

Queries:

```
create
database
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
▶	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:

	pname
▶	Book
	Pen
	Pencil
	Mobile
	Charger

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:

Result Grid		Filter Rows:
	sname	
▶	Acme Widget	

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:

Result Grid		Filter Rows:
	sname	
▶	Acme Widget	
	Johns	

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:

Result Grid		Filter Rows:
	pname	
▶	Mobile	
	Charger	

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:

	sid
▶	10002
	10004

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);
```

	pid	sname
▶	20001	Acme Widget
	20004	Acme Widget
	20005	Acme Widget
	20001	Johns
	20002	Johns
	20003	Reliance