USN: 1BM19CS174

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Queries:

```
create
database
supplier:
```

```
supplier;
            use supplier;
            create table SUPPLIERS(sid integer, sname varchar(20), address
            varchar(40),primary key(sid));
            INSERT INTO `supplier`.`suppliers` (`sid`, `sname`, `address`) VALUES
            ('10001', 'Acme Widget', 'Bangalore');
            INSERT INTO `supplier`.`suppliers` (`sid`, `sname`, `address`) VALUES
            ('10002', 'Johns', 'Kolkata');
            INSERT INTO `supplier`.`suppliers` (`sid`, `sname`, `address`) VALUES
            ('10003', 'Vimal', 'Mumbai');
            INSERT INTO `supplier`.`suppliers` (`sid`, `sname`, `address`) VALUES
            ('10004', 'Reliance', 'Delhi');
            commit;
            select* from SUPPLIERS;
            create table PARTS(pid integer, pname varchar(20), color varchar(30), primary
            key(pid));
            INSERT INTO `supplier`.`parts` (`pid`, `pname`, `color`) VALUES ('20001',
            'Book', 'Red');
            INSERT INTO `supplier`.`parts` (`pid`, `pname`, `color`) VALUES ('20002',
            'Pen', 'Red');
            INSERT INTO `supplier`.`parts` (`pid`, `pname`, `color`) VALUES ('20003',
            'Pencil', 'Green');
            INSERT INTO `supplier`.`parts` (`pid`, `pname`, `color`) VALUES ('20004',
            'Mobile', 'Green');
            INSERT INTO `supplier`.`parts` (`pid`, `pname`, `color`) VALUES ('20005',
            'Charger', 'Black');
            commit;
            select* from PART;
            create table CATALOG(sid integer, pid integer, foreign key(sid) references
            SUPPLIERS(sid), foreign key(pid) references PARTS(pid),
            cost integer,primary key(sid,pid));
            INSERT INTO `supplier`.`catalog` (`sid`, `pid`, `cost`) VALUES ('10001',
            '20001', '10');
```

```
INSERT INTO `supplier`.`catalog` (`sid`, `pid`, `cost`) VALUES ('10001',
'20002', '10');
INSERT INTO `supplier`.`catalog` (`sid`, `pid`, `cost`) VALUES ('10001',
'20003', '30');
INSERT INTO `supplier`.`catalog` (`sid`, `pid`, `cost`) VALUES ('10001',
'20004', '10');
INSERT INTO `supplier`.`catalog` (`sid`, `pid`, `cost`) VALUES ('10001',
'20005', '10');
INSERT INTO `supplier`.`catalog` (`sid`, `pid`, `cost`) VALUES ('10002',
'20001', '10');
INSERT INTO `supplier`.`catalog` (`sid`, `pid`, `cost`) VALUES ('10002',
'20002', '20');
INSERT INTO `supplier`.`catalog` (`sid`, `pid`, `cost`) VALUES ('10003',
'20003', '30');
INSERT INTO `supplier`.`catalog` (`sid`, `pid`, `cost`) VALUES ('10004',
'20003', '40');
commit;
select* from CATALOG;
```

Catalogue Table:

	sid	pid	cost
١	10001	20001	10
	10001	20002	10
	10001	20003	30
	10001	20004	10
	10001	20005	10
	10002	20001	10
	10002	20002	20
	10003	20003	30
	10004	20003	40
	NULL	NULL	NULL

Parts Table:

	pid	pname	color
•	20001	Book	Red
	20002	Pen	Red
	20003	Pencil	Green
	20004	Mobile	Green
	20005	Charger	Black
	NULL	NULL	NULL

Suppliers Table:

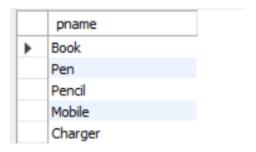
	sid	sname	address
•	10001	Acme Widget	Bangalore
	10002	Johns	Kolkata
	10003	Vimal	Mumbai
	10004	Reliance	Delhi
	NULL	NULL	NULL

ADDITIONAL QUERIES

Query 1:

SELECT DISTINCT P.pname
FROM Parts P, Catalog C
WHERE P.pid = C.pid;

Output:

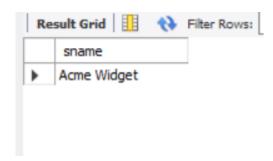


Query 2:

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));

Output:



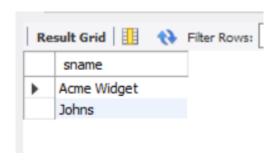
Query 3:

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)));

Output:



Query 4:

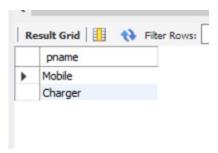
select P.pname from PARTS P, CATALOG C, SUPPLIERS S

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');

Output:



Query 5:

SELECT DISTINCT C.sid FROM Catalog C

WHERE C.cost > (SELECT AVG (C1.cost)

FROM Catalog C1

WHERE C1.pid = C.pid);

Output:



Query 6:

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);

