Sandesh.R
IT - B
Roll No: 10

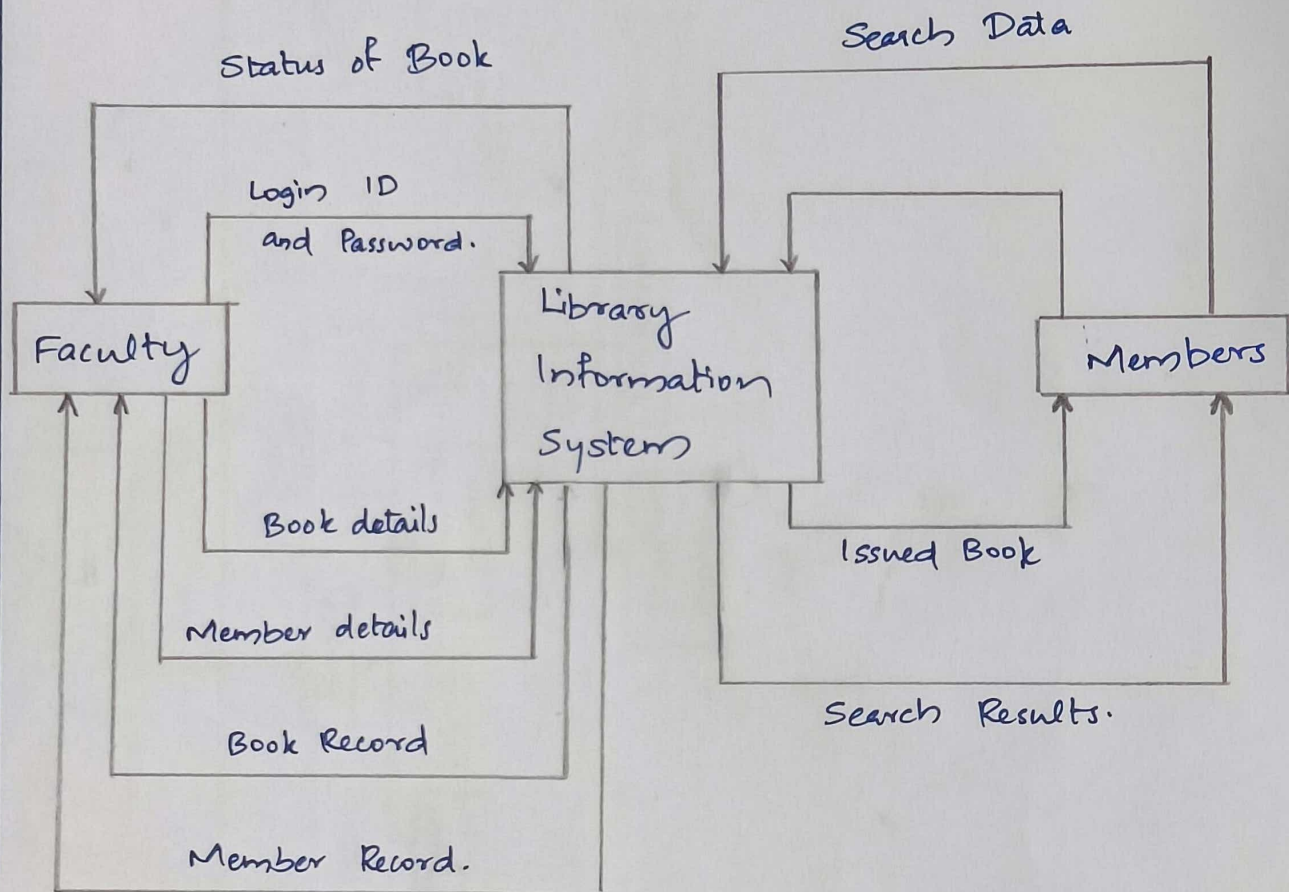## Library Information System Software

Data Flow Diagram (Level 1)

