Program-7: Supplier Database

```sql
create database supplierdb;

use supplierdb;


create table supplier (
  sid varchar(5) primary key,
  sname varchar(50),
  city varchar(50)
);


create table parts (
  pid varchar(5) primary key,
  pname varchar(50),
  color varchar(20)
);


create table catalog (
  sid varchar(5),
  pid varchar(5),
  cost decimal(10,2),
  primary key (sid, pid),
  foreign key (sid) references supplier(sid),
  foreign key (pid) references parts(pid)
);


insert into supplier values
('s1', 'acme widget suppliers', 'new york'),
('s2', 'global parts ltd', 'london'),
```

```sql
('s3', 'zenith components', 'tokyo'),

('s4', 'universal supplies', 'delhi'),

('s5', 'prime industries', 'berlin');


insert into parts values

('p1', 'bolt', 'red'),

('p2', 'nut', 'blue'),

('p3', 'screw', 'green'),

('p4', 'washer', 'red'),

('p5', 'gear', 'black');


insert into catalog values

('s1', 'p1', 120.00),

('s1', 'p2', 150.00),

('s2', 'p1', 130.00),

('s2', 'p3', 100.00),

('s3', 'p4', 140.00),

('s3', 'p5', 200.00),

('s4', 'p2', 160.00),

('s4', 'p3', 110.00),

('s5', 'p1', 125.00),

('s5', 'p5', 220.00);
```

select* from supplier;

sid	sname	city
s1	acme widget suppliers	new york
s2	global parts ltd	london
s3	zenith components	tokyo
s4	universal supplies	delhi
s5	prime industries	berlin
NULL	NULL	NULL

select* from parts;
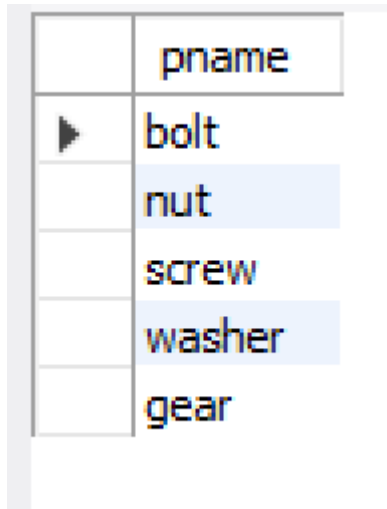
pid	pname	color
p1	bolt	red
p2	nut	blue
p3	screw	green
p4	washer	red
p5	gear	black
NULL	NULL	NULL

select* from catalog;

sid	pid	cost
s1	p1	120.00
s1	p2	150.00
s2	p1	130.00
s2	p3	100.00
s3	p4	140.00
s3	p5	200.00
s4	p2	160.00
s4	p3	110.00
s5	p1	125.00
s5	p5	220.00
NULL	NULL	NULL

QUERIES:

select distinct p.pname

from parts p, catalog c

where p.pid = c.pid;

	pname
▶	bolt
	nut
	screw
	washer
	gear

select s.sname

from supplier s

where not exists (select *

 from parts p

 where not exists (

  select *

  from catalog c

  where c.sid = s.sid

  and c.pid = p.pid

)

);

```
select s.sname
from supplier s
where not exists (
  select *
  from parts p
  where p.color = 'red'
  and not exists (
    select *
    from catalog c
    where c.sid = s.sid
    and c.pid = p.pid
  )
);
```
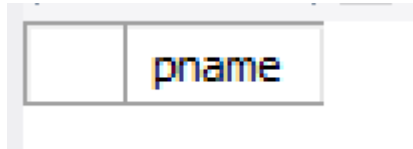
```
select p.pname
from parts p, catalog c, supplier s
where s.sid = c.sid
and c.pid = p.pid
and s.sname = 'acme widget suppliers'
and p.pid not in (
  select c2.pid
  from catalog c2, supplier s2
```

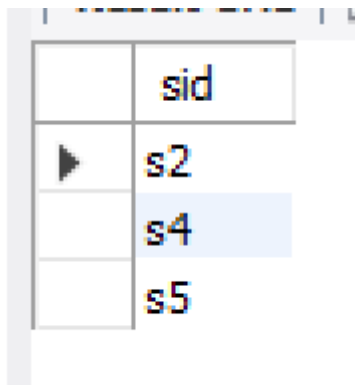where c2.sid = s2.sid

and s2.sname <> 'acme widget suppliers'

);

	pname

select distinct c1.sid

from catalog c1

where c1.cost > (

  select avg(c2.cost)

  from catalog c2

  where c2.pid = c1.pid

);

	sid
▶	s2
	s4
	s5

select p.pname, s.sname

from supplier s, catalog c, parts p

where s.sid = c.sid

and p.pid = c.pid

and c.cost = (

  select max(c2.cost)

  from catalog c2

where c2.pid = p.pid

);

	pname	sname
▶	bolt	global parts ltd
	washer	zenith components
	nut	universal supplies
	screw	universal supplies
	gear	prime industries