

**AIM:**

1. CREATE 2. DROP 3. ALTER 4. TRUNCATE 5. RENAME

**Write SQL commands to:**

a. Create a database by named Library

b. Create DDL statements and create the tables and constraints (from the design) in the database created (ie. Library)

c. Insert values to each table as per the requirement stated below

BOOK (Book\_Id, Title, Language\_Id, MRP, Publisher\_Id, Published\_Date, Volume, Status)  
// Language\_Id, Publisher\_Id are FK (Foreign Key)

AUTHOR(Author\_Id, Name, Email, Phone\_Number, Status)

BOOK\_AUTHOR(Book\_Id, Author\_Id) // many-to-many relationship, both columns are PKFK (Primary Key and Foreign Key)

PUBLISHER(Publisher\_id, Name, Address) MEMBER(Member\_Id, Name, Branch\_Code, Roll\_Number, Phone\_Number, Email\_Id, Date\_of\_Join, Status)

BOOK\_ISSUE(Issue\_Id, Date\_Of\_Issue, Book\_Id, Member\_Id, Expected\_Date\_Of\_Return, Status) // Book+Id and Member\_Id are FKs

BOOK\_RETURN(Issue\_Id, Actual\_Date\_Of\_Return, LateDays, LateFee) // Issue\_Id is PK and FK

LANGUAGE(Language\_id, Name) //Static Table for storing permanent data

LATE\_FEE\_RULE(FromDays, ToDays, Amount) // Composite Key

**The requirement:** A library wants to maintain the record of books, members, book issue, book return, and fines collected for late returns, in a database. The database can be loaded with book information. Students can register with the library to be a member. Books can be issued to students with a valid library membership. A student can keep an issued book with him/her for a maximum period of two weeks from the date of issue, beyond which a fine will be charged. Fine is calculated based on the delay in days of return. For 0-7 days: Rs 10, For 7 – 30 days: Rs 100, and for days above 30 days: Rs 10 will be charged per day.

**Questions :**

1. Alter Table - Add a new column to the BOOK table:

2. Alter Table - Modify the data type of a column in the MEMBER table:

3. Truncate Table - Remove all records from the PUBLISHER table:

Note: In Oracle, you cannot directly use the TRUNCATE TABLE command without disabling referential constraints. If there are foreign key constraints referencing the table you want to truncate, Oracle won't allow truncation.

4. Drop Table - Delete the AUTHOR table from the database:

5. Rename Table - Change the name of the LATE\_FEE\_RULE table to FINE table