HACETTEPE UNIVERSITY

DEPARTMENT OF COMPUTER ENGINEERING

BBM 487 SOFTWARE ENGINEERING LAB

SOFTWARE VISION

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Library Book Loan System(LBLS)
Vision

1. Introduction

As the purpose of preparing this document -considering the name **Vision**- is to give a precise information about the unknowns of our project such as a deep description of our problem with as much detail as possible by stating everything that will enable the reader have a basic idea of the product, stakeholder summary, user environment and a deeper description of the basic requirements. This document shapes the basis of our project and our future work since we define the basic processes here. Throughout semester, we may make changes, updates and required improvements when needed according to the level of satisfaction from the obtained results.

2. Positioning

2.1 Problem Statement

The problem of	***Constructing a library system which will have the capability of searching and loaning books, adding members, manipulating books.***
affects	***Librarians and the school members***
the impact of which is	***Enables the students(and other school members) to have access to the whole content of a library, reduces the labor for the library employees.***
a successful solution would be	***A successful search for a particular book/author*** ***Listing all of the borrowed books of a user*** ***Reserving a particular book*** ***Adding new books to the system***

2.2 Product Position Statement

For	***Libraries- (Library Employees, Students, Scholars)***
Who	***Using a user-friendly and practical system which will enable the user to do the basic operations without too much work load.***
The (product name)	***Library Book Loan System (LBLS)***
That	***Provides every single operation you might need to do in a library system without holding the user for a long time***
Unlike	***The current complicated and non-user friendly systems which confuse the users' mind.***
Our product	***Provides a smooth interface to do every single operation such as manipulating books, reserving a book, displaying various kinds of information when needed and so on.***

Stakeholder Descriptions

2.3 Stakeholder Summary

Name	Description	Responsibilities
Library employee	***The person who has access to the part of the system that a new member or a new book can be added, deleted or edited***	***Adding, deleting or editing any kind of data such as the information about the members and books. Manipulating every single data loaded on the system.***
Library Member (Student/Scholar)	***The person who has access to the library system in order to borrow, return, search for a book.***	***Searching for a particular book*** ***Borrowing a book*** ***Returning a previously borrowed book***
System administrator	***When the library employee or the library member encounters a problem which cannot be solved by the member and employee, the required improvements and the solution will come from the administrator***	***Solving the problems which cannot be solved by a librarian or student/scholar*** ***Adding new librarians to the system, giving them access to the related part of the system when needed***

2.4 User Environment

Number of people involved in completing a particular task

This number depends on the related task. For the maintenance of the system and basic operations, there has to be an authorized user(in our case, it is the library employee), one person who has the capability of reaching the deeper system features in order to fix any kind of a system problem when needed(in our case, it is the system administrator). For various operations such as adding, deleting a book from the system, these two roles have a vital importance. In addition, to return a book, there has to be a member(in our case a scholar or a student) in order to do this operation. So the number of people involved in completing a particular task depends on the current operations that is being made.

