

SOFTWARE

REQUIREMENTS SPECIFICATION

for

LIBRARY MANAGEMENT SYSTEM

LAB: WEDNESDAY, GROUP 18, SLOT 11(B)

TEAM MEMBERS:

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PURPOSE

- The purpose of this project is to provide a friendly environment to maintain the details of books and library members.
- The main purpose of this project is to maintain easy circulation system using computers and to provide different reports.
- The Library System is a package to be used by Libraries to improve the efficiency of Librarians, Library employees and Users.
- The system provides books catalog and information to members and helps them decide on the books to borrow from the library.
- The Librarian can keep the books catalog updated all the time so that the members (students and the professors) get the updated information all the time.

SCOPE

- The document only covers the requirements specifications for the Library Management System.
- This document does not provide any references to the other component of the Library Management System.
- All the external interfaces and the dependencies are also identified in this document.
- The overall scope of the feasibility study is to provide sufficient information to allow a decision to be made as to whether the Library Management System project should proceed and if so, its relative priority in the context of other existing Library Management Technology.

OVERVIEW

- The implementation of Library Management starts with entering and updating master records like book details, library information.
- Any further transaction like book issue, book return will automatically update the current books.
- The proposed Library Management System will take care of the current book detail at any point of time. The book issue, book return will update the current book details automatically so that user will get the update current book details.

Functional requirements:

- **Administrator Menu:** In this module we can do the following:
 - Admin should be able to insert, modify and delete books.
 - Can accept or reject a new user according to the library policy.
 - Can get the information of any member who has borrowed a book.
 - Add and edit book categories and arrange books by categories.
 - Can record books returned by users.
- **Book entry:** In this module we can enter a new book and store it.
- **Book issue:** In this module we can issue a book to the student.
- **Book record:** In this module we can keep the records of various books being issued and returned.
- **Register student:** In this module we can keep the record of how many students have we registered.

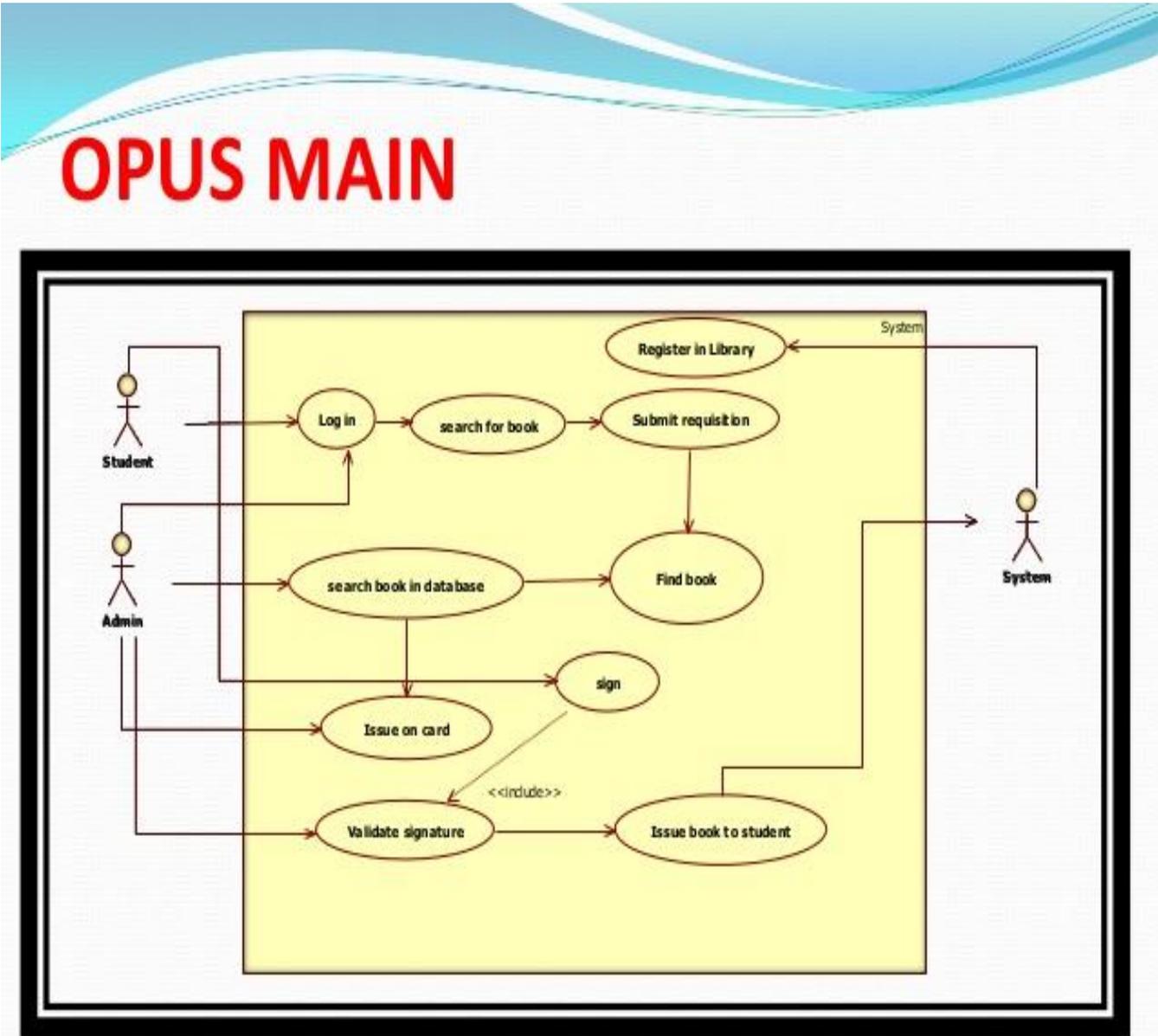
Non-Functional requirements:

- The user should be simple and easy to understand and use. Also be an interactive interface .The system should prompt for the user and administrator to login to the application and for proper input criteria.
- The software provides good graphical interface for the user. Any administrator can operate on the system, performing the required task such as create, update, viewing the details of the book. Allows user to view quick reports like Book Issues/Returned etc in between particular time.
- **Error Handling:** Library management system shall handle expected and non-expected errors in ways that prevent loss in information and long downtime period.
- **Performance Requirements:** The system shall accommodate high number of books and users without any fault.

References Used:

1. Fundamentals of Software Engineering by Rajib Mall.
Link: books.google.co.in/books?isbn=8120348982
2. C Programming by Balagurusamy.
3. Other links:
www.slideshare.net
en.wikipedia.org

Flow chart depicting the procedure:



CONCEPTS USED:

1. Classes and objects:

A class is a user defined type or data structure declared with keyword *class* that has data and functions (also called methods) as its members whose access is governed by the three access specifiers *private*, *protected* or *public* (by default access to members of a class is *private*).

When class is defined, only specification for the object is defined. Object has same relationship to class as variable has with the data type. Objects can be defined in similarly way as structure is defined as objects.

Our project will include mainly two classes one of student details and the other of books details and the corresponding objects will be accessed using objects.

2. File handling:

The records of students as well as books will be maintained using files in c++.

