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CSE-4A

Question:-

Program 7:

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)

Program 7:

create database bookdb1;

use bookdb1;

CREATE TABLE PUBLISHER

```sql
(NAME VARCHAR(20) PRIMARY KEY,

PHONE VARCHAR(10),

ADDRESS VARCHAR(20));

SELECT * FROM PUBLISHER;

CREATE TABLE BOOK(

BOOK_ID INTEGER PRIMARY KEY,

TITLE VARCHAR(20),

PUB_YEAR VARCHAR(20),

PUBLISHER_NAME VARCHAR(20),

FOREIGN KEY (PUBLISHER_NAME) REFERENCES PUBLISHER (NAME) ON DELETE

CASCADE);

SELECT * FROM BOOK;

CREATE TABLE BOOK_AUTHORS(
```

```sql
AUTHOR_NAME VARCHAR(20),

BOOK_ID INTEGER,

PRIMARY KEY (BOOK_ID,
AUTHOR_NAME),

FOREIGN KEY (BOOK_ID) REFERENCES
BOOK (BOOK_ID) ON DELETE CASCADE
);

SELECT * FROM BOOK_AUTHORS;

CREATE TABLE LIBRARY_BRANCH (

BRANCH_ID INTEGER PRIMARY KEY,

BRANCH_NAME VARCHAR(20),

ADDRESS VARCHAR(20));

SELECT * FROM LIBRARY_BRANCH;

CREATE TABLE BOOK_COPIES

(
```

```sql
NO_OF_COPIES INTEGER,

BOOK_ID INTEGER,

BRANCH_ID INTEGER ,

PRIMARY KEY (BOOK_ID, BRANCH_ID),

FOREIGN KEY (BOOK_ID) REFERENCES
BOOK (BOOK_ID) ON DELETE CASCADE,

FOREIGN KEY (BRANCH_ID)
REFERENCES LIBRARY_BRANCH
(BRANCH_ID) ON

DELETE CASCADE);

SELECT * FROM BOOK_COPIES;

CREATE TABLE CARD

(CARD_NO INTEGER PRIMARY KEY);

SELECT * FROM CARD;

CREATE TABLE BOOK_LENDING(
```

```
DATE_OUT DATE,

DUE_DATE DATE,

BOOK_ID INTEGER,

BRANCH_ID INTEGER ,

CARD_NO INTEGER,

PRIMARY KEY (BOOK_ID, BRANCH_ID, CARD_NO),

FOREIGN KEY (BOOK_ID) REFERENCES BOOK (BOOK_ID) ON DELETE CASCADE,

FOREIGN KEY (CARD_NO) REFERENCES CARD (CARD_NO) ON DELETE CASCADE,

FOREIGN KEY (BRANCH_ID) REFERENCES LIBRARY_BRANCH (BRANCH_ID) ON

DELETE CASCADE);
```

```sql
SELECT * FROM BOOK_LENDING;

INSERT INTO PUBLISHER VALUES ("MCGRAW-HILL", "9989076587", "BANGALORE"),

("PEARSON", "9889076565", "NEWDELHI"),

("RANDOM HOUSE", "7455679345", "HYDRABAD"),

("HACHETTE LIVRE", "8970862340", "CHENNAI"),

("GRUPO PLANETA","7756120238","BANGALORE");

INSERT INTO BOOK VALUES ("1","DBMS","JAN-2017", "MCGRAW-HILL"),
```

("2","ADBMS","JUN-2016", "MCGRAW-HILL"),

("3","CN","SEP-2016", "PEARSON"),

("4","CG","SEP-2015","GRUPO PLANETA"),

("5","OS","MAY-2016","PEARSON");

INSERT INTO BOOK_AUTHORS VALUES ("NAVATHE","1"),

("NAVATHE","2"),

("TANENBAUM","3"),

("EDWARD ANGEL","4"),

("GALVIN","5");

INSERT INTO LIBRARY_BRANCH VALUES ("10","RR NAGAR","BANGALORE"),

("11","RNSIT","BANGALORE"),

("12","RAJAJI NAGAR", "BANGALORE"),

("13","NITTE","MANGALORE"),

("14","MANIPAL","UDUPI");

INSERT INTO BOOK_COPIES VALUES ("10", "1",

"10"),("5","1","11"),("2","2","12"),("5","2","13"),("7","3","14"),("1","5","10"),("3","4","11");

INSERT INTO CARD VALUES ("100"),("101"),("102"),("103"),("104");

