

Relational Schema:

Publishers (publisher_ID:integer (PK), name:string, address:string, phone:integer)

Authors (author_ID:integer (PK), first_name:string, last_name:string)

Books (ISBN:integer (PK), title:string, publisher_ID:integer (FK to **Publishers**), publication_year:year, genre:string)

Book_Authors (ISBN:integer (FK to **Books**), author_ID:integer (FK to **Authors**))

Library_Branches (branch_ID:integer (PK), name:string, location:string)

Book_Copies (book_copy_ID:integer (PK), ISBN:integer (FK to **Books**), branch_ID:integer (FK to **Library_Branches**), status:ENUM (“Available”, “On Loan”, “Reserved”))

Members (member_ID:integer (PK), first_name:string, last_name:string, email:string (UNIQUE), phone:integer, address:string, date_registered:date)

Loans (loan_ID:integer (PK), book_copy_ID:integer (FK to **Book_Copies**), member_ID:integer (FK to **Members**), issue_date:date, due_date:date, return_date:date (NULL if not returned), fine_amount:integer)

ER Diagram:

