

### (iii) Library Management System

**Problem Statement:** A library management system must facilitate updated record maintenance of all library resources (books, journals, research papers etc). Each library users' card validity, resource used and resource defaulted must be recorded. It must manage all the subscriptions held by the organization.

#### 1. Introduction

1.1 Purpose of document: This document provides information about design of the system, highlighting the system's functionalities.

1.2 Scope of document: The document acts as a preliminary guide for verification of required requirements and acts as the foremost design.

1.3 Overview: The system maintains records of all the library resources and the spread of library resources. It consolidates all library resources and maintains necessary records for all resources.

#### 2. General description:

The library management system acts as an aggregator of various library resources and maintains a record of where the resources are spread. The system must provide access control. It must act as a platform to access and manage all of the library resources.



### 3. Functional requirements:

- (i) Record of library resources
- (ii) Access control of various users
- (iii) Aggregating various subscriptions
- (iv) Informing users of defaulting
- (v) Easy access / search function

### 4. Interface requirement:

- (i) User card validity
- (ii) ~~Availability~~ Complete information about resources
- (iii) Convenient search availability
- (iv) Categorical division of resources.

### 5. Performance:

- (i) Quick search of resources.
- (ii) Accurate availability of resources
- (iii) Precise record of possession of resources.

### 6. Design constraints:

- (i) Simple interface
- (ii) Strict access control
- (iii) Controlled resource aggregation.

### 7. Non-functional requirements:

- (i) Availability of resources
- (ii) ~~Displaying resource details~~ Secure authentication of users.

### 8. Preliminary schedule and budget:

Stages of development include design, implementation, debugging and testing, deployment.