#### WEEK-7

#### **SUPPLIER DATABASE**

#### To Do List:

1. Using Scheme diagram, create tables by properly specifying the primary keys and the foreign keys.

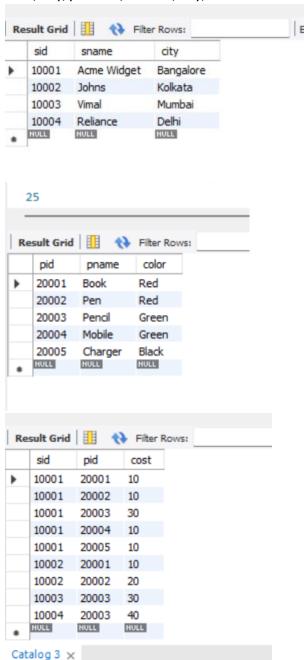
```
create database Supplier;
use Supplier;
create table Supplier
(sid int,
sname varchar(20),
city varchar(10),
primary key(sid));
create table Parts
(pid int,
pname varchar(20),
color varchar(10),
primary key(pid));
create table Catalog
(sid int,
pid int,
cost int,
primary key(sid,pid),
foreign key(sid) references Supplier(sid),
foreign key(pid) references Parts(pid));
```

### 2. Insert appropriate records in each table.

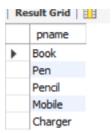
```
insert into Supplier values(10001,'Acme Widget','Bangalore'),(10002,'Johns','Kolkata'),(10003,'Vimal','Mumbai'),(10004,'Reliance','Delhi'); insert into Parts values(20001,'Book','Red'),(20002,'Pen','Red'),(20003,'Pencil','Green'),(20004,'Mobile','Green'),(20005,'Charger','Black');
```

## insert into Catalog

values(10001,20001,10),(10001,20002,10),(10001,20003,30),(10001,200 04,10),(10001,20005,10),(10002,20001,10),(10002,20002,20),(10003,20 003,30),(10004,20003,40);

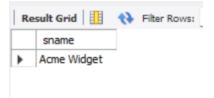


**3. Find the pnames of parts for which there is some supplier.** select distinct p.pname from Parts p,Catalog c where p.pid=c.pid;



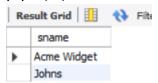
## 4. Find the snames of suppliers who supply every part.

select sname from Supplier where sid in (select sid from Catalog group by sid having count(distinct pid)=(select count(pid) from Parts));



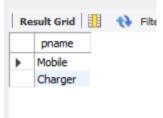
## 5. Find the snames of suppliers who supply every red part.

select sname from Supplier where sid in (select sid from Catalog c,Parts p where c.pid=p.pid and p.color='Red' group by sid having count(distinct p.pid)=(select count(\*) from Parts where color='Red'));



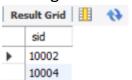
# 6. Find the pnames of parts supplied by Acme Widget Suppliers and by no one else.

select pname from Parts where pid in (select w.pid from (select pid from Catalog group by pid having count(distinct sid)=1) w, Catalog c1,Supplier s1 where w.pid=c1.pid and c1.sid=s1.sid and s1.sname='Acme widget');



7. 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);



8. 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);

