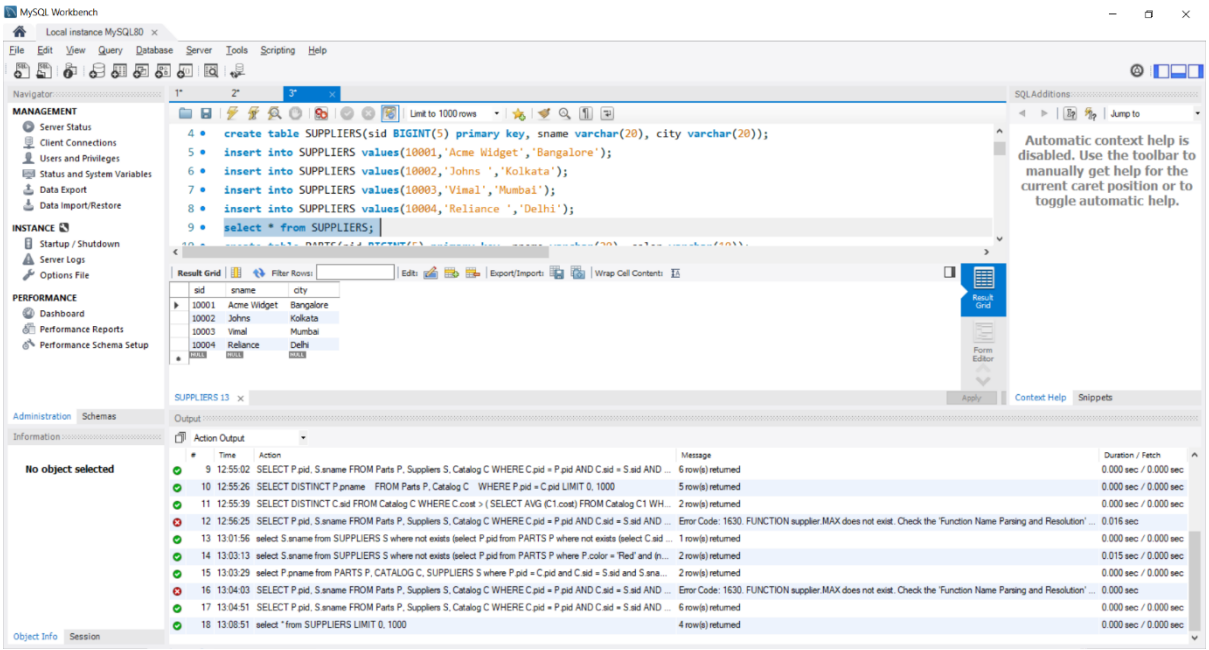
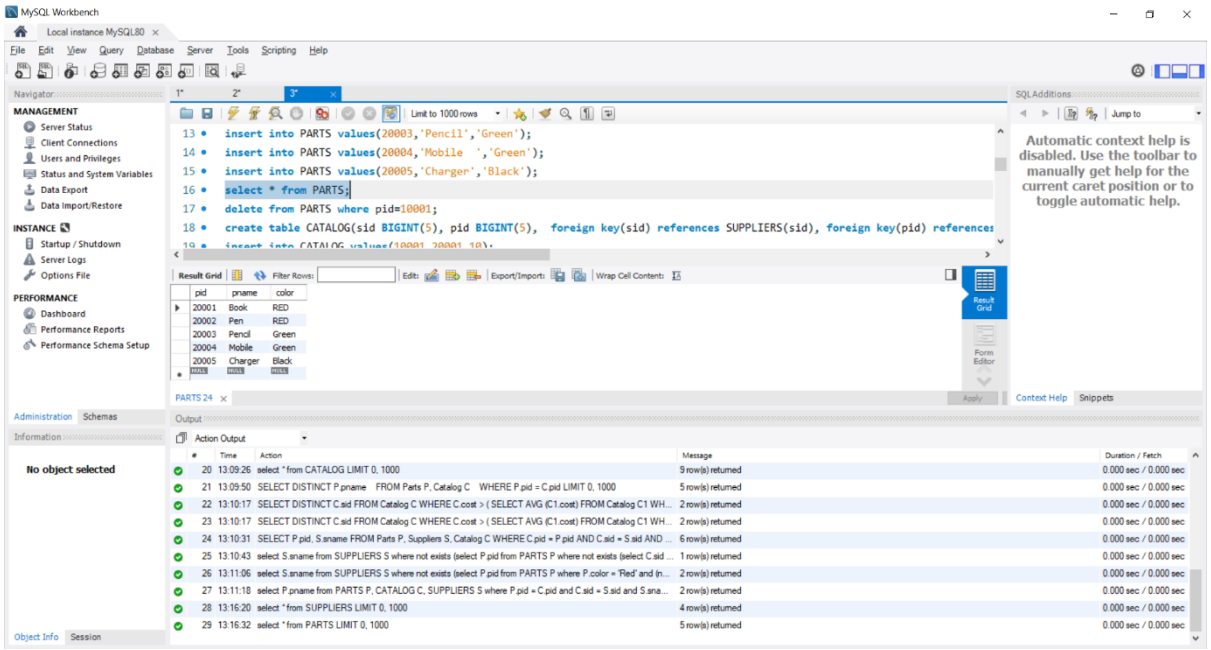
VARSHA.S
1BM19CS179

