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SUPPLIER DATABASE MANAGAMENT

```
use supplier;
create table supplier(
      sid int not null,
      sname varchar(20) not null,
      address varchar(30) not null,
      primary key(sid)
      );


      create table parts(
            pid int not null,
            pname varchar(20),
            color varchar(10),
            primary key(pid)
           );

      create table catalog(
            sid int not null,
            pid int not null,
            cost real not null,
            foreign key(sid) references supplier(sid) on delete cascade,
            foreign key(pid) REFERENCES parts(pid) on delete CASCADE
            );


      insert into supplier
      (sid,sname,address)
      VALUES
      (1,'AWS','DELHI'),
      (2,'BWS','SURAT');
```

←T→

			sid	sname	address
Edit	Copy	Delete	1	AWS	DELHI
Edit	Copy	Delete	2	BWS	SURAT

```
      insert into parts
      (pid, pname, color)
      VALUES
      (1,'A','RED'),
      (2,'B', 'RED'),
      (3,'C','BLUE'),
      (4,'D','GREEN');

      SELECT * from parts
```

+ Options

←T→

			pid	pname	color
Edit	Copy	Delete	1	A	RED
Edit	Copy	Delete	2	B	RED

Edit	Copy	Delete	3	C	BLUE
Edit	Copy	Delete	4	D	GREEN

```
insert into catalog
(sid,pid,cost)
VALUES
      (1,1,100),
      (1,2,200),
      (2,2,300),
      (2,3,400),
      (2,4,250);

select * from catalog;
```

sid	pid	cost
1	1	100
1	2	200
2	2	300
2	3	400
2	4	250

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;
```

←T→			pname
Edit	Copy	Delete	A
Edit	Copy	Delete	B
Edit	Copy	Delete	C
Edit	Copy	Delete	D

2. Find the snames of suppliers who supply every part.

insert into catalog
(sid, pid, cost)
VALUES
(2,1,150);

Select * from catalog;

sid	pid	cost
1	1	100
1	2	200
2	2	300
2	3	400
2	4	250
2	1	150

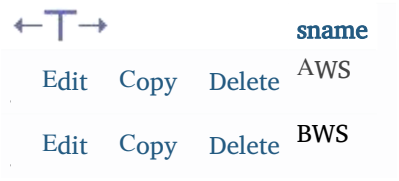
```
SELECT s.sname
FROM supplier s
WHERE NOT EXISTS (( SELECT p.pid
FROM parts p )
EXCEPT
( SELECT c.pid
FROM catalog c
WHERE c.sid = s.sid ));
```

←T→		sname
Edit	Copy Delete	BWS

3.Find the snames of suppliers who supply every red part.

```
SELECT S.sname
FROM supplier S
WHERE NOT EXISTS (( SELECT P.pid
FROM parts P
WHERE P.color = 'RED')
EXCEPT
( SELECT C.pid
FROM catalog C, parts P
WHERE C.sid = S.sid AND
```

C. pid = P.pid AND P.color = 'RED'))



←T→			sname
Edit	Copy	Delete	AWS
Edit	Copy	Delete	BWS

4. Find the pnames of parts supplied by Acme Widget Suppliers and by no one else.

```
SELECT P.pname
FROM parts P, catalog C, supplier S
WHERE P.pid = C.pid AND C.sid = S.sid
AND S.sname = 'AWS'
AND NOT EXISTS ( SELECT *
FROM catalog C1, supplier S1
WHERE P.pid = C1.pid AND C1.sid = S1.sid AND
S1.sname <> 'AWS' )
```

pname

5. 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 )
```

sid
2

6.For each part, find the sname of the supplier who charges the most for that part.

```
SELECT P.pid, S.sname
FROM parts P, supplier 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
2	BWS
3	BWS
4	BWS
1	BWS

7.Find the sids of suppliers who supply only red parts.

```
select c.SID
from catalog c JOIN
       parts p
       ON c.PID = p.PID
group by c.SID
having min(p.color) = max(p.color) and
         min(p.color) = 'RED'
```

SID
1