

**University of Engineering and Management**

**Database Management System Laboratory**

**BCAC 491**

**ASSIGNMENT 1**

**1. Consider the following schema for a Library Database:**

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

Name	Null?	Type
BOOK_ID	NOT NULL	NUMBER(38)
TITLE		VARCHAR2(20)
PUB_YEAR		VARCHAR2(20)
PUBLISHER_NAME		VARCHAR2(20)

1. Make BOOK\_ID as Primary Key

2. Make PUBLISHER\_NAME as foreign key of NAME field PUBLISHER TABLE

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

Name	Null?	Type
AUTHOR_NAME	NOT NULL	VARCHAR2(20)
BOOK_ID	NOT NULL	NUMBER(38)

1. Make Author\_NAME and BOOK\_ID as Composite Key

2. Make Book\_ID Foreign Key of BOOK\_ID field of BOOK table

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

Name	Null?	Type
NAME	NOT NULL	VARCHAR2(20)
PHONE		NUMBER(38)
ADDRESS		VARCHAR2(20)

1. Make Name as Primary Key

**d. BOOK\_COPIES (Book\_id, Branch\_id, No-of\_Copies)**

Name	Null?	Type
NO_OF_COPIES		NUMBER(38)
BOOK_ID	NOT NULL	NUMBER(38)
BRANCH_ID	NOT NULL	NUMBER(38)

1. Make BOOK\_ID, BRANCH\_ID as composite Key
3. Make Book\_ID Foreign Key of BOOK\_ID field of BOOK table
4. Make BRANCH\_ID Foreign Key of BRANCH\_ID field of LIBRARY\_BRANCH table

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

Name	Null?	Type
DATE_OUT		
DUE_DATE		
BOOK_ID		
BRANCH_ID		
CARD_NO		

1. The data type for DATE\_OUT and DUE\_DATE DATE will be date
2. Make Book\_ID Foreign Key of BOOK\_ID field of BOOK table
3. Make BRANCH\_ID Foreign Key of BRANCH\_ID field of LIBRARY\_BRANCH table
4. Make CARD\_NO Foreign Key of CARD\_NO field of CARD table
5. Make BOOK\_ID, BRANCH\_ID, CARD\_NO as composite key

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

Name	Null?	Type
BRANCH_ID	NOT NULL	NUMBER(38)
BRANCH_NAME		VARCHAR2(50)
ADDRESS		VARCHAR2(50)

1. Make BRANCH\_ID as Primary Key.

g. **Card (CARD\_ID)**

Name	Null?	Type
CARD_NO	NOT NULL	NUMBER(38)

1. Make CARD\_NO as Primary Key

**Data for the PUBLISHER tables**

1. 'MCGRAW-HILL', 9989076587, 'BANGALORE'
2. 'PEARSON', 9889076565, 'NEWDELHI'
3. 'RANDOM HOUSE', 7455679345, 'HYDRABAD'
4. HACHETTE LIVRE', 8970862340, 'CHENAI
5. GRUPOPLANETA', 7756120238, 'BANGALORE'

**Data for the BOOK tables**

1. 1, 'DBMS', 'JAN-2017', 'MCGRAW-HILL'
2. 2, 'ADBMS', 'JUN-2016', 'MCGRAW-HILL'
3. 3, 'CN', 'SEP-2016', 'PEARSON'
4. 4, 'CG', 'SEP-2015', 'GRUPO PLANETA'
5. 5, 'OS', 'MAY-2016', 'PEARSON'

**Data for the BOOK\_AUTHORS tables**

1. 'NAVATHE', 1
2. 'NAVATHE', 2
3. 'TANENBAUM', 3
4. 'EDWARD ANGEL', 4
5. 'GALVIN', 5

**Data for LIBRARY\_BRANCH tables**

1. 10, 'RR NAGAR', 'BANGALORE'
2. 11, 'RNSIT', 'BANGALORE'
3. 12, 'RAJAJI NAGAR', 'BANGALORE'
4. 13, 'NITTE', 'MANGALORE
5. 14, 'MANIPAL', 'UDUPI'

**Data for BOOK\_COPIES tables**

1. 10, 1, 1
2. 5, 1, 11
3. 2, 2, 12

4. 5, 2, 13
5. 7, 3, 14
6. 1, 5, 10
7. 3, 4, 11

**Data for BOOK\_COPIES tables**

1. 100
2. 101
3. 102
4. 103
5. 104

**Data for BOOK\_LENDING tables**

1. '01-JAN-17', '01-JUN-17', 1, 10, 101
2. '11-JAN-17', '11-MAR-17', 3, 14, 101
3. '21-FEB-17', '21-APR-17', 2, 13, 101
4. '15-MAR-17', '15-JUL-17', 4, 11, 101
5. 12-APR-17, '12-MAY-17', 1, 11, 104