

SUPPLIER DATABASE

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DBMS LAB 6

```
create database supplier;

use supplier;

create table supplier(sid int primary key, sname varchar(50), address varchar(100));

create table parts(pid int primary key, pname varchar(50), colour varchar(100));

create table catalog(sid int, pid int, cost decimal(10,2), primary key(sid,pid),foreign key(sid)
references supplier(sid),foreign key(pid) references parts(pid));

insert into supplier values

(1,"Aone widget suppliers","Bangalore"),

(2,"Global industries","Chennai"),

(3,"National parts co","Delhi"),

(4,"Relaible supplies","Mumbai");

insert into parts values

(101,"Bolt","Red"),

(102,"Nut","Green"),

(103,"Screw","Red"),

(104,"Washer","Blue"),

(105,"Log","Red");

insert into catalog values

(1,101,12.50),

(1,103,10.00),

(2,101,11.00),

(2,104,9.50),

(3,102,7.75),

(3,105,15.00),

(4,103,8.00),

(4,104,9.75);
```

Queries

-- Find the pnames of parts for which there is some supplier.

```
select p.pname  
from parts p, supplier s, catalog c  
where p.pid=c.pid and s.sid=c.sid  
group by p.pname;
```

pname
Bolt
Screw
Washer
Nut
Log

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

```
select s.sname  
from supplier s, catalog c  
where s.sid=c.sid  
group by s.sid  
having count(distinct c.pid)=(select count(pid) from catalog);
```

sname
Aone widget suppliers
Global industries
Relaible supplies
National parts co

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

```
select s.sname  
from supplier s,catalog c, parts p  
where s.sid=c.sid and p.pid=c.pid and p.colour="Red"  
group by s.sname;
```

sname
Aone widget suppliers
Global industries
Relaible supplies
National parts co

-- Find the pnames of parts supplied by Aone 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="Aone widget suppliers";
```

pname
Bolt
Screw

-- 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 s.sid  
from supplier s, parts p, catalog c  
where s.sid=c.sid and p.pid=c.pid and c.cost>(select avg(c.cost) from catalog c where c.pid=p.pid  
group by c.pid);
```

sid
1
1
4

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

```
select s.sname, p.pname  
from supplier s,catalog c, parts p  
where s.sid=c.sid and c.pid=p.pid and c.cost=(select max(c.cost) from catalog c where  
c.pid=p.pid group by c.pid);
```

sname
Aone widget suppliers
Aone widget suppliers
National parts co
National parts co
Reliable supplies