SUPPLIER DATABASE:

```
create database SUPPLIER;

use SUPPLIER;


create table SUPPLIERS(sid BIGINT(5) primary key, sname varchar(20), city varchar(20));

insert into SUPPLIERS values(10001,'Acme Widget','Bangalore');

insert into SUPPLIERS values(10002,'Johns ','Kolkata');

insert into SUPPLIERS values(10003,'Vimal','Mumbai');

insert into SUPPLIERS values(10004,'Reliance ','Delhi');

select * from SUPPLIERS;
```



```
create table PARTS(pid BIGINT(5) primary key, pname varchar(20), color varchar(10));

insert into PARTS values(20001,'Book','RED');

insert into PARTS values(20002,'Pen','RED');

insert into PARTS values(20003,'Pencil','Green');

insert into PARTS values(20004,'Mobile  ','Green');

insert into PARTS values(20005,'Charger','Black');

select * from PARTS;
```



create table CATALOG(sid BIGINT(5), pid BIGINT(5), foreign key(sid) references SUPPLIERS(sid), foreign key(pid) references PARTS(pid), cost float(6), primary key(sid, pid));

insert into CATALOG values(10001,20001,10);

insert into CATALOG values(10001,20002,10);

insert into CATALOG values(10001,20003,30);

insert into CATALOG values(10001,20004,10);

insert into CATALOG values(10001,20005,10);

