**Practical-8:**

**Consider the following schema for a LibraryDatabase:**

**BOOK (Book\_id, Title, Publisher\_Name, Pub\_Year)**

**BOOK\_AUTHORS (Book\_id, Author\_Name)**

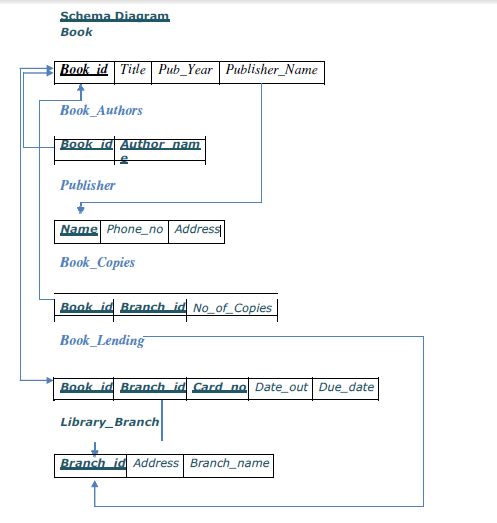
**PUBLISHER (Name, Address, Phone)**

**BOOK\_COPIES**

**(Book\_id, Branch\_id, No-of\_Copies)**

**BOOK\_LENDING (Book\_id, Branch\_id, Card\_No, Date\_Out, Due\_Date)**

**LIBRARY\_BRANCH (Branch\_id, Branch\_Name, Address)**



**Table Creation**

CREATE TABLE PUBLISHER (NAME VARCHAR (20) PRIMARY KEY, PHONE INT, ADDRESS VARCHAR (20));

CREATE TABLE BOOK (BOOK\_ID INT PRIMARY KEY,TITLE VARCHAR(20), PUB\_YEAR VARCHAR (20), PUBLISHER\_NAME VARCHAR(20) REFERENCES PUBLISHER (NAME) ON DELETE CASCADE);

CREATE TABLE BOOK\_AUTHORS (AUTHOR\_NAME VARCHAR (20), BOOK\_ID INT REFERENCES BOOK (BOOK\_ID) ON DELETE CASCADE,

PRIMARY KEY (BOOK\_ID, AUTHOR\_NAME));

CREATE TABLE LIBRARY\_BRANCH (BRANCH\_ID INT PRIMARY KEY, BRANCH\_NAME VARCHAR(50), ADDRESS VARCHAR2 (50));

CREATE TABLE BOOK\_COPIES(NO\_OF\_COPIES INT,BOOK\_ID INT REFERENCES BOOK (BOOK\_ID) ON DELETE CASCADE,BRANCH\_ID INT REFERENCES LIBRARY\_BRANCH (BRANCH\_ID) ON DELETE CASCADE, PRIMARY KEY (BOOK\_ID, BRANCH\_ID));

CREATE TABLE CARD (CARD\_NO INT PRIMARY KEY);

CREATE TABLE BOOK\_LENDING (DATE\_OUT DATE, DUE\_DATE DATE,

BOOK\_ID REFERENCES BOOK (BOOK\_ID) ON DELETE CASCADE,

BRANCH\_ID REFERENCES LIBRARY\_BRANCH (BRANCH\_ID) ON DELETE

CASCADE, CARD\_NO INT REFERENCES CARD (CARD\_NO) ON DELETE CASCADE,PRIMARY KEY (BOOK\_ID, BRANCH\_ID, CARD\_NO));

**Insertion of Values to Tables:**

INSERT INTO PUBLISHER VALUES (EMCGRAW-HILL‘, 9989076587, EBANGALORE‘);

INSERT INTO PUBLISHER VALUES (EPEARSON‘, 9889076565, ENEWDELHI‘);

INSERT INTO PUBLISHER VALUES (ERANDOM HOUSE‘, 7455679345, EHYDRABAD‘); INSERT

INTO PUBLISHER VALUES (EHACHETTE LIVRE‘, 8970862340, ECHENAI‘);

