

**CS F212**

**DBS PROJECT PHASE-1**

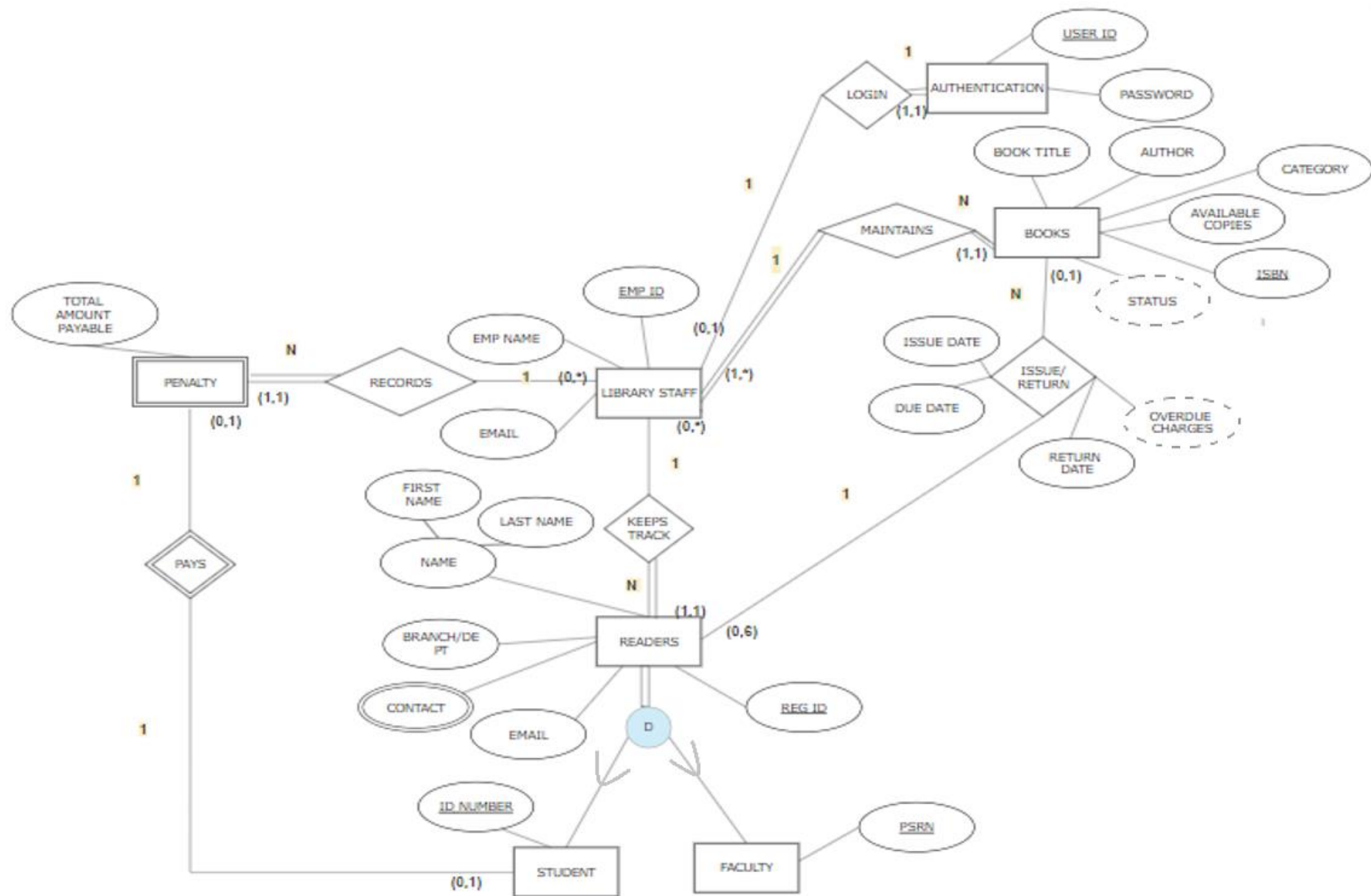


# DOMAIN DESCRIPTION

**Library management system** is an online portal that is maintained and operated by the library staff and employee. The library staff is responsible for maintaining details regarding books, reader information, penalty records etc.

- (i) A library staff/employee is registered with an authentication system that has login credentials of the employee. It may be possible that some employees are not registered with authentication system. Every employee can have one and only one set of ID and password. The login ID is same as employee ID for the employee.
- (ii) The library staff regularly maintains record of members/readers registered with the library. Being an educational institution, there are 2 types of readers - Faculty and Student. Each faculty is uniquely identified by PSRN whereas student is identified uniquely by ID no. Additionally a reader is also provided with a registration id which uniquely identifies each reader. Every reader, be it faculty or student, has the following attributes: name(first name, last name), branch/dept, email and contact. A reader can have more than one contact number.
- (iii) The library staff also maintains information of all books available in the library. Each book has following attributes: ISBN(unique), book title, author, category, status(derived),total copies.
- (iv) A reader can issue/return books through system via the library staff. The relationship between reader and book captures important details such as issue date, due date, return date, overdue charge of the particular book. The due date of any book can be fixed according to library rules. The reader cannot issue multiple copies of the same book on one day. A reader can issue max up to 6 books only.
- (v) Details regarding penalty(if any, in case of overdue) is also recorded. The penalty charges will not be applicable for Faculty members. However, a student has to pay overdue charges in case of delay in returning books.





LIBRARY\_STAFF

<u>EMP_ID</u>	EMP_NAME	EMAIL
---------------	----------	-------

AUTHENTICATION SYSTEM

<u>USER_ID</u>	PASSWORD
----------------	----------

READERS

<u>REG_ID</u>	FIRST_NAME	LAST_NAME	BRANCH/DEPT	EMAIL	STAFF_ID
---------------	------------	-----------	-------------	-------	----------

CONTACTS

<u>REG_ID</u>	<u>PHONE</u>
---------------	--------------

ISSUE/RETURN

<u>REG_ID</u>	ISBN	<u>ISSUE_DATE</u>	DUE_DATE	RETURN_DATE
---------------	------	-------------------	----------	-------------

STUDENT

REG_ID	<u>ID_NO.</u>	FIRST NAME	LAST NAME	BRANCH /DEPT	EMAIL
--------	---------------	---------------	--------------	-----------------	-------

FACULTY

REG_ID	<u>PSRN</u>	FIRST NAME	LAST NAME	BRANCH /DEPT	EMAIL
--------	-------------	---------------	--------------	-----------------	-------

BOOKS

<u>ISBN</u>	BOOK_TITLE	AUTHOR	CATEGORY	AVAILABLE COPIES	STAFF_ID
-------------	------------	--------	----------	---------------------	----------

PENALTY

<u>ID_NO.</u>	TOTAL AMT.	STAFF_ID
---------------	------------	----------