INSERT INTO BOOK_LENDING VALUES ("17-01-01","17-06-01","1","10","101"),

("17-01-17","17-03-17","3", "14", "101"),

("17-02-21","17-04-21", 2, 13, 101),

```
("17-03-15","17-07-15", "4", "11",
"101"),

("17-04-12","17-05-12", "1", "11",
"104");

SELECT B.BOOK_ID, B.TITLE,
B.PUBLISHER_NAME,

A.AUTHOR_NAME,C.NO_OF_COPIES,L.
BRANCH_ID

FROM BOOK B, BOOK_AUTHORS A,
BOOK_COPIES C, LIBRARY_BRANCH L

WHERE B.BOOK_ID=A.BOOK_ID AND
B.BOOK_ID=C.BOOK_ID AND

L.BRANCH_ID=C.BRANCH_ID;

SELECT CARD_NO FROM
BOOK_LENDING

WHERE DATE_OUT BETWEEN "2017-
01-01" AND "2017-07-01"
```

```sql
GROUP BY CARD_NO

HAVING COUNT(*)>3;

DELETE FROM BOOK

WHERE BOOK_ID=3;

CREATE VIEW YEAR_OF_PUBLICATION
AS SELECT PUB_YEAR

FROM BOOK;

SELECT * FROM
YEAR_OF_PUBLICATION;

CREATE VIEW
BOOKS_AVAILABLE_IN_LIBRARY AS

SELECT B.BOOK_ID, B.TITLE,
C.NO_OF_COPIES

FROM BOOK B, BOOK_COPIES C,
LIBRARY_BRANCH L

WHERE B.BOOK_ID=C.BOOK_ID
```

AND C.BRANCH_ID=L.BRANCH_ID;

SELECT * FROM
BOOKS_AVAILABLE_IN_LIBRARY;

Output:

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

AUTHOR_NAME	BOOK_ID
NULL	NULL

Result Grid · Form Editor

PUBLISHER 1　BOOK 2　BOOK_AUTHORS 3 ×　LIBRARY_BRANCH 4　BOOK_COPIES 5　CARD 6　BOOK_LENDING 7　Result 8　Apply　Revert

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

BRANCH_ID	BRANCH_NAME	ADDRESS
NULL	NULL	NULL

Result Grid · Form Editor

PUBLISHER 1　BOOK 2　BOOK_AUTHORS 3　LIBRARY_BRANCH 4 ×　BOOK_COPIES 5　CARD 6　BOOK_LENDING 7　Result 8　Apply　Revert

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

NO_OF_COPIES	BOOK_ID	BRANCH_ID
NULL	NULL	NULL

Result Grid · Form Editor

PUBLISHER 1　BOOK 2　BOOK_AUTHORS 3　LIBRARY_BRANCH 4　BOOK_COPIES 5 ×　CARD 6　BOOK_LENDING 7　Result 8　Apply　Revert

Output

Result Grid — CARD 6

	CARD_NO
*	NULL

Tabs: PUBLISHER 1 | BOOK 2 | BOOK_AUTHORS 3 | LIBRARY_BRANCH 4 | BOOK_COPIES 5 | CARD 6 × | BOOK_LENDING 7 | Result 8 | Apply | Revert

Output

Result Grid — BOOK_LENDING 7

	DATE_OUT	DUE_DATE	BOOK_ID	BRANCH_ID	CARD_NO
*	NULL	NULL	NULL	NULL	NULL

Tabs: PUBLISHER 1 | BOOK 2 | BOOK_AUTHORS 3 | LIBRARY_BRANCH 4 | BOOK_COPIES 5 | CARD 6 | BOOK_LENDING 7 × | Result 8 | Apply | Revert

Output

Result Grid — Result 8

	BOOK_ID	TITLE	PUBLISHER_NAME	AUTHOR_NAME	NO_OF_COPIES	BRANCH_ID
▶	1	DBMS	MCGRAW-HILL	NAVATHE	10	10
	1	DBMS	MCGRAW-HILL	NAVATHE	5	11
	2	ADBMS	MCGRAW-HILL	NAVATHE	2	12
	2	ADBMS	MCGRAW-HILL	NAVATHE	5	13
	3	CN	PEARSON	TANENBAUM	7	14
	4	CG	GRUPO PLANETA	EDWARD ANGEL	3	11
	5	OS	PEARSON	GALVIN	1	10

Tabs: BOOK_COPIES 5 | CARD 6 | BOOK_LENDING 7 | Result 8 × | BOOK_LENDING 9 | YEAR_OF_PUBLICATION 10 | BOOKS_AVAILABLE_IN_LIBRAR. ⓘ | Read Only

Output

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

CARD_NO
101

BOOK_COPIES 5   CARD 6   BOOK_LENDING 7   Result 8   BOOK_LENDING 9 ×   YEAR_OF_PUBLICATION 10   BOOKS_AVAILABLE_IN_LIBRAR. ●   Read Only

Output

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7 ●   SELECT * FROM PUBLISHED;

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

PUB_YEAR
JAN-2017
JUN-2016
SEP-2015
MAY-2016

BOOK_COPIES 5   CARD 6   BOOK_LENDING 7   Result 8   BOOK_LENDING 9   YEAR_OF_PUBLICATION 10 ×   BOOKS_AVAILABLE_IN_LIBRAR. ●   Read Only

Output

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

BOOK_ID	TITLE	NO_OF_COPIES
1	DBMS	10
1	DBMS	5
2	ADBMS	2
2	ADBMS	5
4	CG	3
5	OS	1

BOOK_COPIES 5   CARD 6   BOOK_LENDING 7   Result 8   BOOK_LENDING 9   YEAR_OF_PUBLICATION 10   BOOKS_AVAILABLE_IN_LIBRAR. ●   Read Only

Output