INSERTINTOPUBLISHERVALUES(EGRUPOPLANETA‘,7756120238,EBANGALORE‘);

INSERT INTO BOOK VALUES (1,‘DBMS‘,‘JAN-2017‘, EMCGRAW-HILL‘); INSERT INTO

BOOK VALUES (2,‘ADBMS‘,‘JUN-2016‘, EMCGRAW-HILL‘); INSERT INTO BOOK

VALUES (3,‘CN‘,‘SEP-2016‘, EPEARSON‘);

INSERT INTO BOOK VALUES (4,‘CG‘,‘SEP-2015‘, EGRUPO PLANETA‘); INSERT

INTO BOOK VALUES (5,‘OS‘,‘MAY-2016‘, EPEARSON‘);

INSERT INTO BOOK\_AUTHORS VALUES (‘NAVATHE‘, 1); INSERT INTO

BOOK\_AUTHORS VALUES (‘NAVATHE‘, 2); INSERT INTO

BOOK\_AUTHORS VALUES (‘TANENBAUM‘, 3); INSERT INTO

BOOK\_AUTHORS VALUES (‘EDWARD ANGEL‘, 4); INSERT INTO

BOOK\_AUTHORS VALUES (‘GALVIN‘, 5);

INSERT INTO LIBRARY\_BRANCH VALUES (10,‘RR NAGAR‘,‘BANGALORE‘); INSERT

INTO LIBRARY\_BRANCH VALUES (11,‘RNSIT‘,‘BANGALORE‘);

INSERT INTO LIBRARY\_BRANCH VALUES (12,‘RAJAJI NAGAR‘, ‘BANGALORE‘); INSERT INTO

LIBRARY\_BRANCH VALUES (13,‘NITTE‘,‘MANGALORE‘);

INSERT INTO LIBRARY\_BRANCH VALUES (14,‘MANIPAL‘,‘UDUPI‘);

INSERT INTO BOOK\_COPIES VALUES (10, 1, 10);

INSERT INTO BOOK\_COPIES VALUES (5, 1,11);

INSERT INTO BOOK\_COPIES VALUES (2, 2,12);

INSERT INTO BOOK\_COPIES VALUES (5, 2,13);

INSERT INTO BOOK\_COPIES VALUES (7, 3,14);

INSERT INTO BOOK\_COPIES VALUES (1, 5,10);

INSERT INTO BOOK\_COPIES VALUES (3, 4,11);

INSERT INTO CARD VALUES (100);

INSERT INTO CARD VALUES (101);

INSERT INTO CARD VALUES (102);

INSERT INTO CARD VALUES (103);

INSERT INTO CARD VALUES (104);

INSERT INTO BOOK\_LENDING VALUES (‘01-JAN-17‘,‘01-JUN-17‘, 1, 10, 101);

INSERT INTO BOOK\_LENDING VALUES (‘11-JAN-17‘,‘11-MAR-17‘, 3, 14, 101);

INSERT INTO BOOK\_LENDING VALUES (‘21-FEB-17‘,‘21-APR-17‘, 2, 13, 101);

INSERT INTO BOOK\_LENDING VALUES (‘15-MAR-17‘,‘15-JUL-17‘, 4, 11, 101);

INSERT INTO BOOK\_LENDING VALUES (‘12-APR-17‘,‘12-MAY-17‘, 1, 11, 104);

SELECT \* FROM PUBLISHER;

**Write SQL queries to**

**1.** Retrieve details of all books in the library – id, title, name of publisher, authors, number

of copies in each branch,etc.

**2.** Get the particulars of borrowers who have borrowed more than 3 books, but from Jan

2017 to Jun2017

**3.** Delete a book in BOOK table. Update the contents of other tables to reflect this data

manipulationoperation.

**4.** Partition the BOOK table based on year of publication. Demonstrate its working with a

simplequery.

**5.** Create a view of all books and its number of copies that are currently available in the

Library.