Hacettepe University
Department of Computer Engineering
BBM478 - Software Engineering Laboratory

Project Vision Document

Group One

Ahmed Şamil BÜLBÜL (21426749, Software Analyst)
Halil İbrahim ŞENER (21328447, Software Architect)
Naciye GÜZEL (21580841, Project Manager)

Library Book Loan System
Vision

1.   Introduction

The main purpose of this document is to gather significant information about Library Book Loan System (LBLS) which provides an efficient library book loaning system to customers and librarians. It concentrates on functionalities and capabilities of the system acquired from stakeholders. This document has these titles which are Positioning, Stakeholder Descriptions, Product Overview and Other Product Requirements.

This document applies to Library Book Loan System. This LBLS will be developed by Group One Software. This application will be developed as a desktop application. LBLS will provide faster and more efficient access to customers, better management and organized library system to librarians.

Manual library transactions usually require more effort and time. Even simply searching for books requires going to the library. The traditional system cannot provide simple solutions for simple actions. The project aims to bring overall simplicity to the library system.

2.   Positioning

Libraries have to be organized and well managed. As they get larger, monitoring them gets harder. To avoid conflicts and make the system more efficient, LBLS will provide some capabilities and functionalities.

2.1   Problem Statement

The problem of	automatization of some manual library operations
affects	people that work at the library and use the library
the impact of which is	difficulty searching the books and difficulty checking a book being available
a successful solution would be	a user-friendly system for the customers and librarians. The system would provide faster and more efficient access to customers. The final product should also provide better management and organized library system to librarians.

2.2   Product Position Statement

For	people that use the library such as students and library staff
Who	need a more efficient system.
The Library Book Loan System	is a software application
That	provides operations more effectively
Unlike	manual library systems that have slow and demanding library operations

Our product	provides fast acquirements, easy transactions, online activity records and other functionalities to make the system better.

3. Stakeholder Descriptions

3.1 Stakeholder Summary

Name	Description	Responsibilities
Instructors	This stakeholder is the person in charge who provides project to project groups.	Determines outline of the project, provides main constraints and some of the requirements. Guides other stakeholders throughout the project.
Teaching Assistants	This stakeholder monitors processes.	Monitors and guides project throughout the process. Provides consultancy. Makes reviews about the project.
Project Manager	This stakeholder has the job of managing of the LBLS project.	Lead the planning, provide direction, support to the team of members project, big picture vision, to decide, terminating the project, viewing and analyzing risks, contacting with the customer.
Software Analyst	This stakeholder determines and sets priorities of the requirements.	Determines requirements, needs. Prepares specifications and makes a specific analysis about the project.
Software Architect	This stakeholder has the job of high-level design choices and dictates technical standards of the LBLS project.	Responsible for decisions about system organization, structural elements of the system and their interactions with each other, the system overall architecture.
Software Developer	This stakeholder has the job for developing software components of the LBLS.	Responsible for programming with respect to design and restrictions. Contributes to software development process in design, research, and testing.
Tester	This stakeholder has the job for testing and verifying software components of the LBLS.	Responsible for testing and verifying software components and the final product. Contributes to software development process in verification.
Customer	Primary end user of the LBLS.	Uses the developed system to search for books, loan a book, view owned books and other book-related actions.
Librarian	Primary end user of the LBLS.	Uses the developed system to manage books and customers.

3.2 User Environment

1. The Library Book Loan System application will be used by people as explained below:

     a. Customers
     b. Librarians
2. Customers will have more advantages than doing transactions one-to-one:
     a. Decreases the time for people who has got problems to access libraries.
     b. Gives better control over return dates of books.
3. The application shall provide a graphical user interface for users to accomplish actions easier.
     a. Librarians and customers will have different views.
4. The number of people needed to complete transactions will be decreased since it is online.
5. The amount of time spent in activity will be decreased because of:
     a. Online actions
     b. Reduced amount of errand
6. It is a desktop application requires connection to the database of the library.
7. Librarians shall be provided overall access over the system.
8. Customers shall be provided basic actions that they can do in any library manually:
     a. Book reservations and associated actions.

