

SOFTWARE REQUIREMENTS SPECIFICATION

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1. Introduction

1.1. Product Purpose and Overview

The purpose of this document is to describe and define the system, functional, and non-functional requirements for the development of a library management system.

This site facilitates the workflow for library staff and readers. Using this system, the librarian has the opportunity to monitor his assets, and the reader can conveniently view which books are in the library

1.2. Audience suggestions

This document is intended for users, developers, testers, and documentation writers, each of whom has their own needs and uses for this site.

2. Загальний опис

2.1. Product outlook

As already mentioned, the development of the library management system is a site that will provide an opportunity to structure large volumes of books and help users search for books. Currently, there are not many such applications, since libraries in Ukraine have not yet been digitized. So, the prospects for this product may be good.

2.2. Features of the product

Below is a brief description of the site's features:

- User registration
- Adding a book (title, cover photo, author and Dewey index.)
- Displaying information about books that are available in the library
- Display of library assets
- Display of branch data
- Book rental

2.3. User characteristics

This program is intended for use by two classes of users:

- A library employee who can add a book to assets, also search for a particular book and view reader lists. This requires basic knowledge of text markup and everyday computer use.

- Readers can register on the site, view materials and rent a book. This requires basic computer skills.

2.4. Working environment

- This project will be developed on the basis of the Windows 10 x64 processor. It can also be used on other operating systems.
- No memory requirements
- Computers must be equipped with web browsers such as Google Chrome.

2.5. Limitation

The development of the library management system is not a resource system and will work on every computer. Its functions and features are non-computational. It does not require a powerful processor or graphics card or a lot of RAM.

3. Requirements for external interfaces

3.1. User interfaces

The interface should be intuitive, the number of buttons should be reduced to a minimum (only those that are necessary), the colors should be kept in one calm color scheme. Also, this software interface must be compatible with any browser, such as Internet Explorer, Google Chrome, or Safari, that the user can use to access the system.

3.2. Hardware interfaces

To run the program, you need a PC (it can be a Windows, Linux or MacOS operating system). Since this site does not require a lot of resources, the site will run on most systems without problems. Internet connection is also required.

A functional standard keyboard and mouse is required.

3.3. Communication interfaces

The development of the library management system should use the HTTP protocol for communication over the Internet, and for the internal network, communication will be carried out through the TCP / IP protocol suite

4. Use cases

- * User logs in to their account
- * User searches for a specific book
- * User views a list of books by a specific author
- * User views a list of all books in the library
- * User checks out a book
- * User returns a book
- * User renews a book loan
- * User reserves a book
- * User cancels a book reservation
- * User views their checkout history
- * User views their book loan status
- * User views their book reservation status
- * User adds a book to their "to read" list
- * User removes a book from their "to read" list
- * User marks a book as lost
- * User pays for a lost book
- * User gives feedback on a book
- * User updates their personal information
- * Admin adds a new book to the library
- * Admin removes a book from the library
- * Admin updates book information
- * Admin views user checkout history
- * Admin views book loan status
- * Admin views book reservation status
- * Admin approves a user's book reservation
- * Admin sends a notification to a user
- * Admin adds a new user account
- * Admin deactivates a user account
- * Admin views a list of all user accounts
- * Admin views a report of library activity over a specific time period