MAHANTESH GATTINA ~ 1BM19CS219

SUPPLIER DATABASE MANAGAMENT

use supplier;

create table supplier(

sid int not null,

sname varchar(20) not null,

address varchar(30) not null,

primary key(sid)

);

create table parts(

pid int not null,

pname varchar(20),

color varchar(10),

primary key(pid)

);

create table catalog(

sid int not null,

pid int not null,

cost real not null,

foreign key(sid) references supplier(sid) on delete cascade,

foreign key(pid) REFERENCES parts(pid) on delete CASCADE

);

insert into supplier

(sid,sname,address)

VALUES

(1,'AWS','DELHI'),

(2,'BWS','SURAT');

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **[Full texts](http://localhost/phpmyadmin/index.php)** | | | | **[sid](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=supplier&sql_query=select+*+from+supplier++%0AORDER+BY+`supplier`.`sid`+ASC&sql_signature=548a96ae6b6e7bbe506235e88a1a41a5af460e701ab4d02585303484154b7042&session_max_rows=25&is_browse_distinct=0)** | **[sname](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=supplier&sql_query=select+*+from+supplier++%0AORDER+BY+`supplier`.`sname`+ASC&sql_signature=fc5243027827c5bc6c98925206e1003ab362f595b9f92ea2775049963905f55f&session_max_rows=25&is_browse_distinct=0)** | **[address](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=supplier&sql_query=select+*+from+supplier++%0AORDER+BY+`supplier`.`address`+ASC&sql_signature=143eed3f00c5a510ab24cbb85a287327e968fce3bd74d02bbbbcdedf005edccf&session_max_rows=25&is_browse_distinct=0)** |  | | | |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 1 | AWS | DELHI |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 2 | BWS | SURAT |  |  |  |  |

insert into parts

(pid, pname, color)

VALUES

(1,'A','RED'),

(2,'B', 'RED'),

(3,'C','BLUE'),

(4,'D','GREEN');

SELECT \* from parts

窗体顶端

[+ Options](http://localhost/phpmyadmin/index.php?route=/table/sql&db=supplier&table=supplier)

窗体底端

窗体顶端

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **[Full texts](http://localhost/phpmyadmin/index.php)** | | | | **[pid](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=parts&sql_query=SELECT+*+from+parts++%0AORDER+BY+`parts`.`pid`+ASC&sql_signature=dad58b2c1ee40440e58a3e9d66b124d9c2dd0ecfbad90338926d446c4c38e7c8&session_max_rows=25&is_browse_distinct=0)** | **[pname](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=parts&sql_query=SELECT+*+from+parts++%0AORDER+BY+`parts`.`pname`+ASC&sql_signature=53a1ac83f816cfc27d681d4be4ecd9930da002e1ad81aeaaa8a5ba5f072491e5&session_max_rows=25&is_browse_distinct=0)** | **[color](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=parts&sql_query=SELECT+*+from+parts++%0AORDER+BY+`parts`.`color`+ASC&sql_signature=b1470c5745be97aee62f4e32413ab291944aa85ad0d8dba9c9384ca053cfdab8&session_max_rows=25&is_browse_distinct=0)** |  | | | |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 1 | A | RED |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 2 | B | RED |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 3 | C | BLUE |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 4 | D | GREEN |  |  |  |  |

窗体底端

insert into catalog

(sid,pid,cost)

VALUES

(1,1,100),

(1,2,200),

(2,2,300),

(2,3,400),

(2,4,250);

select \* from catalog;

