

DBMS WEEK 6

- i. Create a database supplier having the tables Supplier, parts, catalog.
- ii. Insert the 5 tuples into each table.

```
28 • select * from supplier;
```

sid	sname	city
1	Acme Widget Suppliers	Bangalore
2	Universal Traders	Delhi
3	Prime Corp	Mumbai
4	Global Supply Co	Chennai
5	National Parts Hub	Hyderabad
NULL	NULL	NULL

```
50 • select * from catalog;
```

sid	pid	cost
1	101	50.00
1	102	80.00
1	103	65.00
1	104	60.00
1	105	95.00
2	101	60.00
3	101	55.00
3	105	95.00
4	103	70.00
5	102	75.00
NULL	NULL	NULL

```
37 • select * from parts;
```

pid	pname	color
101	Bolt	Red
102	Nut	Blue
103	Screw	Red
104	Washer	Green
105	Clamp	Yellow
NULL	NULL	NULL

iii. Find the pnames of parts for which there is some suppliers.

```

52 • SELECT DISTINCT P.pname
53     FROM Parts P, Catalog C
54     WHERE P.pid = C.pid;
55

```

Result Grid

pname
Bolt
Nut
Screw
Washer
Clamp

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

```

55
56 • SELECT s.sname
57     FROM Supplier s
58     WHERE NOT EXISTS (
59         SELECT p.pid
60         FROM Parts p
61         WHERE p.pid NOT IN (
62             SELECT c.pid FROM Catalog c WHERE c.sid = s.sid
63         )
64     );
65
66
67

```

Result Grid

sname
Acme Widget Suppliers

v. Find the snames of supplier who supply every red part.

```

68 • SELECT S.sname
69     FROM Supplier S
70     WHERE NOT EXISTS (
71         SELECT P.pid
72         FROM Parts P
73         WHERE P.color = 'Red'
74         AND P.pid NOT IN (
75             SELECT C.pid
76             FROM Catalog C
77             WHERE C.sid = S.sid
78         )
79     );
80

```

Result Grid

sname
Acme Widget Suppliers

vi. Find the pnames of parts supplied by acheme widget supplier and by no one else.

```

81 • SELECT P.pname
82 FROM Parts P, Catalog C, Supplier S
83 WHERE P.pid = C.pid
84 AND C.sid = S.sid
85 AND S.sname = 'Acme Widget Suppliers'
86 AND P.pid NOT IN (
87     SELECT C1.pid
88     FROM Catalog C1, Supplier S1
89     WHERE C1.sid = S1.sid
90     AND S1.sname <> 'Acme Widget Suppliers'
91 );
92

```

Result Grid

pname
Washer

vii. Find the sides of suppliers who charge more for some part than the average of that part.

```

92
93 • SELECT DISTINCT C.sid
94 FROM Catalog C
95 WHERE C.cost > (
96     SELECT AVG(C1.cost)
97     FROM Catalog C1
98     WHERE C1.pid = C.pid
99 );
100
101 • SELECT P.pname, S.sname

```

Result Grid

sid
1
2
4

viii. For each part find the sname of the supplier who charges the most for that parts.

```

101 • SELECT P.pname, S.sname
102 FROM Parts P, Supplier S, Catalog C
103 WHERE P.pid = C.pid
104 AND S.sid = C.sid
105 AND C.cost = (
106     SELECT MAX(C1.cost)
107     FROM Catalog C1
108     WHERE C1.pid = P.pid);
109

```

Setup

Result Grid

pname	sname
Nut	Acme Widget Suppliers
Washer	Acme Widget Suppliers
Clamp	Acme Widget Suppliers
Bolt	Universal Traders
Clamp	Prime Corp