**LAB 7**  **BOOK DATABASE**

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;

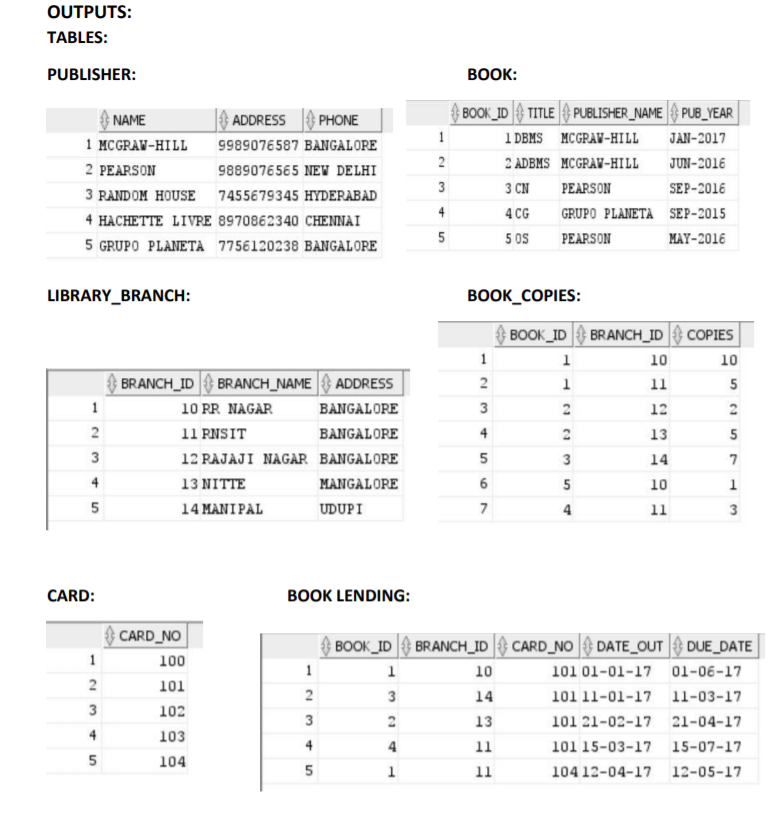
DELETE FROM BOOK WHERE BOOK\_ID=3;

CREATE VIEW V\_PUBLICATION AS SELECT PUB\_YEAR FROM BOOK;

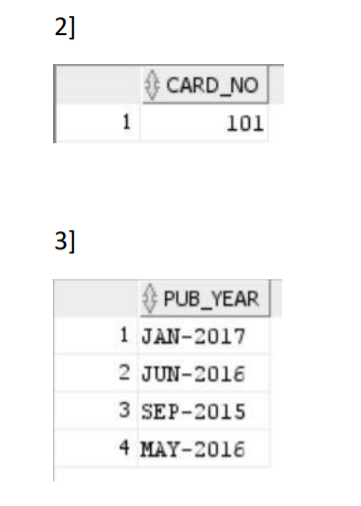
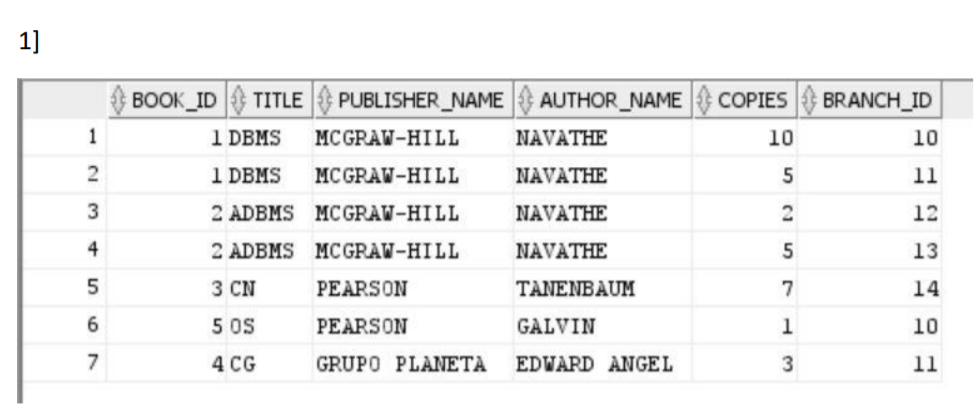
SELECT \* FROM V\_PUBLICATION;

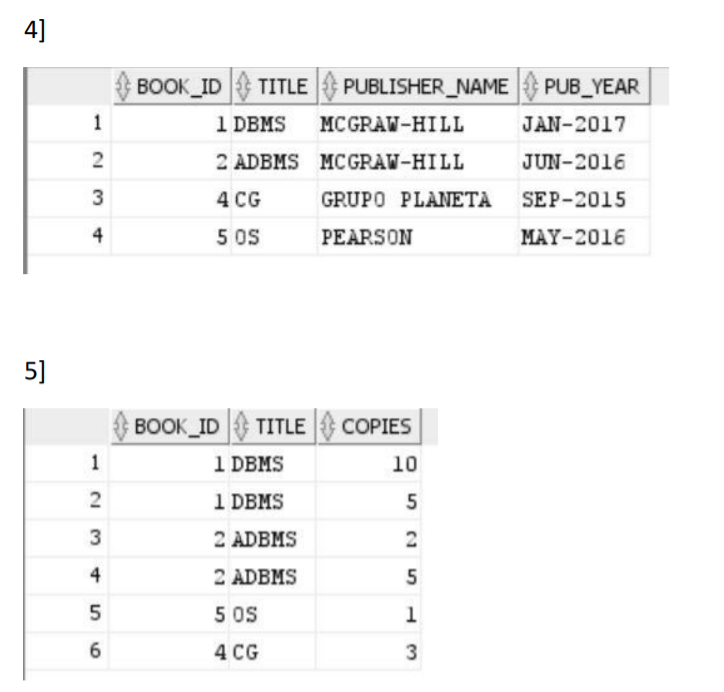
CREATE VIEW V\_BOOKS AS SELECT B.BOOK\_ID, B.TITLE, C.COPIES FROM BOOK B, BOOK\_COPIES C, LIBRARY\_BRANCH L WHERE B.BOOK\_ID=C.BOOK\_ID AND C.BRANCH\_ID=L.BRANCH\_ID;

SELECT \* FROM V\_BOOKS;



**OUTPUT**

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