, as it would be accessed from specific devices in the bank and there is no system for accessing it online.

3.2 Design Constraints

- Enhancements to the security features might lead to performance overhead.
- Central Server should be on-line round the clock.

3.3 Overview of Data Requirements

The product is completely data oriented.

In EWS, the employees would input the various details of Customer for updating, processing or retrieval of data and for new customers, required fields for registration will be filled.

In ATM-Banking, the users would input less amount of data (only ATM number and pin) and be able to have faster cash-withdrawal and transfer money to other accounts.

3.4 Additional Comments

This document describes a MySQL and PHP based application, for purpose of implementing a Bank Management System, for a B. Tech. 2nd Year 3rd Semester project under the course CS-207 Applied Database Practicum at Indian Institute of Technology, Mandi, Himachal Pradesh, India, in academic year of 2014.

This document describes a fictitious software product purely for the above mentioned academic purpose. It is not related in any way to a particular existing or proposed real product.

This document doesn't guarantee the implementation to be secure, efficient or error-free.

Appendix A

The notations being used in the documents are mentioned below:

BankMan (*Bank Management System*) Name of the product being described by this document.

EWS (*Employee Work-Space*) An integral part of the BankMan Systems, accessible only after employee login.

Transaction It is a part of EWS that allows performing banking functions for existing customers.

Transfer Money transfer function, for transferring money from one customer account in bank to other.