LAB-3

SUPPLIERS DATABASE :

Consider the following schema:
SUPPLIERS (sid: integer, sname: string, address: string)
PARTS (pid: integer, pname: string, color: string)
CATALOG (sid: integer, pid: integer, cost: real)
The Catalog relation lists the prices charged for parts by Suppliers. Write the following queries in SQL:

```
create database supplier ;
create table suppliers(
sid int,
sname varchar(20) not null,
address varchar(20) not null,
primary key(sid));

create table parts(
pid int,
pname varchar(20) not null,
color varchar(20) not null,
primary key(pid));

create table catalog(
sid int,
pid int,
cost real,
primary key(sid,pid),
foreign key(sid) references suppliers(sid) on delete cascade on update cascade,
foreign key(pid) references parts(pid) on delete cascade on update cascade);


insert into suppliers
values
('1','axe','banglore'),
('2','ben','gangavathi'),
('3','chin','banglore south'),
('4','den','gulburga'),
('5','eleven','bellary');

insert into parts
values('11','A','red'),
```

('12','B','green'),
('13','C','red'),
('14','D','yellow'),
('15','E','orange');

insert into catalog
values('1','11','1000'),
('2','12','2000'),
('3','13','3000'),
('4','14','4000'),
('5','15','5000');

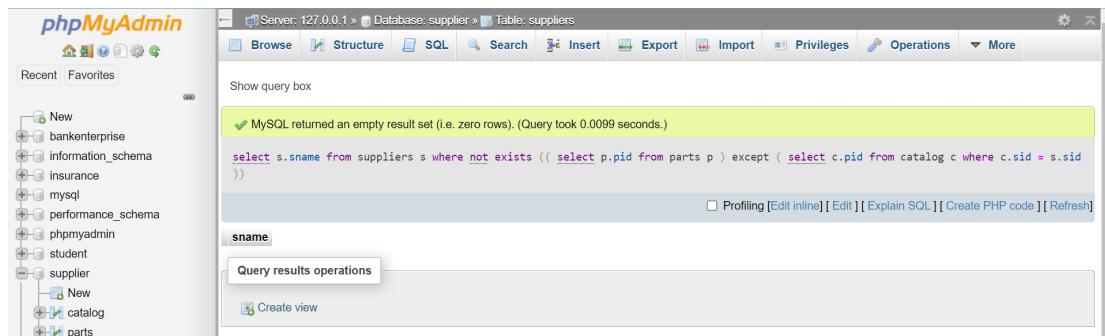### i. Find the pnames of parts for which there is some supplier.

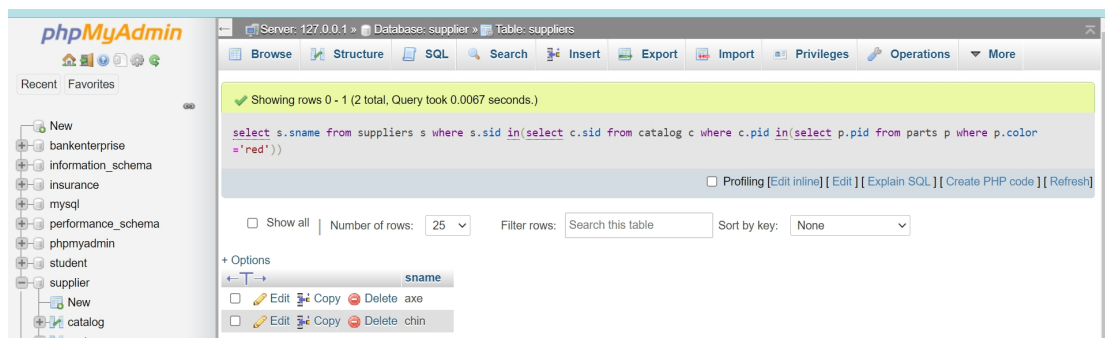Select distinct p.name from parts p,catalog c where p.pid=c.pid;

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

Select s.sname from suppliers s where not exists ((select p.pid from parts p) except (select c.pid from catalog c where c.sid=s.sid));
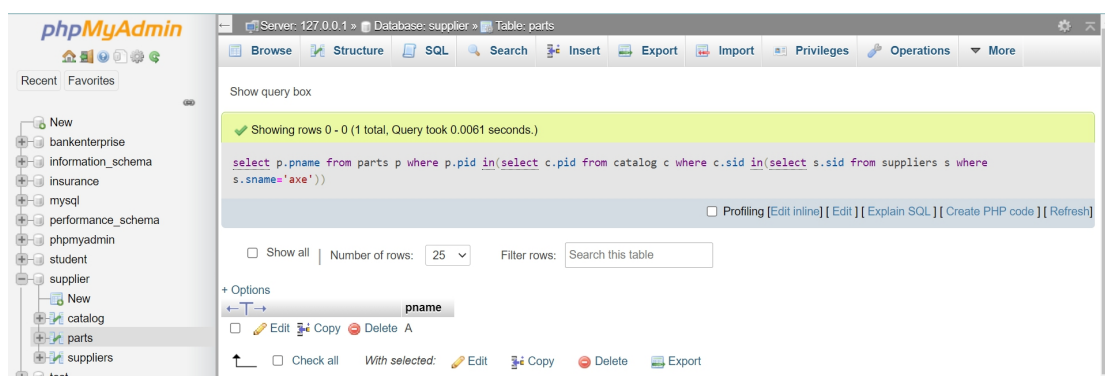
iii. Find the snames of suppliers who supply every red part.

