

## WEEK 7

```
create database supplier;  
use supplier;  
create table supplier(  
sid varchar(20),  
sname varchar(20),  
city varchar(20),  
primary key(sid)  
);
```

DESC supplier;

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

```
create table catlog(  
sid varchar(20),  
pid varchar(20),  
cost varchar(20),  
primary key(sid,pid),  
foreign key(pid)references parts(pid),  
foreign key(sid)references supplier(sid)  
);
```

```
insert into supplier values(10001,'acme widget','bangalore');  
insert into supplier values(10002,'johns','kolkata');  
insert into supplier values(10003,'vimal','mumbai');  
insert into supplier values(10004,'reliance','delhi');
```

```
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');
```

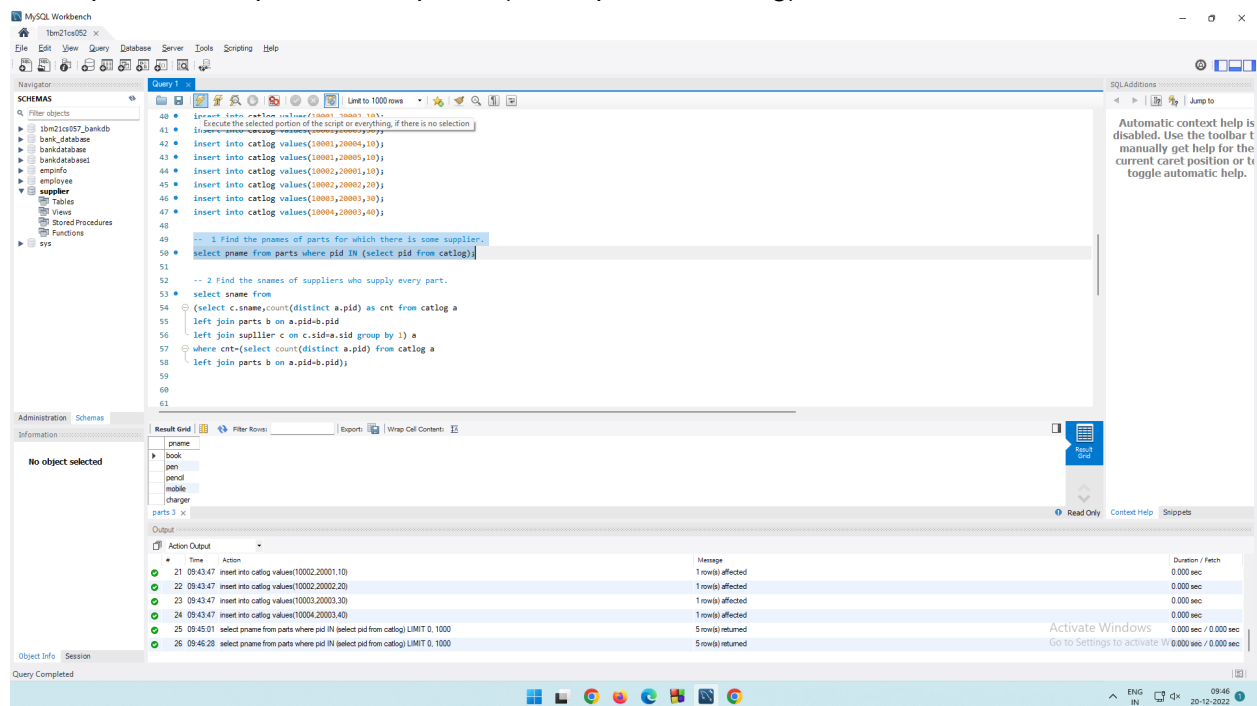
```
insert into catlog values(10001,20001,10);  
insert into catlog values(10001,20002,10);
```

```

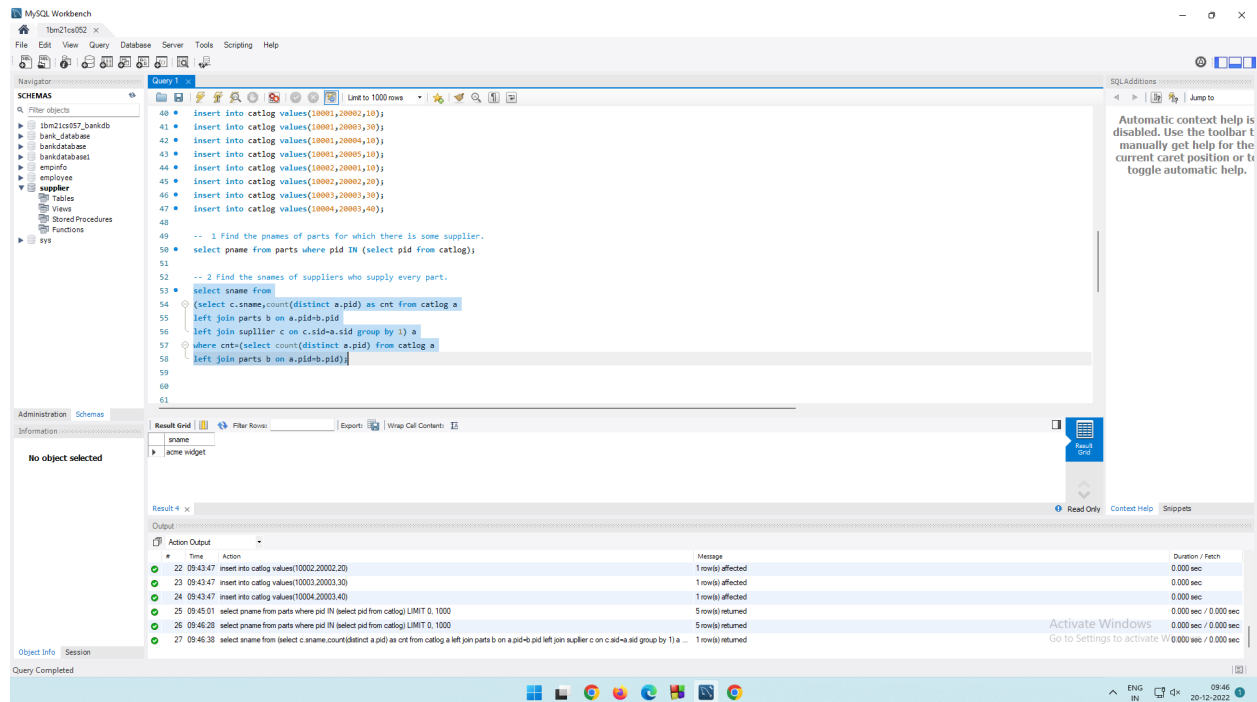
insert into catlog values(10001,20003,30);
insert into catlog values(10001,20004,10);
insert into catlog values(10001,20005,10);
insert into catlog values(10002,20001,10);
insert into catlog values(10002,20002,20);
insert into catlog values(10003,20003,30);
insert into catlog values(10004,20003,40);