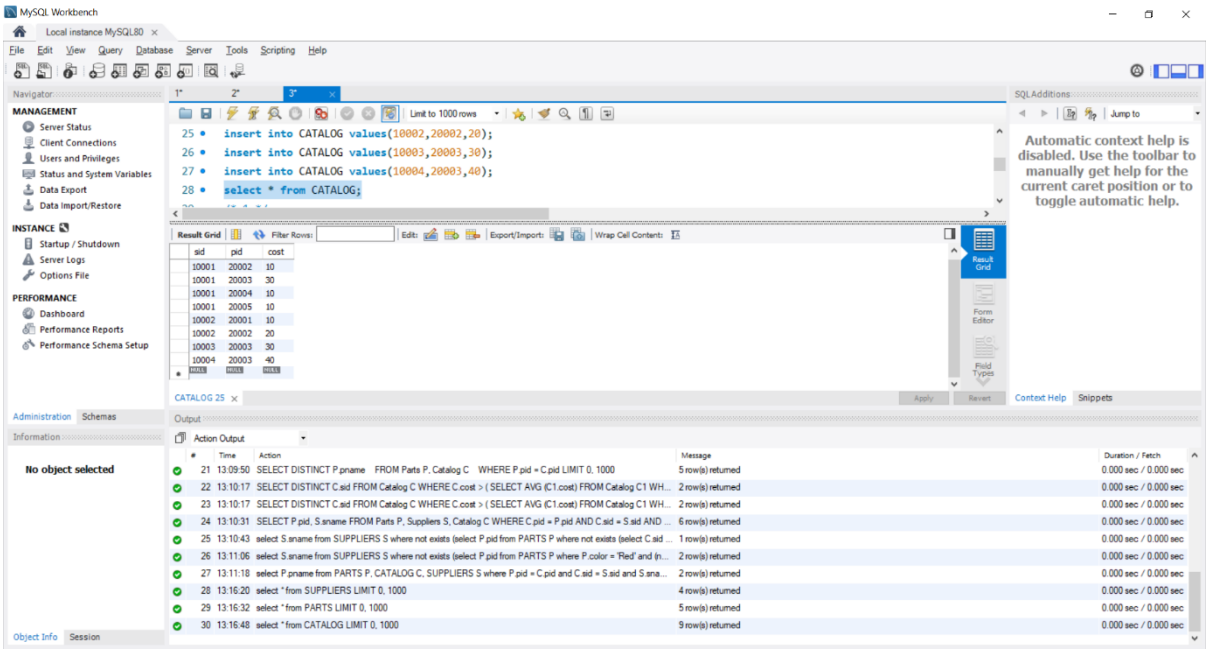
insert into CATALOG values(10002,20001,10);

insert into CATALOG values(10002,20002,20);

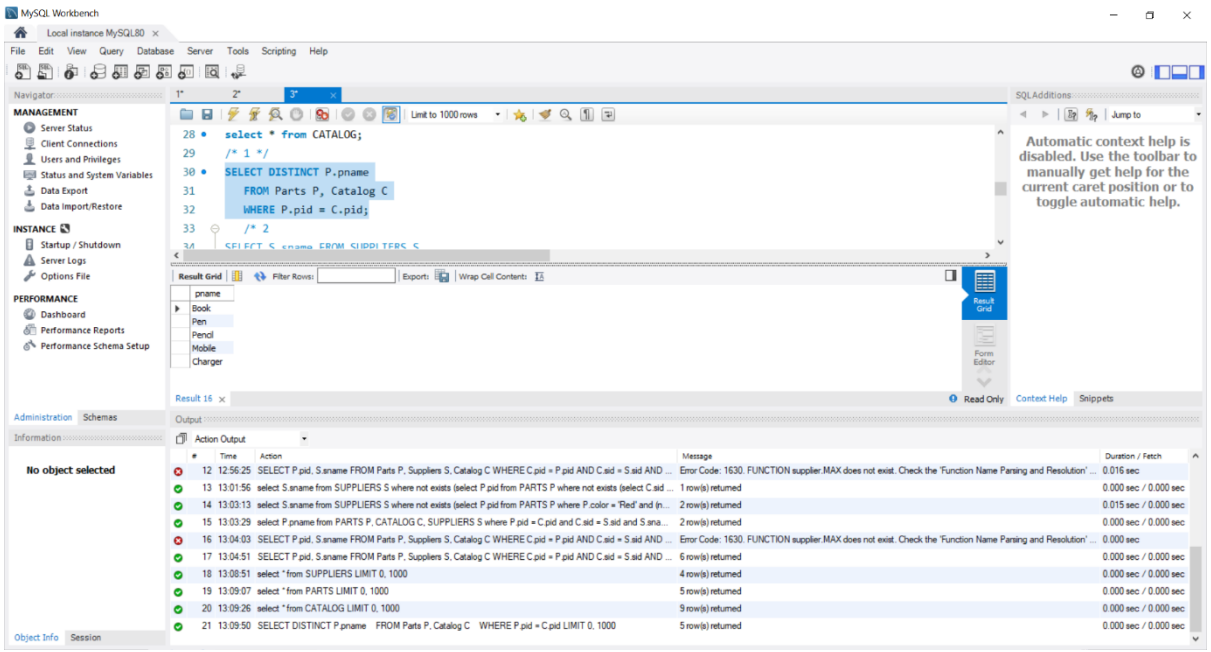
insert into CATALOG values(10003,20003,30);

insert into CATALOG values(10004,20003,40);

select * from CATALOG;

