

# **Database Management Systems Lab**

## **CSPC-222**

### **Lab-Assignment 1**

Using C++, WAP of a Library Management Systems with the concepts of File Handling. It must Allow the Library to Manage the records of Issues and Deposits of Books and Add, Retrieve, and update Details of any Student or Book.

The basic features the library management system must include are:

- **Admin Access**

Create Separate Records/files for Students and Books

- In Students File, store: Student Name, Admission Number, Class, No of Books Issued.
- In Books File, store: Book Number, Author name, Book Title, Domain, Edition and No of Copies Available.

The admin has access to:

- Add new Student and Book records.
  - Modify any Student or Book record.
  - Delete any Student or Book record.
  - View any Specific or Whole Student record and Book record.
- **Book Issue:** Used at time of Issuing A book. Takes in input as Book Number and Issuer's Admission number, issue date. Adds that detail to the student record that the specific Student has issued a book. Create a file which stores this record of Book Issue.
  - **Book Deposit:** When Student returns the book, it uses student Admission Number and Book Number to modify the record of Book issued by the student. Create a file which stores this record of Book Deposit.

**Note:** A book Cannot be issued if there are no more copies available and a student can only issue 1 copy of a book and at max 3 books at a time.

A book can only be issued for 15 days at once. After that it needs to be re-issued. If the book is deposited after 15 days of issue, a fine is imposed on per day basis.