```

-- 1 Find the pnames of parts for which there is some supplier.  
select pname from parts where pid IN (select pid from catlog);



-- 2 Find the snames of suppliers who supply every part.  
select sname from  
(select c.sname,count(distinct a.pid) as cnt from catlog a  
left join parts b on a.pid=b.pid  
left join supplier c on c.sid=a.sid group by 1) a  
where cnt=(select count(distinct a.pid) from catlog a  
left join parts b on a.pid=b.pid);



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

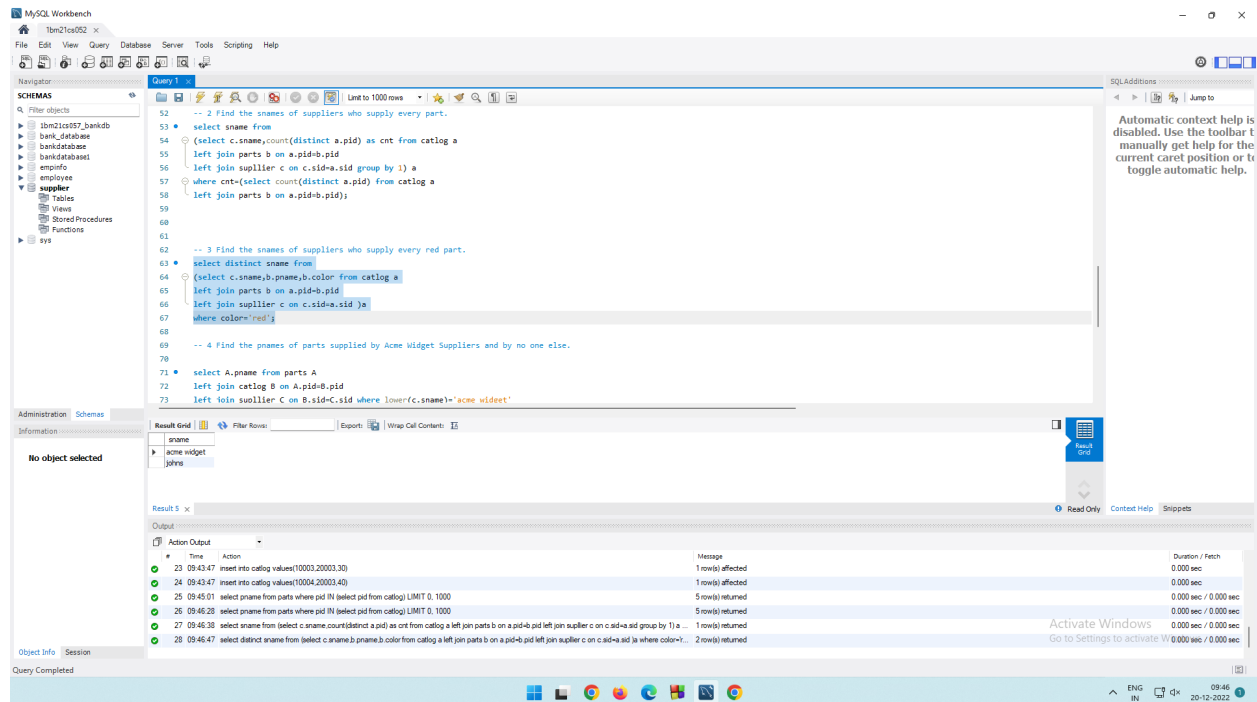
select distinct sname from

(select c.sname,b.pname,b.color from catlog a

left join parts b on a.pid=b.pid

left join supplier c on c.sid=a.sid )a

where color='red';



**-- 4 Find the pnames of parts supplied by Acme Widget Suppliers and by no one else.**

select A.pname from parts A

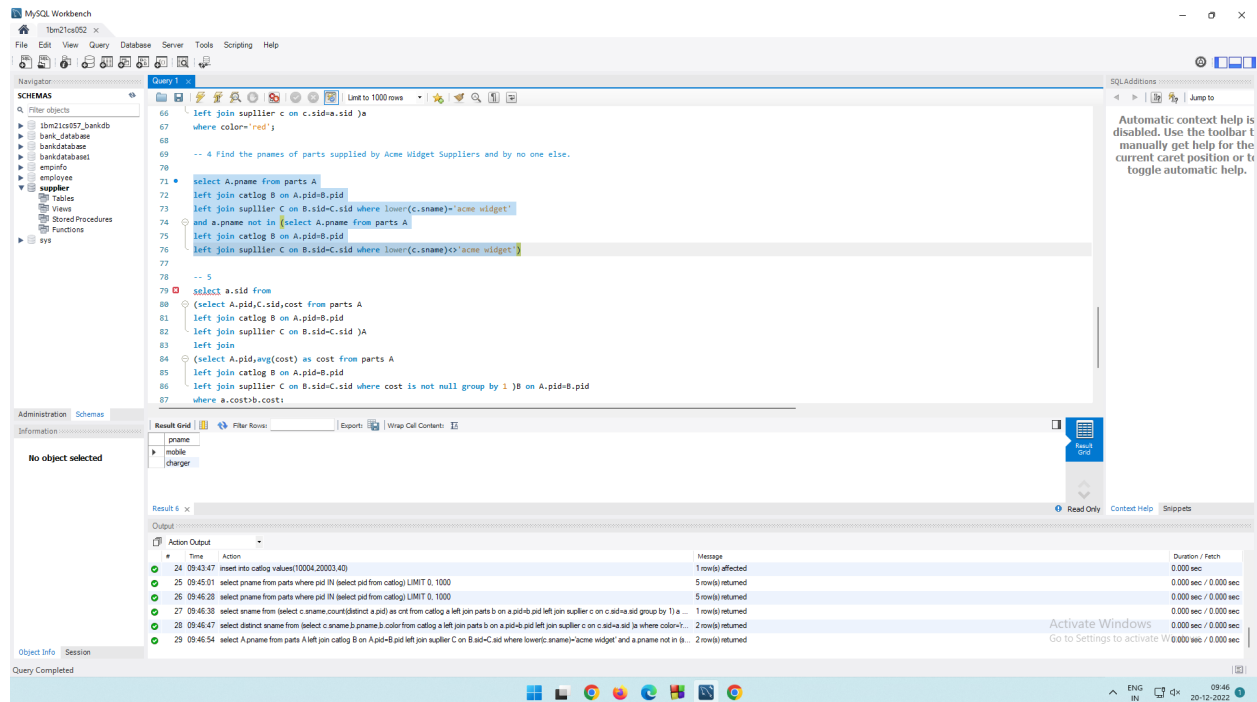
left join catlog B on A.pid=B.pid

left join supplier C on B.sid=C.sid where lower(c.sname)='acme widget'

