WEEK 7

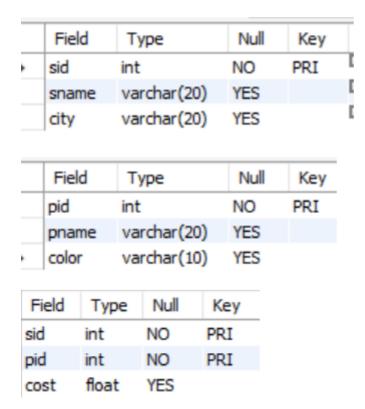
1. Using Scheme diagram, Create tables by properly specifying the primary keys and the foreign keys.

create database shop2;
use shop2;

create table suppliers (sid int primary key, sname varchar(20), city varchar(20)); desc suppliers;

create table parts (pid int primary key,pname varchar(20),color varchar(10)); desc parts;

create table catalog (sid int ,pid int ,foreign key(sid) references suppliers(sid),foreign key(pid) references parts(pid),cost float, primary key(sid, pid)); desc catalog;



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2. Insert appropriate records in each table.
insert into suppliers
values(10001, "Acme Widget", "Bangalore"),
(10002, "Johns", "Kolkata"),
(10003, "Vimal", "Mumbai"),
(10004, "Reliance", "Delhi"),
(10005,"Mahindra","Mumbai");
 select *from suppliers;
insert into parts
values(20001, "Book", "Red"),
(20002, "Pen", "Red"),
(20003, "Pencil", "Green"),
(20004, "Mobile", "Green"),
(20005, "Charger", "Black");
select *from parts;
insert into catalog values
(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);
select *from catalog;
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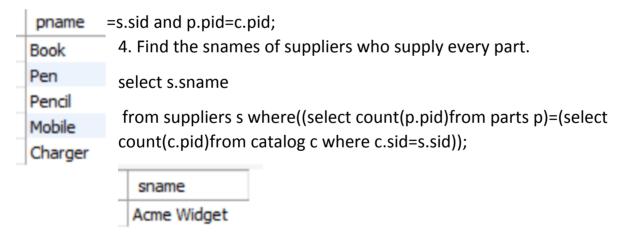
sid	sname	city		
10001	Acme Widget	Bangalore		
10002	Johns Kolkata			
10003	Vimal	Mumbai		
10004	Reliance	Delhi		
10005	Mahindra	Mumbai		

pid	pname	color	sid	pid	cost
20001	Book	Red	10001	20001	10
20002	Pen	Red	10001	20002	10
20003	Pencil	Green	10001	20003	30
20004	Mobile	Green	10001	20004	10
			10001	20005	10
20005	Charger	Black	10002	20001	10
			10002	20002	20
			10003	20003	30
			10004	20003	40

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

select distinct pname

from parts p, catalog c, suppliers s

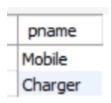


5. Find the snames of suppliers who supply every red part. select distinct s.sname from catalog c, parts p, suppliers s where s.sid=c.sid and p.pid=c.pid and color="Red";

sname	
Acme Widget	
Johns	

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

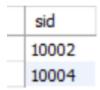
select pname from parts P,Catalog c,suppliers s
where p.pid=c.pid and c.sid=s.sid and s.sname ="Acme Widget"
and not exists(select * from catalog c1,suppliers s1
where p.pid=c1.pid and c1.sid=s1.sid and s1.sname <> "Acme Widget");



7. Find the sids of suppliers who charge more for some part than the average cost of 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 suppliers s, catalog c, parts p

where c.pid=p.pid and s.sid=c.sid and c.cost=(select max(c1.cost)

from catalog c1

where c1.pid=p.pid)

order by s.sname;