Book Shelves

Student

Book Request
Library Card

Book

Delivery of Book

List of Authors

Topic

List of titles

List of Topics

Topic

Display Book

Book Request

Search by Topic

Demanded Book Info

Book
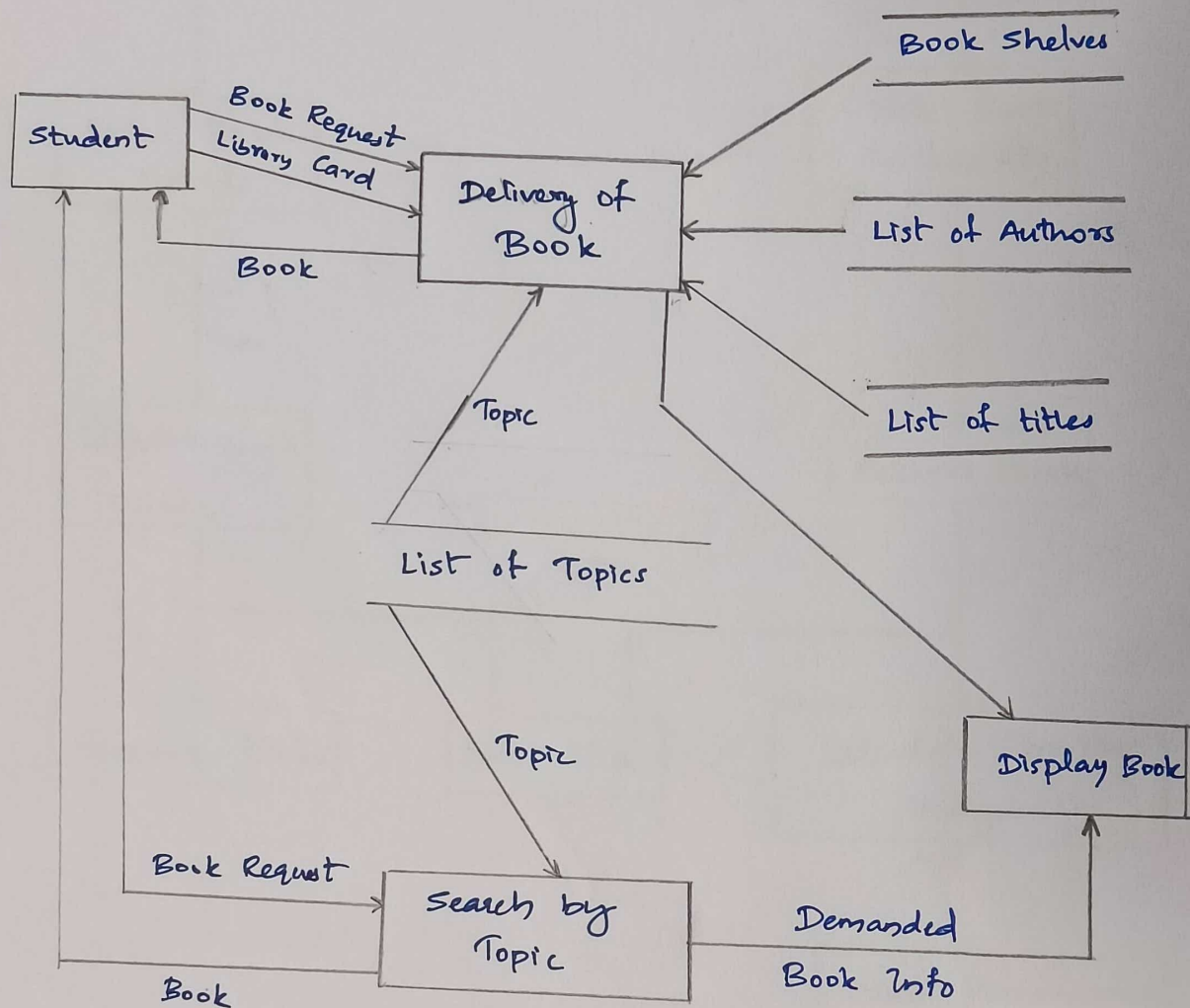
Flow of Data and Processes

```
                    ┌─────────────────────┐
                    │  Library Information │
                    │       System        │
                    └─────────────────────┘
                      │                 │
              ┌───────┘                 └───────┐
              ▼                                 ▼
    ┌──────────────────┐            ┌──────────────────┐
    │  User Interface  │            │  Book Database   │
    └──────────────────┘            └──────────────────┘
              │                                 │
              ▼                                 ▼
    ┌──────────────────┐            ┌──────────────────┐
    │   Enter Book     │            │   Check Book     │
    │    Details       │            │  availability.   │
    └──────────────────┘            └──────────────────┘
              │                                 │
              ▼                                 ▼
    ┌──────────────────┐            ┌──────────────────┐
    │  Register Book   │            │   Return Book    │
    │    Issuance      │            └──────────────────┘
    └──────────────────┘                        │
         │        │                             │
         ▼        ▼                             ▼
