

## Week-7

```
create database supplier__cs058;
use supplier__cs058;
create table supplier(
sid varchar(20),
sname varchar(20),
city varchar(20),
primary key(sid)
);
```

```
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);

Result Grid			 Filter Rows: <input type="text"/>
	pname		
▶	book		
	pen		
	pencil		
	mobile		
	charger		

**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);

<b>Result Grid</b>		 <b>Filter Rows:</b>
	sname	
	acme widget	

**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 supllier c on c.sid=a.sid )a
where color='red';
```

Result Grid		Filter Rows:
	sname	
▶	acme widget	
	johns	

**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 supllier 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 supllier C on B.sid=C.sid where lower(c.sname)<>'acme
widget')
;
```

Result Grid		Filter Rows:
	pname	
▶	mobile	
	charger	

**5.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).**

Result Grid		Filter Rows:
	sid	
▶	10002	
	10004	

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

```

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 join supplier C on B.sid=C.sid)A where rnk=1 and cost is not null
order by sname;

```

Result Grid			Filter Rows:
	pid	sname	
▶	20001	acme widget	
	20004	acme widget	
	20005	acme widget	
	20001	johns	
	20002	johns	
	20003	reliance	