

# **DBMS WEEK 9**

**Consider the following schema: SUPPLIERS (sid: integer, sname: string, address: string) PARTS (pid: integer, pname: string, color: string) CATALOG (sid: integer, pid: integer, cost: real) The Catalog relation lists the prices charged for parts by Suppliers. Write the following queries in SQL:**

- i) Find the pnames of parts for which there is some supplier.**
- ii) Find the snames of suppliers who supply every part.**
- iii) Find the snames of suppliers who supply every red part.**
- iv) Find the pnames of parts supplied by Acme Widget Suppliers and by no one else.**
- v) 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).**
- vi) For each part, find the sname of the supplier who charges the most for that part.**

**OUTPUT:**

**i) Find the pnames of parts for which there is some supplier.**

The screenshot shows a database query editor with multiple tabs: Query 1, Insurance\_DB, ORDERS\_DB, bank\_db, movie\_db, supplier (selected), stud\_fac, and college\_d. The editor contains the following SQL queries:

```
37
38 • SELECT*FROM catalog;
39 • SELECT*FROM parts;
40 • SELECT*FROM suppliers;
41 /*1)Find the pnames of parts for which there is some supplier.*/
42 • SELECT distinct pname FROM parts,catalog WHERE parts.pid=catalog.pid;
43 /*2)Find the snames of suppliers who supply every part.*/
44 • SELECT sname FROM suppliers,parts,catalog WHERE suppliers.sid=catalog.sid GROUP
45 /*3) Find the snames of suppliers who supply every red part.*/
46 • SELECT DISTINCT sname FROM suppliers,catalog,parts WHERE suppliers.sid=catalog.s
47
```

Below the queries is a toolbar with icons for file operations, a 'Limit to 1000 rows' dropdown, and other utility icons. At the bottom, there is a 'Result Grid' section with a 'Filter Rows' input field, an 'Export' button, and a 'Wrap Cell Content' checkbox. The result grid displays a list of part names:

	pname
▶	Book
	Pen
	Pencil
	Mobile
	Charger

**ii) Find the snames of suppliers who supply every part.**

```
41  /*1)Find the pnames of parts for which there is some supplier.*/
42  • SELECT distinct pname FROM parts,catalog WHERE parts.pid=catalog.pid;
43  /*2)Find the snames of suppliers who supply every part.*/
44  • SELECT sname FROM suppliers,parts,catalog WHERE suppliers.sid=catalog.sid GROUP BY Catalog.sid AND
45  /*3) Find the snames of suppliers who supply every red part.*/
46  • SELECT DISTINCT sname FROM suppliers,catalog,parts WHERE suppliers.sid=catalog.sid AND catalog.pid:
47
48  /*4)Find the pnames of parts supplied by Acme Widget Suppliers and by no one else.*/
49  • select pname from Parts,Catalog,Suppliers where Catalog.pid=Parts.pid and Catalog.sid=Suppliers.si
50
```

<

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	sname
▶	Acme Widget

**iii) Find the snames of suppliers who supply every red part.**

Query 1   Insurance\_DB   ORDERS\_DB   bank\_db   movie\_db   **supplier** ×   stud\_fac   college\_db

Limit to 1000 rows

```

43  /*2)Find the snames of suppliers who supply every part.*/
44  • SELECT sname FROM suppliers,parts,catalog WHERE suppliers.sid=catalog.sid GROUP BY Catalog.sid AN
45  /*3) Find the snames of suppliers who supply every red part.*/
46  • SELECT DISTINCT sname FROM suppliers,catalog,parts WHERE suppliers.sid=catalog.sid AND catalog.pi
47
48  /*4)Find the pnames of parts supplied by Acme Widget Suppliers and by no one else.*/
49  • select pname from Parts,Catalog,Suppliers where Catalog.pid=Parts.pid and Catalog.sid=Suppliers.s
50
51  /*5) Find the sids of suppliers who charge more for some part than the average cost of that part
52  over all the suppliers who supply that part).*/
53  • SELECT distinct c.sid FROM catalog c WHERE c.cost>(SELECT AVG(c1.cost) FROM catalog c1 WHERE c1.p

```

Result Grid

	sname
►	Acme Widget
	Johns

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

```
..
48      /*4)Find the pnames of parts supplied by Acme Widget Suppliers and by no one else.*/
49 •    select pname from Parts,Catalog,Suppliers where Catalog.pid=Parts.pid and Catalog.sid=Suppliers.sid
50
```

<

Result Grid Filter Rows:  Export: Wrap Cell Content:

	pname
▶	Mobile
	Charger

**v) 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).**

```
--  
51  /*5) Find the sids of suppliers who charge more for some part than the average cost of that part  
52  over all the suppliers who supply that part).*/  
53  • SELECT distinct c.sid FROM catalog c WHERE c.cost > (SELECT AVG(c1.cost) FROM catalog c1 WHERE c1.p:  
54
```

<





Result Grid   Filter Rows:  Export:  Wrap Cell Content: 

	sid
▶	10002
	10004

vi) For each part, find the sname of the supplier who charges the most for that part.

```
54
55  /*6) For each part, find the sname of the supplier who charges the most for that part.*/
56  • SELECT p.pid,s.sname from parts p,suppliers s,Catalog c where c.pid=p.pid and c.sid=s.sid and c.
57
```

<

Result Grid   Filter Rows:  Export:  Wrap Cell Content: 

	pid	sname
▶	20001	Acme Widget
	20004	Acme Widget
	20005	Acme Widget
	20001	Johns
	20002	Johns

\*\*\*\*\***WEEK9 ENDS**\*\*\*\*\*