Code:

create table publisher(

name varchar(30),

address varchar(50),

phone varchar(10),

primary key(name));

create table book(

book\_id int,

title varchar(30),

publisher\_name varchar(50),

pub\_year varchar(30),

primary key(book\_id),

foreign key(publisher\_name) references publisher(name) on delete cascade) ;

create table book\_authors(

book\_id int,

author\_name varchar(30),

primary key(book\_id,author\_name),

foreign key(book\_id) references book(book\_id) on delete cascade);

create table library\_branch(

branch\_id int,

branch\_name varchar(30),

address varchar(50),

primary key(branch\_id));

create table book\_copies(

book\_id int,

branch\_id int,

copies int,

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);

create table card(

card\_no int,

primary key(card\_no));

create table book\_lending(

book\_id int,

branch\_id int,

card\_no int,

date\_out date,

due\_date date,

primary key(book\_id,branch\_id,card\_no),

foreign key(book\_id) references book(book\_id) on delete cascade,

foreign key(branch\_id) references library\_branch(branch\_id) on delete cascade,

foreign key(card\_no) references card(card\_no) on delete cascade);

INSERT INTO publisher VALUES ('MCGRAW-HILL','9989076587','BANGALORE');

INSERT INTO PUBLISHER VALUES ('PEARSON', '9889076565', 'NEW DELHI');

INSERT INTO PUBLISHER VALUES ('RANDOM HOUSE', '7455679345', 'HYDERABAD');

INSERT INTO PUBLISHER VALUES ('HACHETTE LIVRE', '8970862340', 'CHENNAI');

INSERT INTO PUBLISHER VALUES ('GRUPO PLANETA','7756120238', 'BANGALORE');

INSERT INTO BOOK VALUES ('1','DBMS', 'MCGRAW-HILL','JAN-2017');

INSERT INTO BOOK VALUES ('2','ADBMS', 'MCGRAW-HILL','JUN-2016');

INSERT INTO BOOK VALUES ('3','CN', 'PEARSON','SEP-2016');

INSERT INTO BOOK VALUES ('4','CG', 'GRUPO PLANETA','SEP-2015');

INSERT INTO BOOK VALUES ('5','OS', 'PEARSON','MAY-2016');

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

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

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

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

INSERT INTO BOOK\_AUTHORS VALUES ('5','GALVIN');

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 ( 1, 10,10);

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

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

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

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

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

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

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 ( 1, 10, 101,'01-JAN-17','01-JUN-17');

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

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

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

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

select \* from publisher;

select \* from book;

select \* from library\_branch;

select \* from book\_copies;

select \* from card;

select \* from book\_lending;

SELECT B.BOOK\_ID, B.TITLE, B.PUBLISHER\_NAME, A.AUTHOR\_NAME, C.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 '01-JAN-2017' AND '01-JUL-2017'

GROUP BY CARD\_NO

HAVING COUNT (\*)>3;

delete from book where book\_id=3;

CREATE VIEW V\_PUBLICATION AS

SELECT PUB\_YEAR

FROM BOOK;

select \* FROM V\_PUBLICATION;

CREATE VIEW V\_BOOKS AS

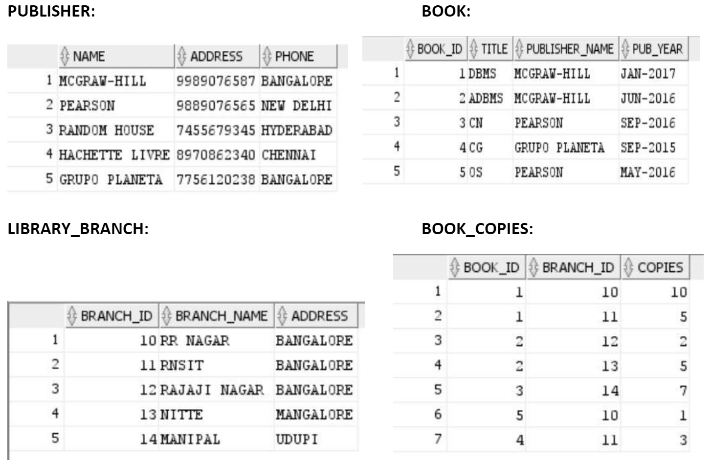
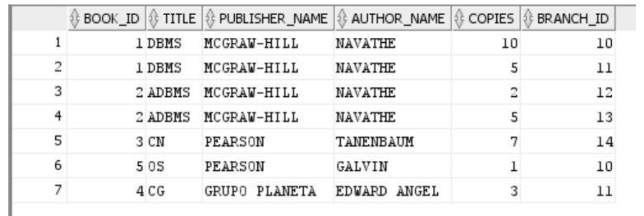
SELECT B.BOOK\_ID, B.TITLE, C.COPIES

FROM BOOK B, BOOK\_COPIES C, LIBRARY\_BRANCH L

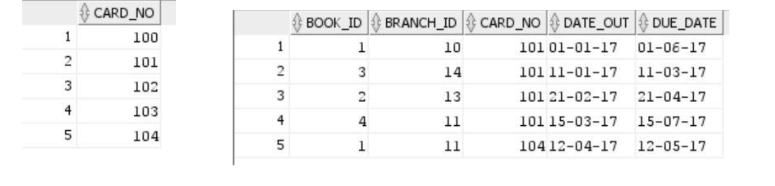
WHERE B.BOOK\_ID=C.BOOK\_ID

AND C.BRANCH\_ID=L.BRANCH\_ID;

select \* FROM V\_BOOKS;

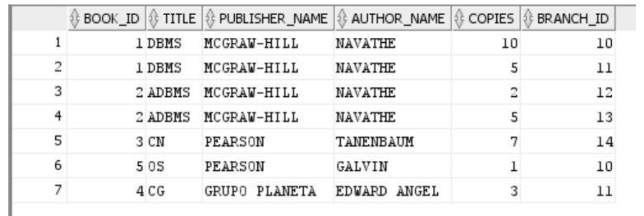
**CARD** **BOOK LENDING**

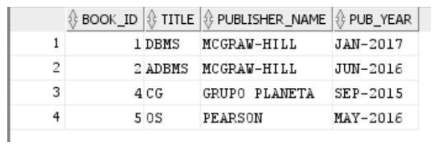
**CARD** **BOOK LENDING**

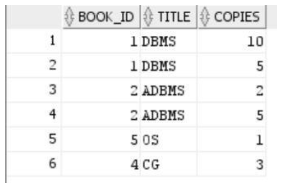
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QUERY

1

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QUERY 2

QUERY 4

QUERY 5