|  |  |  |  |
| --- | --- | --- | --- |
| **[sid](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=catalog&sql_query=select+*+from+catalog++%0AORDER+BY+`catalog`.`sid`+ASC&sql_signature=e2be67ac34994c06a87981bd538d531460fd5f3a1c8874699beec1596e6c1e54&session_max_rows=25&is_browse_distinct=0)** | **[pid](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=catalog&sql_query=select+*+from+catalog++%0AORDER+BY+`catalog`.`pid`+ASC&sql_signature=fea180715ed6320a38e20a7a9f183798322e8dea078ad7ed74e01bf7e1ea359d&session_max_rows=25&is_browse_distinct=0)** | **[cost](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=catalog&sql_query=select+*+from+catalog++%0AORDER+BY+`catalog`.`cost`+ASC&sql_signature=8c8a5927d2bec13b41fbda04da0e161519ca454a698ec3a7de9cf5901b6f7034&session_max_rows=25&is_browse_distinct=0)** |  |
| [1](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=supplier&pos=0&sql_signature=7b4124615fc1680a89b27984448cb409b7ba0fc4e7b2388cfd857552fd334969&sql_query=SELECT+*+FROM+`supplier`.`supplier`+WHERE+`sid`+=+1" \o "AWS) | [1](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=parts&pos=0&sql_signature=51ad6c36a1760880680a978f45c32137e3207ea3e57ea271080d19c8026a7bf9&sql_query=SELECT+*+FROM+`supplier`.`parts`+WHERE+`pid`+=+1" \o "A) | 100 |  |
| [1](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=supplier&pos=0&sql_signature=7b4124615fc1680a89b27984448cb409b7ba0fc4e7b2388cfd857552fd334969&sql_query=SELECT+*+FROM+`supplier`.`supplier`+WHERE+`sid`+=+1" \o "AWS) | [2](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=parts&pos=0&sql_signature=42d27cb06f582ce02b86ba9b314793e2b9b5e55d56eedd5fe793005ae029a8f9&sql_query=SELECT+*+FROM+`supplier`.`parts`+WHERE+`pid`+=+2" \o "B) | 200 |  |
| [2](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=supplier&pos=0&sql_signature=55b7a28bb88fceafde36ef80542564035c94157368c9aa8a3ea3218950f04d2b&sql_query=SELECT+*+FROM+`supplier`.`supplier`+WHERE+`sid`+=+2" \o "BWS) | [2](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=parts&pos=0&sql_signature=42d27cb06f582ce02b86ba9b314793e2b9b5e55d56eedd5fe793005ae029a8f9&sql_query=SELECT+*+FROM+`supplier`.`parts`+WHERE+`pid`+=+2" \o "B) | 300 |  |
| [2](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=supplier&pos=0&sql_signature=55b7a28bb88fceafde36ef80542564035c94157368c9aa8a3ea3218950f04d2b&sql_query=SELECT+*+FROM+`supplier`.`supplier`+WHERE+`sid`+=+2" \o "BWS) | [3](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=parts&pos=0&sql_signature=88adaff0fb03dd41797b011800d7867b50115c578c2c32e6bf7d7c7e0cc7cc49&sql_query=SELECT+*+FROM+`supplier`.`parts`+WHERE+`pid`+=+3" \o "C) | 400 |  |
| [2](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=supplier&pos=0&sql_signature=55b7a28bb88fceafde36ef80542564035c94157368c9aa8a3ea3218950f04d2b&sql_query=SELECT+*+FROM+`supplier`.`supplier`+WHERE+`sid`+=+2" \o "BWS) | [4](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=parts&pos=0&sql_signature=eccba46b6a624b5304e2fd378795b5f0bda24305785eaa348b02f0754174e836&sql_query=SELECT+*+FROM+`supplier`.`parts`+WHERE+`pid`+=+4" \o "D) | 250 |  |

1. Find the pnames of parts for which there is some supplier.

SELECT DISTINCT p.pname

FROM parts p, catalog c

WHERE p.pid = c.pid;

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **[Full texts](http://localhost/phpmyadmin/index.php)** | | | | **[pname](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=parts&sql_query=SELECT+DISTINCT+p.pname%0D%0AFROM+parts+p,+catalog+c%0D%0AWHERE+p.pid+=+c.pid++%0AORDER+BY+`p`.`pname`+ASC&sql_signature=dff2332f2be5b669272c0dc8446a09d058d1dcbee3fd5cfea05daea2014dea03&session_max_rows=25&is_browse_distinct=0)** |  | | | |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | A |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | B |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | C |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | D |  |  |  |  |

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

insert into catalog

(sid, pid, cost)

VALUES

(2,1,150);