select s.sname from suppliers s where s.sid in select c.sid from catalog c where c.pid in(select p.pid from parts p where p.color='red'));
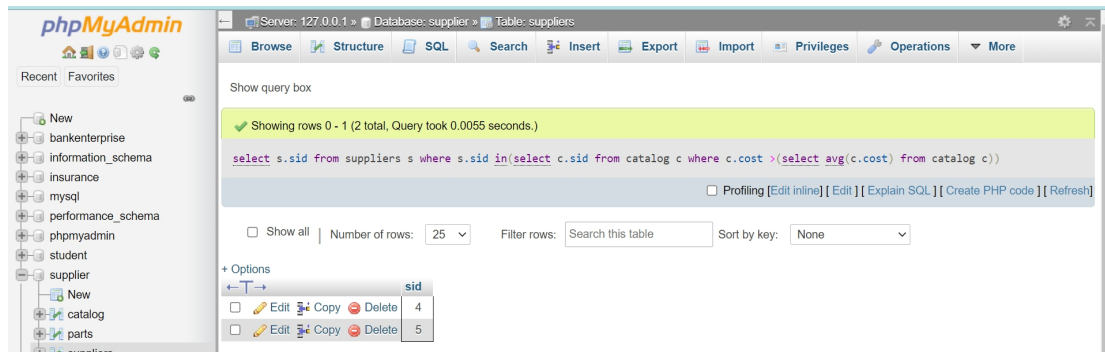

iv. Find the pnames of parts supplied by Axe Suppliers and by no one else.

Select p.pname from parts p where p.pid in (select c.pid from catalog c where c.sid in(select s.sid from suppliers s where s.sname='axe'));
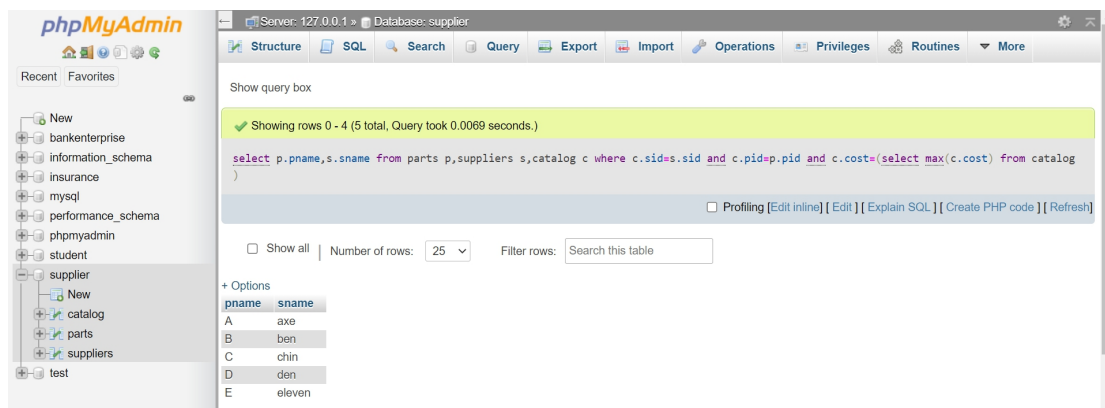
v. Find the sids of suppliers who charge more for some part than the average cost of that part (averaged over   all the suppliers who supply that part).

Select s.sid from suppliers s where s.sid in(select c.sid from catalog c where c.cost>(select avg(c.cost) from catalog c);

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

Select p.pname ,s.sname from parts p ,suppliers s ,catalog c where c.pid =p.pid and c.sid=s.sid and c.cost = (select max(c.cost) from catalog c where c.pid=p.pid);

vii. Find the sids of suppliers who supply only red parts.

SELECT DISTINCT c.sid FROM catalog c WHERE NOT EXISTS (SELECT *FROM parts p WHERE p.pid = c.pid AND p.color = 'red')

New
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student
supplier
New
catalog
parts
suppliers

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Show query box

✓ Showing rows 0 - 2 (3 total, Query took 0.0069 seconds.)

SELECT DISTINCT c.sid FROM catalog c WHERE NOT EXISTS (SELECT *FROM parts p WHERE p.pid = c.pid AND p.color = 'red')

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

+ Options

				sid
☐	Edit	Copy	Delete	2
☐	Edit	Copy	Delete	4
☐	Edit	Copy	Delete	5