  ┌────────────┐ ┌────────────┐   ┌──────────────────────┐
  │  Reserve   │ │ Print Slip │   │  Calculate Penalty   │
  │   Books    │ │            │   │      charges         │
  └────────────┘ └────────────┘   └──────────────────────┘
                                              │
                                              ▼
                                  ┌──────────────────────┐
                                  │   Print Remainder    │
                                  │     Messages.        │
                                  └──────────────────────┘
```
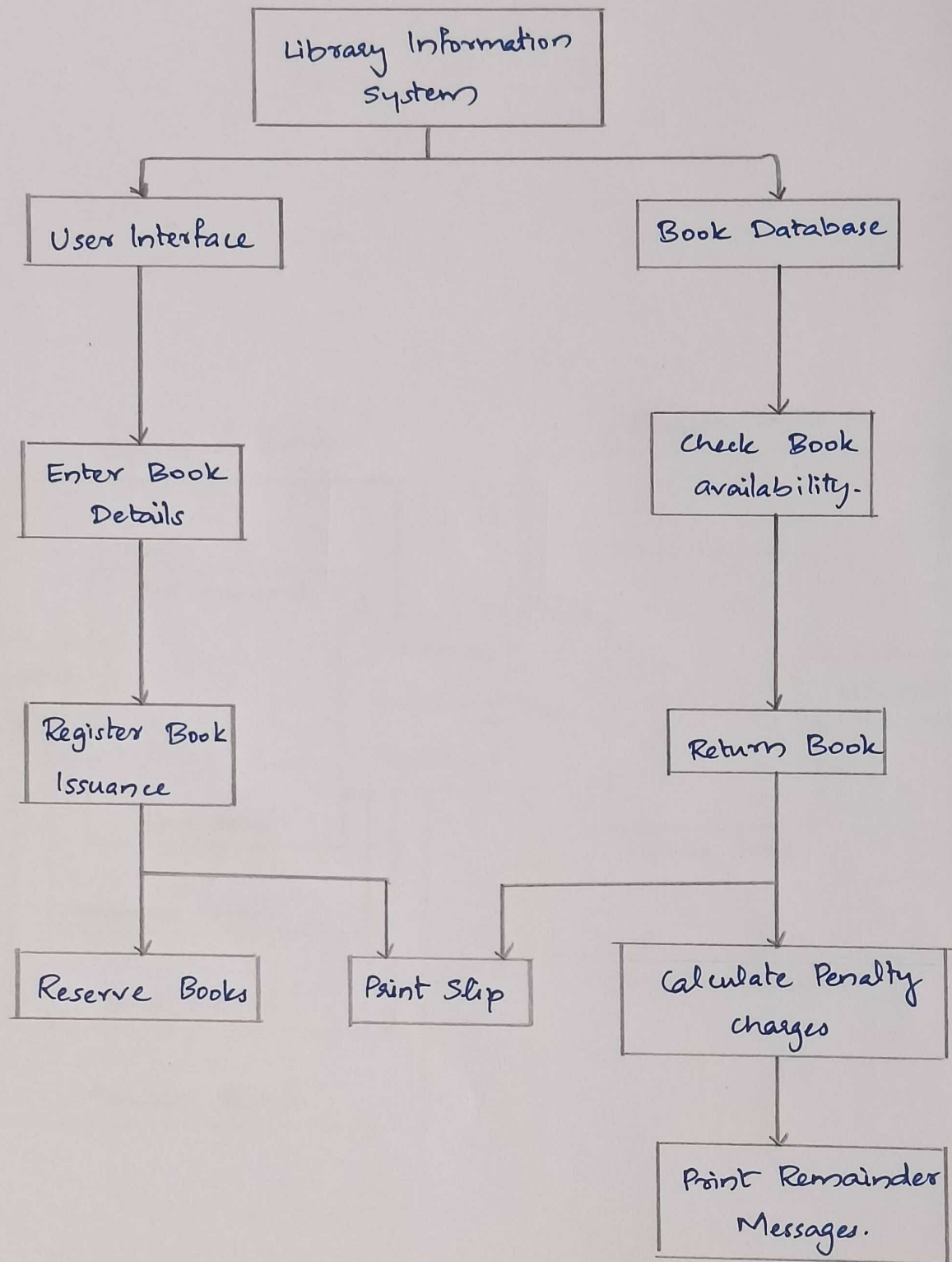
Context Level Diagram

Status of Book

Search Data

Login ID
and Password.

Library
Information
System

Faculty

Members

Book details

Issued Book

Member details

Book Record

Search Results.

Member Record.

Structure Chart

```
                         Library Management
                              System
         ┌─────────────────────┼─────────────────────┐
       Readers               Books                  Staff
    ┌─────┼─────┐       ┌──────┼──────┐         ┌──────┴──────┐
    │     │     │       │      │      │         │             │
  UG    PG   Research  Text  Novel Research  Librarian      Other
Student Student Scholar Book       Paper
    │                                  │
  Faculty                           Other
                              ┌────────┼────────┐
                          Question  News paper  Magazine
                           Paper
```