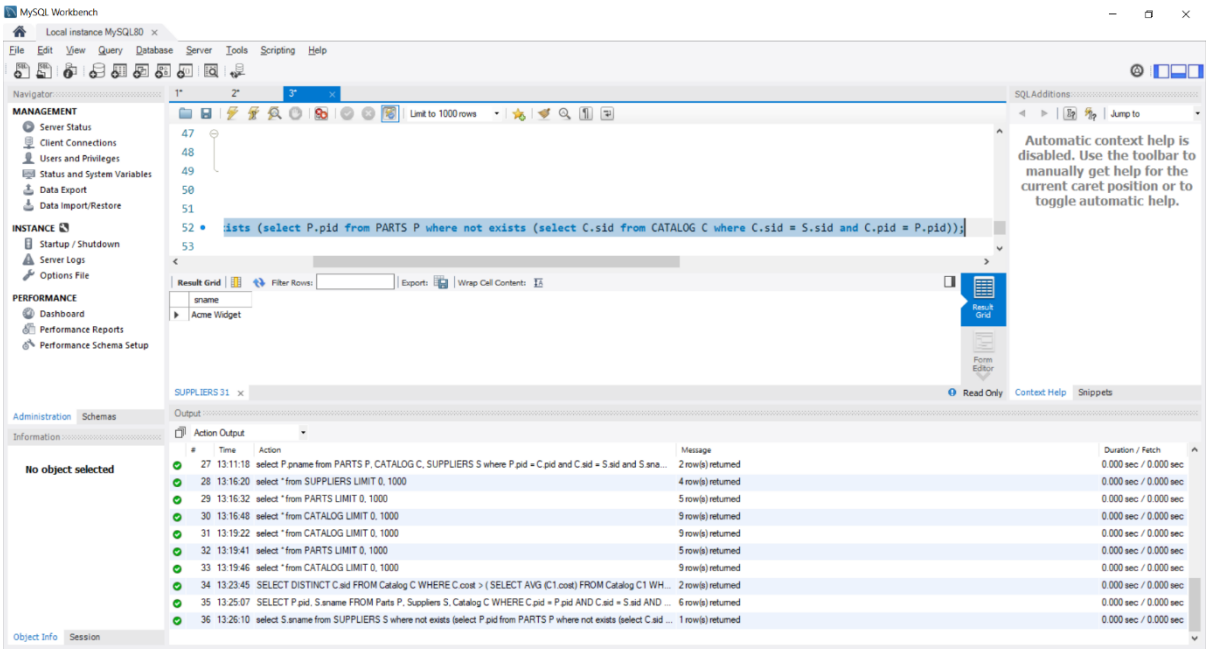


```
/* 1 */
SELECT DISTINCT P.pname
   FROM Parts P, Catalog C
   WHERE P.pid = C.pid;
```