Amount of time spent in each activity

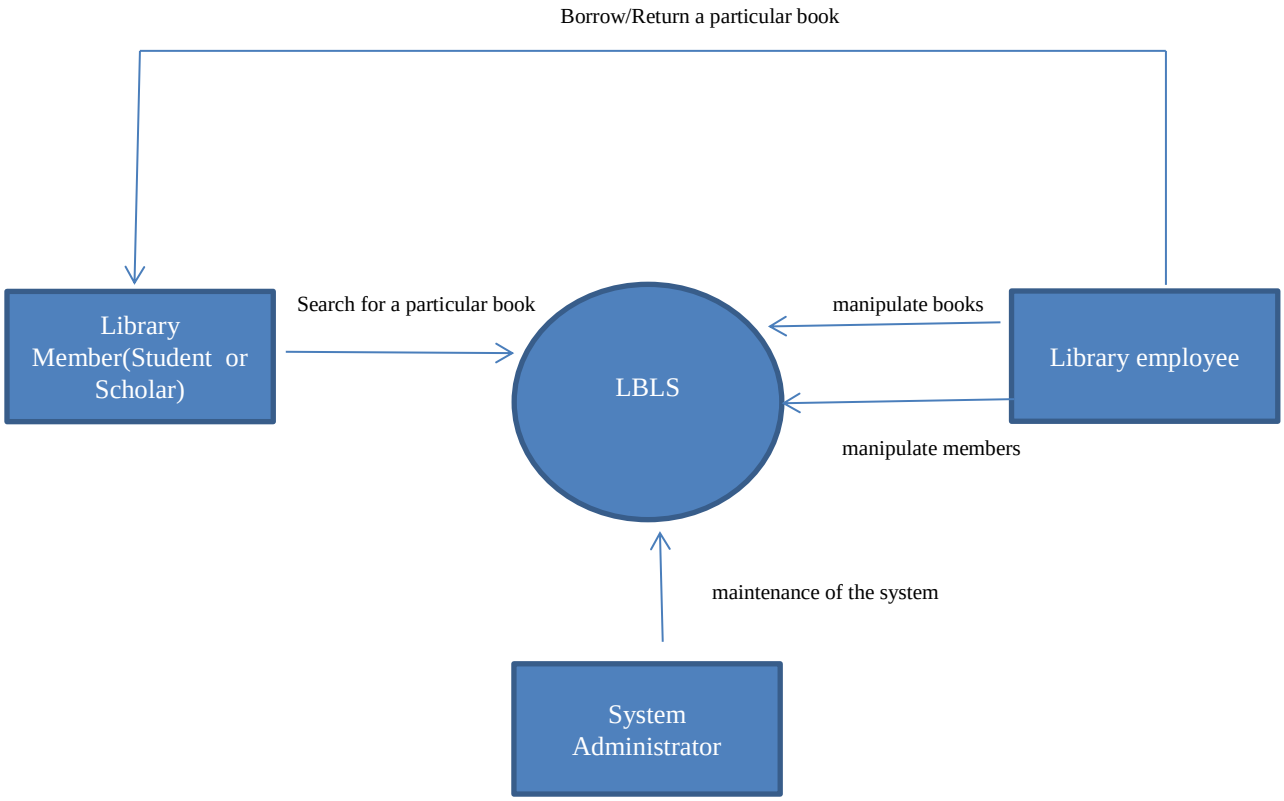
Every single information needed in this system can be reached easily. The search can be done easily by typing the name of the book and the system shows the results quickly. The system notifies the user whether the searched book is borrowed before from another user. The library employee has the same advantage about speed since they will be able to list any kind of data immediately with just a couple of clicks. The time needed for the operations will be shortened as much as possible- at most a few minutes depending on the amount of data trying to be reached. Depending on the user's system, there might be possible delays.

System Platform, dependence on the other applications

LBLS is going to be a web application, therefore the only need of the user is to have a standard computer. There will not be any kind of an additional requirement for the system. There is not an application that the system depends on in order to work accurately. Therefore, there is not an integration problem.

Context Diagram

The following context diagram shows our diagram that defines a high level view of the system that we are planning to construct:



3. Product Overview

3.1 Needs and Features

Need	Priority	Features	Planned Release
Managing the Account of the Library Employee	1	Adding, deleting or editing the data related to the library employees	Architectural Demo(1.0) (Release-1)
Managing the Account of the Library Member(Student or	1	Adding, deleting or editing the	Architectural Demo(1.0)

Scholar)		data related to the library members	(Release-1)
Managing the Books	2	Adding, deleting the books or editing a part of the information about a particular book	Architectural Demo(1.0) (Release-1)
Managing the Book-Search Operation	2	Listing the books that matches with the entry of the user	Architectural Demo(2.0) (Release-2)
Managing the Book-Borrow Operation	2	Borrowing the available books and stating this operation on the system	Architectural Demo(2.0) (Release-2)
Managing the Book-Return Operation	2	Returning a previously borrowed book and stating this operation on the system	Architectural Demo(2.0) (Release-2)

4. Other Product Requirements

Requirement	**Priority**	**Planned Release**
A proper system for implementation	1	Architectural Demo(1.0) (Release-1)
A database to hold the related data	1	Architectural Demo(1.0) (Release-1)
A smooth and easy-to-use interface	2	Final Software Product Delivery (Release-3)
An accurate testing process	2	Final Software Product Delivery (Release-3)