Select \* from catalog;

|  |  |  |  |
| --- | --- | --- | --- |
| **[sid](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=catalog&sql_query=select+*+from+catalog++%0AORDER+BY+`catalog`.`sid`+ASC&sql_signature=e2be67ac34994c06a87981bd538d531460fd5f3a1c8874699beec1596e6c1e54&session_max_rows=25&is_browse_distinct=0)** | **[pid](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=catalog&sql_query=select+*+from+catalog++%0AORDER+BY+`catalog`.`pid`+ASC&sql_signature=fea180715ed6320a38e20a7a9f183798322e8dea078ad7ed74e01bf7e1ea359d&session_max_rows=25&is_browse_distinct=0)** | **[cost](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=catalog&sql_query=select+*+from+catalog++%0AORDER+BY+`catalog`.`cost`+ASC&sql_signature=8c8a5927d2bec13b41fbda04da0e161519ca454a698ec3a7de9cf5901b6f7034&session_max_rows=25&is_browse_distinct=0)** |  |
| [1](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=supplier&pos=0&sql_signature=7b4124615fc1680a89b27984448cb409b7ba0fc4e7b2388cfd857552fd334969&sql_query=SELECT+*+FROM+`supplier`.`supplier`+WHERE+`sid`+=+1" \o "AWS) | [1](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=parts&pos=0&sql_signature=51ad6c36a1760880680a978f45c32137e3207ea3e57ea271080d19c8026a7bf9&sql_query=SELECT+*+FROM+`supplier`.`parts`+WHERE+`pid`+=+1" \o "A) | 100 |  |
| [1](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=supplier&pos=0&sql_signature=7b4124615fc1680a89b27984448cb409b7ba0fc4e7b2388cfd857552fd334969&sql_query=SELECT+*+FROM+`supplier`.`supplier`+WHERE+`sid`+=+1" \o "AWS) | [2](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=parts&pos=0&sql_signature=42d27cb06f582ce02b86ba9b314793e2b9b5e55d56eedd5fe793005ae029a8f9&sql_query=SELECT+*+FROM+`supplier`.`parts`+WHERE+`pid`+=+2" \o "B) | 200 |  |
| [2](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=supplier&pos=0&sql_signature=55b7a28bb88fceafde36ef80542564035c94157368c9aa8a3ea3218950f04d2b&sql_query=SELECT+*+FROM+`supplier`.`supplier`+WHERE+`sid`+=+2" \o "BWS) | [2](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=parts&pos=0&sql_signature=42d27cb06f582ce02b86ba9b314793e2b9b5e55d56eedd5fe793005ae029a8f9&sql_query=SELECT+*+FROM+`supplier`.`parts`+WHERE+`pid`+=+2" \o "B) | 300 |  |
| [2](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=supplier&pos=0&sql_signature=55b7a28bb88fceafde36ef80542564035c94157368c9aa8a3ea3218950f04d2b&sql_query=SELECT+*+FROM+`supplier`.`supplier`+WHERE+`sid`+=+2" \o "BWS) | [3](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=parts&pos=0&sql_signature=88adaff0fb03dd41797b011800d7867b50115c578c2c32e6bf7d7c7e0cc7cc49&sql_query=SELECT+*+FROM+`supplier`.`parts`+WHERE+`pid`+=+3" \o "C) | 400 |  |
| [2](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=supplier&pos=0&sql_signature=55b7a28bb88fceafde36ef80542564035c94157368c9aa8a3ea3218950f04d2b&sql_query=SELECT+*+FROM+`supplier`.`supplier`+WHERE+`sid`+=+2" \o "BWS) | [4](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=parts&pos=0&sql_signature=eccba46b6a624b5304e2fd378795b5f0bda24305785eaa348b02f0754174e836&sql_query=SELECT+*+FROM+`supplier`.`parts`+WHERE+`pid`+=+4" \o "D) | 250 |  |
| [2](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=supplier&pos=0&sql_signature=55b7a28bb88fceafde36ef80542564035c94157368c9aa8a3ea3218950f04d2b&sql_query=SELECT+*+FROM+`supplier`.`supplier`+WHERE+`sid`+=+2" \o "BWS) | [1](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=parts&pos=0&sql_signature=51ad6c36a1760880680a978f45c32137e3207ea3e57ea271080d19c8026a7bf9&sql_query=SELECT+*+FROM+`supplier`.`parts`+WHERE+`pid`+=+1" \o "A) | 150 |  |

SELECT s.sname

FROM supplier s

WHERE NOT EXISTS (( SELECT p.pid

FROM parts p )

