

# DBMS LAB-7

## SUPPLIER DATABASE

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### 1) CREATION OF TABLES

use suj;

```
create table supplier( sid int primary key,  
                        snam varchar(30),  
                        city varchar(30));
```

```
create table parts(pid int primary key,  
                   pname varchar(20),  
                   colour varchar(20));
```

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

### 2)INSERTION OF VALUES

```
insert into supplier  
values(1,"emily","bangalore"),(2,"chino","mumbai"),(3,"drake","delhi"),(4,"dickinson","chennai"),(5,"  
rajesh","bangalore");
```

```
insert into parts  
values(11,"tubelight","white"),(12,"fan","blue"),(13,"light","black"),(14,"fridge","grey"),(15,"washing  
machine","red");
```

```
insert into catalog
values(1,11,10000),(2,11,5000),(3,12,4000),(4,13,40000),(5,11,3000),(1,12,5000),(2,13,4000),(5,15,30000),(4,14,50000),(5,12,10000);
```

### 3) QUERRIES

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

```
select p.pname
from parts p
where pid in (select pid from catalog);
```

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

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

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

```
select s.snam
from supplier s, parts p, catalog c
where s.sid=c.sid and p.pid=c.pid
and colour="red";
```

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

```
select p.pname
from supplier s, parts p, catalog c
where s.sid=c.sid and p.pid=c.pid and s.snam="rajesh"
and p.pid not in (select c1.pid from catalog c1 inner join supplier s1 on c1.sid=s1.sid where
s1.snam<>"rajesh");
```

-- 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, catalog c
where s.sid=c.sid and 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 s.snam,c.pid,c.cost
from supplier s
inner join catalog c
on s.sid = c.sid
inner join (select pid, max(cost) as max_cost from catalog group by (pid)) as m
on c.pid = m.pid
where c.cost = m.max_cost;
```