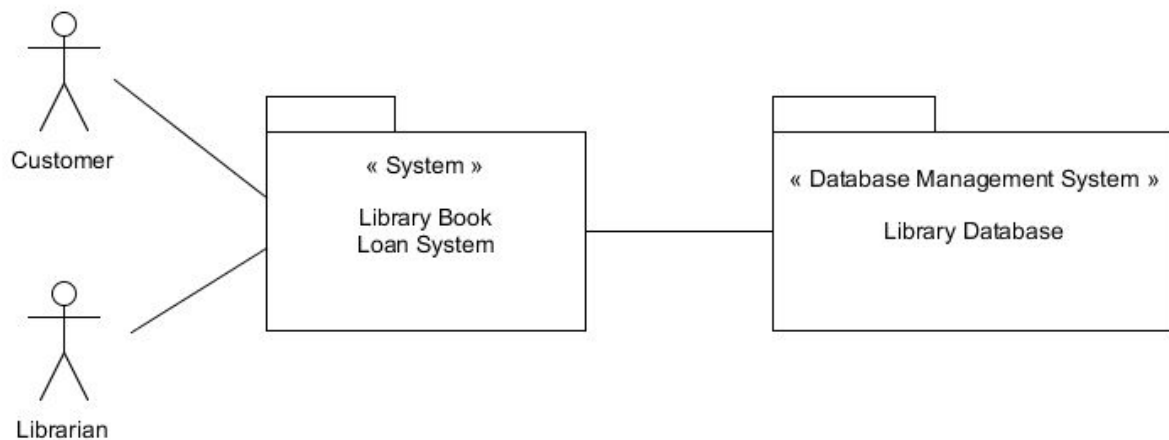Following shows context diagram of Library Book Loan System.

Figure 1: Context Diagram of Library Book Loan System

4. Product Overview

4.1 Needs and Features

We are provided 12 use-cases. On the basis of this, the generalized needs and features (and use-cases) are given below:

Need	Priority	Features	Planned Release
Login/Logout	High	Login/Logout System	Release 1
Manipulate Book	High	Create, Read, Update, Delete (CRUD) Book Operations that are performed by the librarians.	Release 2
Manipulate Customer	High	Create, Read, Update, Delete (CRUD) Customer Operations that are performed by the librarians.	Release 2
Search for Books	High	Users will have the ability to search for books.	Release 2
Book Management	High	The user shall be able to self-checkout, self-return and view his/her books.	Release 2
Fine Management	High	The system shall be able to issue a fine and informs the customer for late returns. The customer shall be able to pay the fine.	Release 3
Waiting List	High	The waiting list shall provide better book reservation system. The user shall be able to add a book his/her waiting list and is notified of the book being available.	Release 3
Responsive	Medium	Fast application and connections	Release 3
Security	Medium	Using secure database connection and encryption	Release 3

Installability	Medium	Using Java to be able to run the application in different operating systems.	Release 3

5.   Other Product Requirements

Requirement	Priority	Planned Release
System Requirements	High	Release 1
Performance	Medium	Release 3
Robustness	Medium	Release 3
Usability	High	Release 2
Maintainability	High	Release 3
Availability	High	Release 3

5.1   System Requirements
This application requires a computer that can run Java applications.

5.2   Performance
Transactions in the application should be completed in a reasonable amount of time.

5.3   Robustness
The application shall provide enough functionality under any condition.

5.4   Usability
The application shall provide satisfaction, effectiveness, and efficiency to users.

5.5   Maintainability
Planning and developing the application in Java and using object oriented programming effectively will provide maintainable code.

5.6   Availability
Users of this application shall use this application on any desktop environment.

5.7   External Constraints
This application requires connection to the database of the library.