

Friday

III) library management system

Problem statement:

The current library management system lacks efficient book tracking, user management, reporting functionality, integration with digital resources, and online cataloging, hindering user accessibility. This leads to delays, errors in operations, and inefficient staff productivity. A new system is required to streamline book checkout, return processes, and inventory management while enhancing user experience.

SRS Document:

1. Introduction

1.1 Purpose of this document

This section clarifies why the SRS document is necessary. It serves as a guide for the development team, stakeholders, and anyone involved in the project, outlining the objectives and scope.

1.2 Scope of this document

Here, the overall working and main objectives of the Library Management System are described. It also outlines what value the system will provide to customers and stakeholders, along with estimates of development cost and time.

1.3 Overview

This section provides a summary of the library management system. It briefly describes what the system is about and its key functionalities.

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2. General Description:

This section provides a broad overview of the library management system, including its general functions, objectives, user characteristics, features and benefits. It sets the stage for a deeper understanding of the system.

3. Functional Requirements

Functional requirements describe the specific functions / capabilities that the library management system must perform. This includes actions such as cataloging books, managing users, handling circulation transactions, and generating reports. These requirements are listed in a ranked order, prioritizing them based on their importance to the system's functionality.

4. Interface Requirement

This mentions how the Library Management System communicates with users, other software systems, and external devices. This includes both user interfaces (UI) for interacting with the system and system interfaces for integration with external databases and hardware like barcode scanners.

5. Performance Requirement

This specifies how the Library Management System should perform under various conditions. This includes factors such as response time, scalability, and system reliability.

For example, the system should respond quickly to user queries and be able to handle a large volume of user and library resources without crashing.

6. Design Constraints

They outline any limitations or restrictions that the development team must adhere to when designing the Library Management System. This could include platform compatibility requirements, hardware limitations, or constraints imposed by external standards / regulations.

7. Non-functional Attributes

These are qualities / characteristics of the Library Management system that are not directly related to its specific functions but are essential for its overall performance and usability. This includes attributes like security, reliability, portability and scalability.

8. Preliminary Schedule and Budget

This section provides an initial plan for the development of the Library Management system, including a timeline and budget estimate. It outlines the phases of the project, such as requirements gathering, design, implementation, testing and deployment, along with associated costs and timeframes.