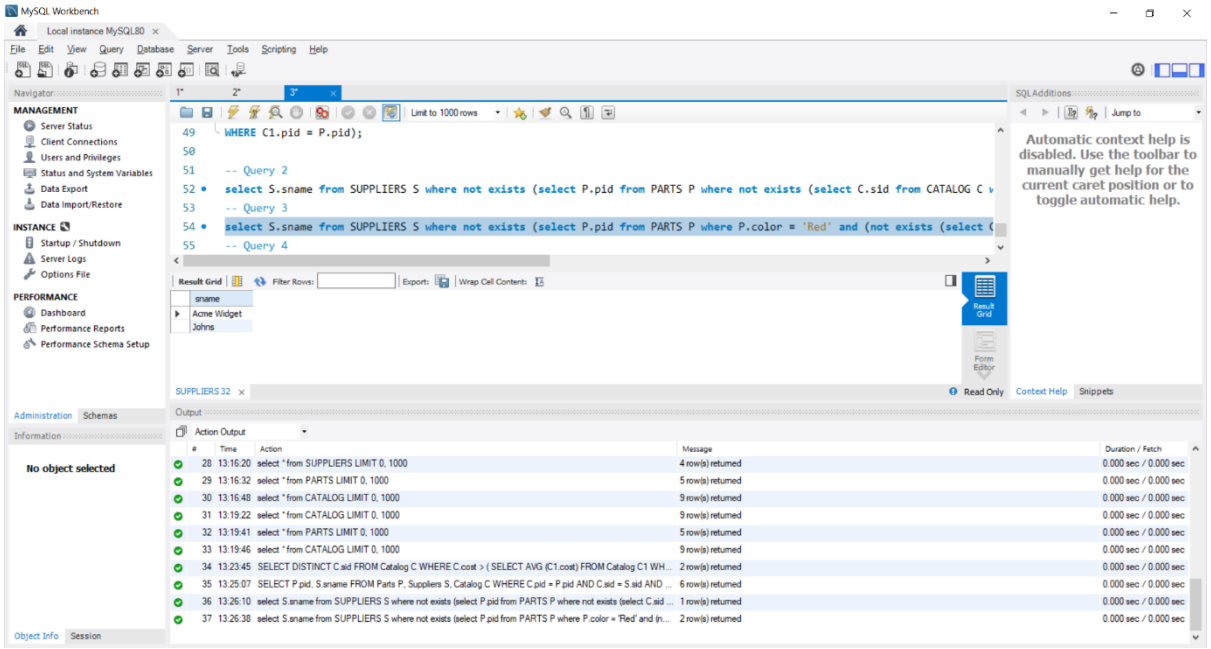
-- Query 2

select S.sname from SUPPLIERS S where not exists (select P.pid from PARTS P where not exists (select C.sid from CATALOG C where C.sid = S.sid and C.pid = P.pid));



