LAB-7 OUTPUT

CREATE DATABASE SUPPLIER;

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CREATE TABLE SUPPLIERS (SID BIGINT (5) PRIMARY KEY, SNAME
VARCHAR(20), CITY VARCHAR(20));
INSERT INTO SUPPLIERS VALUES (10001, 'ACME WIDGET', 'BANGALORE');
INSERT INTO SUPPLIERS VALUES (10002, 'JOHNS', 'KOLKATA');
INSERT INTO SUPPLIERS VALUES(10003,'VIMAL','MUMBAI');
INSERT INTO SUPPLIERS VALUES (10004, 'RELIANCE ', 'DELHI');
SELECT * FROM SUPPLIERS;
CREATE TABLE PARTS (PID BIGINT (5) PRIMARY KEY, PNAME VARCHAR (20),
COLOR VARCHAR(10));
INSERT INTO PARTS VALUES (20001, 'BOOK', 'RED');
INSERT INTO PARTS VALUES (20002, 'PEN', 'RED');
INSERT INTO PARTS VALUES (20003, 'PENCIL', 'GREEN');
INSERT INTO PARTS VALUES (20004, 'MOBILE ', 'GREEN');
INSERT INTO PARTS VALUES (20005, 'CHARGER', 'BLACK');
SELECT * FROM PARTS;
CREATE TABLE CATALOG(SID BIGINT(5), PID BIGINT(5), FOREIGN KEY(SID)
REFERENCES SUPPLIERS(SID), FOREIGN KEY(PID) REFERENCES PARTS(PID),
COST FLOAT(6), PRIMARY KEY(SID, PID));
INSERT INTO CATALOG VALUES (10001, 20001, 10);
INSERT INTO CATALOG VALUES (10001, 20002, 10);
INSERT INTO CATALOG VALUES (10001, 20003, 30);
INSERT INTO CATALOG VALUES (10001, 20004, 10);
INSERT INTO CATALOG VALUES (10001, 20005, 10);
INSERT INTO CATALOG VALUES (10002, 20001, 10);
INSERT INTO CATALOG VALUES (10002, 20002, 20);
INSERT INTO CATALOG VALUES (10003, 20003, 30);
INSERT INTO CATALOG VALUES (10004, 20003, 40);
SELECT * FROM CATALOG;
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/* 1 - FIND THE PNAMES OF PARTS FOR WHICH THERE IS SOME SUPPLIER. */
SELECT DISTINCT P.PNAME
FROM PARTS P, CATALOG C
WHERE P.PID = C.PID;
/* FIND THE SNAMES OF SUPPLIERS WHO SUPPLY EVERY PART */
SELECT S.SNAME FROM SUPPLIERS S WHERE NOT EXISTS (SELECT P.PID FROM
PARTS P WHERE NOT EXISTS (SELECT C.SID FROM CATALOG C WHERE C.SID =
S.SID AND C.PID = P.PID));
/* FIND THE SNAMES OF SUPPLIERS WHO SUPPLY EVERY RED PART. */
SELECT S.SNAME FROM SUPPLIERS S WHERE NOT EXISTS (SELECT P.PID FROM
PARTS P WHERE P.COLOR = 'RED' AND (NOT EXISTS (SELECT C.SID FROM
CATALOG C WHERE C.SID = S.SID AND C.PID = P.PID)));
/* FIND THE PNAMES OF PARTS SUPPLIED BY ACME WIDGET SUPPLIERS AND BY NO ONE
ELSE */
SELECT P.PNAME FROM PARTS P, CATALOG C, SUPPLIERS S WHERE P.PID
= C.PID AND C.SID = S.SID AND S.SNAME = 'ACME WIDGET' AND NOT EXISTS
(SELECT * FROM CATALOG C1, SUPPLIERS S1 WHERE P.PID = C1.PID AND
C1.SID = S1.SID AND S1.SNAME <> 'ACME WIDGET');
/* FIND THE SIDS OF SUPPLIERS WHO CHARGE MORE FOR SOME PART THAN THE AVERAGE
COST OF THAT PART (AVERAGED OVER
ALL THE SUPPLIERS WHO SUPPLY THAT PART).
*/
SELECT DISTINCT C.SID FROM CATALOG C
WHERE C.COST > ( SELECT AVG (C1.COST)
FROM CATALOG C1
WHERE C1.PID = C.PID);
```

```
/* FOR EACH PART, FIND THE SNAME OF THE SUPPLIER WHO CHARGES THE MOST FOR
THAT PART.*/
SELECT P.PID, S.SNAME
FROM PARTS P, SUPPLIERS S, CATALOG C
WHERE C.PID = P.PID
AND C.SID = S.SID
AND C.COST = (SELECT MAX(C1.COST)
FROM CATALOG C1
WHERE C1.PID = P.PID);

/* FIND THE SIDS OF SUPPLIERS WHO SUPPLY ONLY RED PARTS.*/
SELECT DISTINCT C.SID
FROM CATALOG C
WHERE NOT EXISTS ( SELECT *
FROM PARTS P
WHERE P.PID = C.PID AND P.COLOR <> 'RED');
```















