Institute of Information Technology

Jahangirnagar University

LAB Exercise 2: Library Management System Software Requirements Specification
Version <1.0>

Software Engineering Lab Exercise Report Submitted By:

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Software Requirements Specification

1. Introduction

The introduction of the Software Requirements Specification (SRS) provides an overview of the entire SRS with purpose, scope, definitions, acronyms, abbreviations, references and overview of the SRS. The aim of this document is to gather and analyze and give an in-depth insight of the complete Jahangirnagar University by defining the problem statement in detail. Nevertheless, it also concentrates on the capabilities required by stakeholders and their needs while defining high-level product features. The detailed requirements of the Jahangirnagar University are provided in this document.

1.1 Purpose

The purpose of the document is to collect and analyze all assorted ideas that have come up to define the system, its requirements with respect to consumers. Also, we shall predict and sort out how we hope this product will be used in order to gain a better understanding of the project, outline concepts that may be developed later, and document ideas that are being considered, but may be discarded as the product develops.

In short, the purpose of this SRS document is to provide a detailed overview of our software product, its parameters and goals. This document describes the project's target audience and its user interface, hardware and software requirements. It defines how our client, team and audience see the product and its functionality. Nonetheless, it helps any designer and developer to assist in software delivery lifecycle (SDLC) processes.

1.2 Scope

Primarily, the scope pertains to the Library Management System features for making Jahangirnagar University project live. It focuses on the students, the staff and online notice system.

This SRS is also aimed at specifying requirements of software to be developed but it can also be applied to assist in the selection of in-house and commercial software products. The standard can be used to create software requirements specifications directly or can be used as a model for defining a organization or project specific standard. It does not identify any specific method, nomenclature or tool for preparing an SRS.

1.3 Definitions, Acronyms, and Abbreviations

Configuration	It means a product which is available / Selected from a catalogue can be customized.
FAQ	Frequently Asked Questions

CRM	Customer Relationship Management
RAID 5	Redundant Array of Inexpensive Disk/Drives

1.4 Overview

The remaining sections of this document provide a general description, including characteristics of the users of this project, the product's hardware, and the functional and data requirements of the product. General description of the project is discussed in section 2 of this document. Section 3 gives the functional requirements, data requirements and constraints and assumptions made while designing the E-Store. It also gives the user viewpoint of product. Section 3 also gives the specific requirements of the product. Section 3 also discusses the external interface requirements and gives detailed description of functional requirements. Section 4 is for supporting information.

2. Overall Description

This document contains the problem statement that the current system is facing which is hampering the growth opportunities of the company. It further contains a list of the stakeholders and users of the proposed solution. It also illustrates the needs and wants of the stakeholders that were identified in the brainstorming exercise as part of the requirements workshop. It further lists and briefly describes the major features and a brief description of each of the proposed system.

The following SRS contains the detail

2.1 General Description:

Product Description: Library Management System is a computerized system which helps user (librarian) to manage the library daily activity in electronic format. It reduces the risk of paper work such as file lost, file damaged and time consuming. It can help user to manage the transaction or record more effectively and timesaving.

3. System Requirements

3.1 Non Functional Requirement

3.1.1 Efficiency Requirement

When a library management system will be implemented librarian and user will easily access library as searching and book transaction will be very faster.

3.1.2 Reliability Requirement

The system should accurately performs member registration, member validation, report generation, book transaction and search

3.1.3 Usability Requirement

The system is designed for a user friendly environment so that student and staff of library can perform the various tasks easily and in an effective way.

3.1.4 Implementation Requirement

In implementing whole system it uses html in front end with php as server side scripting language which will be used for database connectivity and the backend the database part is developed using mysql.

3.1.5 Delivery Requirements

The whole system is expected to be delivered in six months of time with a weekly evaluation by the project guide.

3.2 Functional Requirements

3.2.1 User Login

Description of feature:
This feature used by the user to login into system. They are required to enter user id and password before they are allowed to enter the system. The user id and password will be verified and if invalid id is there user is allowed to not enter the system.

Functional requirements
-user id is provided when they register
-The system must only allow user with valid id and password to enter the system
-The system performs authorization process which decides what user level can access to.
-The user must be able to logout after they finished using system.

3.2.2 Register New User

Description of feature:
This feature can be performed by all users to register new user to create account.

Functional requirements
-System must be able to verify information
-System must be able to delete information if information is wrong

3.2.3 Register New Book

Description of feature:
This feature allows to add new books to the library

Functional requirements
-System must be able to verify information
-System must be able to enter number of copies into table.
- System must be able to not allow two books having same book id.

3.2.4 Search Book

Description of feature:
This feature is found in book maintenance part. We can search book based on book id, book name, publication or by author name.

Functional requirements
- System must be able to search the database based on select search type
- System must be able to filter book based on keyword entered
- System must be able to show the filtered book in table view
-System should be able to add detailed information about events.
-System should be able to display information on notice board available in the homepage of site

3.3 Software and Hardware Requirements
This section describes the software and hardware requirements of the system

3.3.1 Software Requirements
- **Operating system**- Windows 7 is used as the operating system as it is stable and supports more features and is more user friendly

- **Database MYSQL**-MYSQL is used as database as it easy to maintain and retrieve records by simple queries which are in English language which are easy to understand and easy to

write.

- **Development tools and Programming language-** HTML is used to write the whole code and develop webpages with CSS, java script for styling work and PHP for sever side scripting.

3.3.2 Hardware Requirements

- Intel core i5 2nd generation is used as a processor because it is fast than other processors and provide reliable and stable and we can run our pc for longtime. By using this processor we can keep on developing our project without any worries.
- Ram 1GB is used as it will provide fast reading and writing capabilities and will in turn support in processing.

4. Supporting Information

Please refer the following document:

1. Vision document for Library Management System.

2. Use case analysis.

3. Structural models.

4. Behavioral models.

5. Nonfunctional requirements model.

6. Traceability Matrix.

7. Project Plan