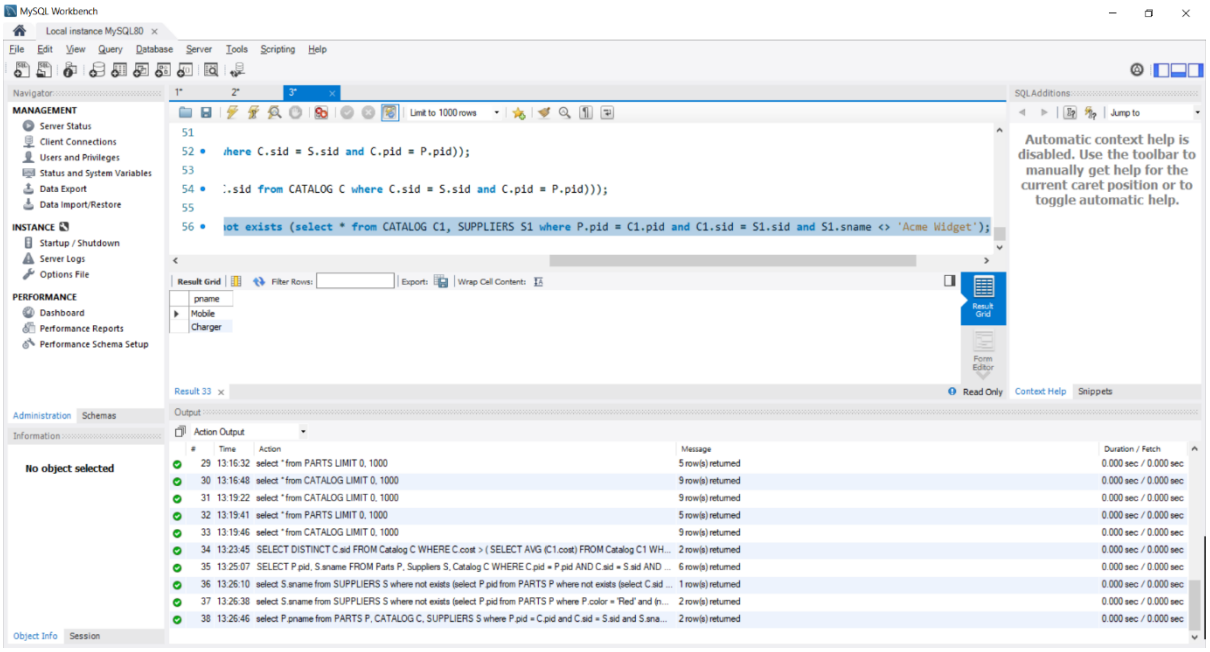
-- Query 3

select S.sname from SUPPLIERS S where not exists (select P.pid from PARTS P where P.color = 'Red' and (not exists (select C.sid from CATALOG C where C.sid = S.sid and C.pid = P.pid)));



-- Query 4

select P.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');



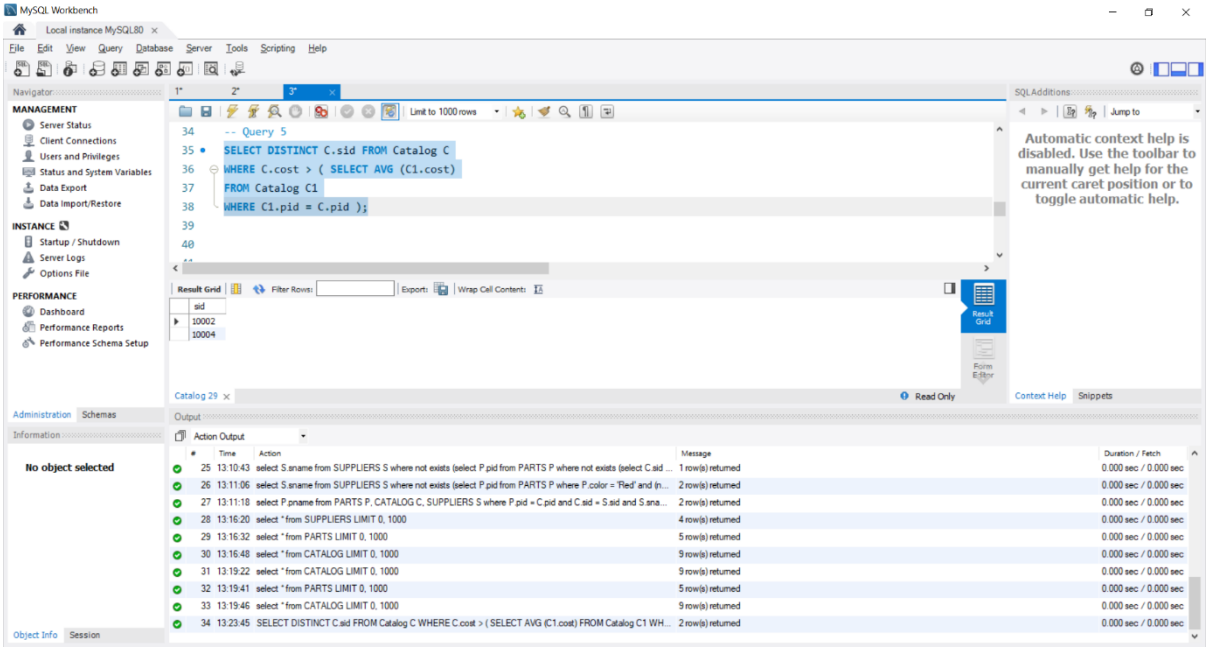
-- Query 5

SELECT DISTINCT C.sid FROM Catalog C

WHERE C.cost > (SELECT AVG (C1.cost)

FROM Catalog C1

WHERE C1.pid = C.pid);



```
-- Query 6

SELECT P.pid, S.sname

FROM Parts P, Suppliers 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);
```