and a.pname not in (select A.pname from parts A

left join catlog B on A.pid=B.pid

left join supplier C on B.sid=C.sid where lower(c.sname)<>'acme widget')



-- 5

```

select a.sid from
(select A.pid,C.sid,cost from parts A
left join catlog B on A.pid=B.pid
left join supplier C on B.sid=C.sid )A
left join
(select A.pid,avg(cost) as cost from parts A
left join catlog B on A.pid=B.pid
left join supplier C on B.sid=C.sid where cost is not null group by 1)B on A.pid=B.pid
where a.cost>b.cost;

```

MySQL Workbench

1bn21cs052

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHMAS

Filter objects

1bn21cs052\_bankdb

bank\_database

bankdatabase

empinfo

supplier

Tables

Views

Stored Procedures

Functions

sys

Query 1

```

74 and a.pname not in (select A.pname from parts A
75 left join catlog B on A.pid=B.pid
76 left join supllier C on B.sid=C.sid where lower(c.sname)<>'acme widget')
77
78 -- 5
79 select a.sid from
80 (select A.pid,C.sid,cost from parts A
81 left join catlog B on A.pid=B.pid
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83 left join
84 (select A.pid,avg(cost) as cost from parts A
85 left join catlog B on A.pid=B.pid
86 left join supllier C on B.sid=C.sid where cost is not null group by 1 )B on A.pid=B.pid
87 where a.cost<b.cost)
88
89 -- 6 For each part, find the sname of the supplier who charges the most for that part.
90 select pid,sname from
91 (select A.pid,C.sname,cost,rank() over(partition by pid order by cost desc) as rnk from parts A
92 left join catlog B on A.pid=B.pid
93 left join supllier C on B.sid=C.sid)A where rnk=1 and cost is not null order by sname;
94

```

Result Grid

Information

No object selected

Administration Schemas

Output

Action Output

#	Time	Action	Message	Duration / Fetch
25	09:45:01	select sname from parts where pid IN (select pid from catlog) LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
26	09:46:28	select sname from parts where pid IN (select pid from catlog) LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
27	09:46:38	select sname from (select c.sname,count(distinct a.pid) as cnt from catlog a left join parts b on a.pid=b.pid left join supllier c on c.sid=a.sid group by 1) a ...	1 row(s) returned	0.000 sec / 0.000 sec
28	09:46:47	select distinct sname from (select c.sname,b.pname,b.color from catlog a left join parts b on a.pid=b.pid left join supllier c on c.sid=a.sid ja where color=1 ...	2 row(s) returned	0.000 sec / 0.000 sec
29	09:46:54	select A.pname from parts A left join catlog B on A.pid=B.pid left join supllier C on B.sid=C.sid where lower(c.sname)='acme widget' and a.pname not in (a ...	2 row(s) returned	0.000 sec / 0.000 sec
30	09:47:01	select a.sid from (select A.pid,C.sid,cost from parts A left join catlog B on A.pid=B.pid left join supllier C on B.sid=C.sid ja left join (select A.pid,avg(cost) a ...	2 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Query Completed

Automatic context help is disabled. Use the toolbar t manually get help for the current caret position or to toggle automatic help.

Activate Windows Go to Settings to activate W

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MySQL Workbench

1bn21cs052

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHMAS

Filter objects

1bn21cs052\_bankdb

bank\_database

bankdatabase

empinfo

supplier

Tables

Views

Stored Procedures

Functions

sys

Query 1

```

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73
74 and a.pname not in (select A.pname from parts A
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31	09:47:13	select pid,sname from (select A.pid,C.sname,cost,rank() over(partition by pid order by cost desc) as rnk from parts A left join catlog B on A.pid=B.pid left j ...	6 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Query Completed

Automatic context help is disabled. Use the toolbar t manually get help for the current caret position or to toggle automatic help.

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