EXCEPT

( SELECT c.pid

FROM catalog c

WHERE c.sid = s.sid ));

|  |  |  |  |  |  |  |  |  |
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| **[Full texts](http://localhost/phpmyadmin/index.php)** | | | | **sname** |  | | | |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | BWS |  |  |  |  |

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

SELECT S.sname

FROM supplier S

WHERE NOT EXISTS (( SELECT P.pid

FROM parts P

WHERE P.color = 'RED')

EXCEPT

( SELECT C.pid

FROM catalog C, parts P

WHERE C.sid = S.sid AND

1. pid = P.pid AND P.color = 'RED' ))

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **[Full texts](http://localhost/phpmyadmin/index.php)** | | | | **[sname](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=supplier&sql_query=SELECT+S.sname%0D%0AFROM+supplier+S%0D%0AWHERE+NOT+EXISTS+((+SELECT+P.pid%0D%0AFROM+parts+P%0D%0AWHERE+P.color+=+'RED')%0D%0AEXCEPT%0D%0A(+SELECT+C.pid%0D%0AFROM+catalog+C,+parts+P%0D%0AWHERE+C.sid+=+S.sid+AND%0D%0AC.pid+=+P.pid+AND+P.color+=+'RED'+))++%0AORDER+BY+`S`.`sname`+ASC&sql_signature=f6f8f0e33c8c488e3c96b3061ad0fcc43890aed8c2365e5c35983dea11fdb861&session_max_rows=25&is_browse_distinct=0)** |  | | | |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | AWS |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | BWS |  |  |  |  |

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

SELECT P.pname

FROM parts P, catalog C, supplier S

WHERE P.pid = C.pid AND C.sid = S.sid

AND S.sname = 'AWS'

AND NOT EXISTS ( SELECT \*

FROM catalog C1, supplier S1

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

S1.sname <> 'AWS' )

**pname**

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).

SELECT DISTINCT C.sid

FROM catalog C

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

FROM catalog C1

WHERE C1.pid = C.pid )

|  |  |
| --- | --- |
| **sid** |  |
| [2](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=supplier&pos=0&sql_signature=55b7a28bb88fceafde36ef80542564035c94157368c9aa8a3ea3218950f04d2b&sql_query=SELECT+*+FROM+`supplier`.`supplier`+WHERE+`sid`+=+2" \o "BWS) |  |
|  |  |

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

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)

|  |  |  |
| --- | --- | --- |
| **[pid](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=supplier&sql_query=SELECT+P.pid,+S.sname%0D%0AFROM+parts+P,+supplier+S,+catalog+C%0D%0AWHERE+C.pid+=+P.pid%0D%0AAND+C.sid+=+S.sid%0D%0AAND+C.cost+=+(SELECT+max(c1.cost)+from+catalog+c1+where+c1.pid+=+P.pid)++%0AORDER+BY+`P`.`pid`+ASC&sql_signature=33b064d11c03d254ba42d2d8a42e6c09430592c1967a87e425bf6f85c55a7e0c&session_max_rows=25&is_browse_distinct=0)** | **[sname](http://localhost/phpmyadmin/index.php?route=/sql&db=supplier&table=supplier&sql_query=SELECT+P.pid,+S.sname%0D%0AFROM+parts+P,+supplier+S,+catalog+C%0D%0AWHERE+C.pid+=+P.pid%0D%0AAND+C.sid+=+S.sid%0D%0AAND+C.cost+=+(SELECT+max(c1.cost)+from+catalog+c1+where+c1.pid+=+P.pid)++%0AORDER+BY+`S`.`sname`+ASC&sql_signature=4ad904e4df34cbea105f7009add8a4e256e147c65ce85e531dd2318f2e4fccce&session_max_rows=25&is_browse_distinct=0)** |  |
| 2 | BWS |  |
| 3 | BWS |  |
| 4 | BWS |  |
| 1 | BWS |  |

7.Find the sids of suppliers who supply only red parts.

select c.SID

from catalog c JOIN

parts p

ON c.PID = p.PID

group by c.SID

having min(p.color) = max(p.color) and

min(p.color) = 'RED'

|  |  |
| --- | --- |
| **SID** |  |
| 1 |  |