Week 7

```sql
create database 054_supplier;

use 054_supplier;

create table 054_supplier.Supplier(

sid int,

sname varchar(15),

city varchar(10),

PRIMARY KEY(sid)

);

create table 054_supplier.Parts(

pid int,

pname varchar(10),

color varchar(5),

PRIMARY KEY(pid)

);

create table 054_supplier.Catalog(

sid int,

pid int,

cost int,

PRIMARY KEY(sid, pid),

FOREIGN KEY(sid) REFERENCES Supplier(sid),

FOREIGN KEY(pid) REFERENCES Parts(pid)

);

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 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);

To do

1.select * from Supplier;

```
42 •    select * from Supplier;
```

sid	sname	city
10001	Acme Widget	Bangalore
10002	Johns	Kolkata
10003	Vimal	Mumbai
10004	Reliance	Delhi
NULL	NULL	NULL

Supplier 1 ×

2. select * from Parts;

```
43 •    select * from Parts;
```

pid	pname	color
20001	Book	Red
20002	Pen	Red
20003	Pencil	Green
20004	Mobile	Green
20005	Charger	Black
NULL	NULL	NULL

3. select * from Catalog;

```
44 •    select * from Catalog;
```

sid	pid	cost
10001	20001	10
10001	20002	10
10001	20003	30
10001	20004	10
10001	20005	10
10002	20001	10
10002	20002	20

4. select distinct p.pname

from Parts p, Catalog c

where p.pid = c.pid;

```
45 •      select distinct p.pname
46
47        from Parts p, Catalog c
48
49        where p.pid = c.pid;
```

Result Grid	Filter Rows:
pname
▶ Book
Pen
Pencil
Mobile
Charger

5. SELECT distinct s.sname

FROM Catalog C, Supplier s WHERE C.sid=s.sid and NOT EXISTS (SELECT P.pid FROM Parts P

WHERE NOT EXISTS (SELECT C1.sid FROM Catalog C1

WHERE C1.sid = C.sid and C1.pid = P.pid));

```
50 •      SELECT distinct s.sname
51
52   ⊖    FROM Catalog C, Supplier s WHERE C.sid=s.sid and NOT EXISTS (SELECT P.pid FROM Parts P
53
54   ⊖    WHERE NOT EXISTS (SELECT C1.sid FROM Catalog C1
55
56   ⌐    WHERE C1.sid = C.sid and C1.pid = P.pid));
```

Result Grid	Filter Rows:	Export:	Wrap Cell Content:
sname
▶ Acme Widget

6. SELECT distinct s.sname

FROM Catalog C, Supplier s WHERE C.sid=s.sid and NOT EXISTS (SELECT P.pid FROM Parts P

WHERE P.color="Red" and NOT EXISTS (SELECT C1.sid FROM Catalog C1

WHERE C1.sid = C.sid and C1.pid = P.pid and P.color="Red"));

```
58 •   SELECT distinct s.sname
59
60 ⊖  FROM Catalog C, Supplier s WHERE C.sid=s.sid and NOT EXISTS (SELECT P.pid FROM Parts P
61
62 ⊖  WHERE P.color="Red" and NOT EXISTS (SELECT C1.sid FROM Catalog C1
63
64 └  WHERE C1.sid = C.sid and C1.pid = P.pid and P.color="Red"));
65
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: TA

sname
Acme Widget
Johns

7. select P.pname

from Parts P, Catalog C, Supplier S

WHERE P.pid = C.pid and C.sid = S.sid and S.sname = "Acme Widget"

and NOT EXISTS (select * from Catalog C1, Supplier S1

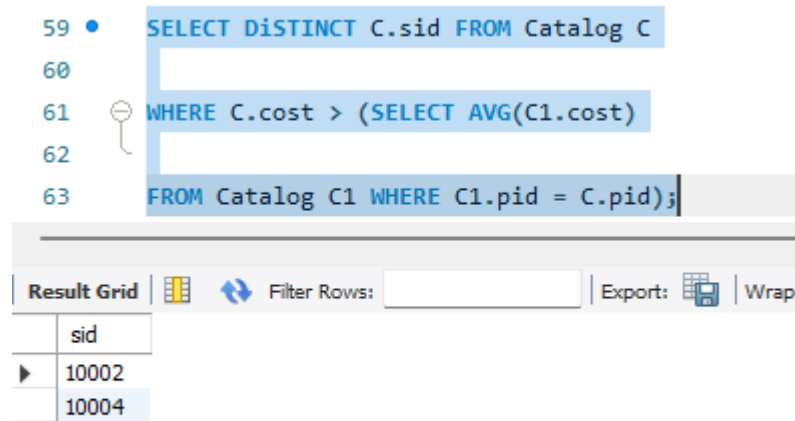WHERE P.pid = C1.pid and C1.sid = S1.sid and

S1.sname != "Acme Widget");

```
57
58 •   select P.pname
59
60     from Parts P, Catalog C, Supplier S
61
62     WHERE P.pid = C.pid and C.sid = S.sid and S.sname = "Acme Widget"
63
64 ⊖  and NOT EXISTS (select * from Catalog C1, Supplier S1
65
66 │  WHERE P.pid = C1.pid and C1.sid = S1.sid and
67 └
68     S1.sname != "Acme Widget");
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: TA

pname
Mobile
Charger

8. SELECT DiSTINCT C.sid FROM Catalog C

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

FROM Catalog C1 WHERE C1.pid = C.pid);

```
59  •      SELECT DiSTINCT C.sid FROM Catalog C
60
61    ⊖   WHERE C.cost > (SELECT AVG(C1.cost)
62
63         FROM Catalog C1 WHERE C1.pid = C.pid);
```

	sid
▶	10002
	10004

9. SELECT P.pid, S.sname

FROM Parts P, Supplier 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);

```sql
64  SELECT P.pid, S.sname

65

66  FROM Parts P, Supplier S, Catalog C

67

68  WHERE C.pid = P.pid AND

69

70  C.sid = S.sid AND

71

72  C.cost = (SELECT MAX(C1.cost)

73

74  FROM Catalog C1

75

76  WHERE C1.pid = P.pid);
```

Result Grid | Filter Rows: | Export:

pid	sname
20001	Acme Widget
20004	Acme Widget
20005	Acme Widget
20001	Johns
20002	Johns
20003	Reliance