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|  |
|  | Create database supplier; |
|  | use supplier; |
|  | create table SUPPLIERS(sid integer,sname varchar(20),address varchar(40),primary key(sid)); |
|  | INSERT INTO `supplier`.`suppliers` (`sid`, `sname`, `address`) VALUES ('10001', 'Acme Widget', 'Bangalore'); |
|  | INSERT INTO `supplier`.`suppliers` (`sid`, `sname`, `address`) VALUES ('10002', 'Johns', 'Kolkata'); |
|  | INSERT INTO `supplier`.`suppliers` (`sid`, `sname`, `address`) VALUES ('10003', 'Vimal', 'Mumbai'); |
|  | INSERT INTO `supplier`.`suppliers` (`sid`, `sname`, `address`) VALUES ('10004', 'Reliance', 'Delhi'); |
|  |  |
|  | commit; |
|  | select\* from SUPPLIERS; |
|  |  |
|  | create table PARTS(pid integer,pname varchar(20),color varchar(30),primary key(pid)); |
|  | INSERT INTO `supplier`.`parts` (`pid`, `pname`, `color`) VALUES ('20001', 'Book', 'Red'); |
|  | INSERT INTO `supplier`.`parts` (`pid`, `pname`, `color`) VALUES ('20002', 'Pen', 'Red'); |
|  | INSERT INTO `supplier`.`parts` (`pid`, `pname`, `color`) VALUES ('20003', 'Pencil', 'Green'); |
|  | INSERT INTO `supplier`.`parts` (`pid`, `pname`, `color`) VALUES ('20004', 'Mobile', 'Green'); |
|  | INSERT INTO `supplier`.`parts` (`pid`, `pname`, `color`) VALUES ('20005', 'Charger', 'Black'); |
|  | commit; |
|  | select\* from PART; |
|  |  |
|  | create table CATALOG(sid integer,pid integer,foreign key(sid) references SUPPLIERS(sid),foreign key(pid) references PARTS(pid), |
|  | cost integer,primary key(sid,pid)); |
|  | INSERT INTO `supplier`.`catalog` (`sid`, `pid`, `cost`) VALUES ('10001', '20001', '10'); |
|  | INSERT INTO `supplier`.`catalog` (`sid`, `pid`, `cost`) VALUES ('10001', '20002', '10'); |
|  | INSERT INTO `supplier`.`catalog` (`sid`, `pid`, `cost`) VALUES ('10001', '20003', '30'); |
|  | INSERT INTO `supplier`.`catalog` (`sid`, `pid`, `cost`) VALUES ('10001', '20004', '10'); |
|  | INSERT INTO `supplier`.`catalog` (`sid`, `pid`, `cost`) VALUES ('10001', '20005', '10'); |
|  | INSERT INTO `supplier`.`catalog` (`sid`, `pid`, `cost`) VALUES ('10002', '20001', '10'); |
|  | INSERT INTO `supplier`.`catalog` (`sid`, `pid`, `cost`) VALUES ('10002', '20002', '20'); |
|  | INSERT INTO `supplier`.`catalog` (`sid`, `pid`, `cost`) VALUES ('10003', '20003', '30'); |
|  | INSERT INTO `supplier`.`catalog` (`sid`, `pid`, `cost`) VALUES ('10004', '20003', '40'); |
|  |  |
|  | commit; |
|  | select\* from CATALOG; |
|  |  |
|  |  |
|  | -- Query 1 |
|  | SELECT DISTINCT P.pname |
|  | FROM Parts P, Catalog C |
|  | WHERE P.pid = C.pid; |
|  |  |
|  | -- Query 2 |
|  | select S.sname from SUPPLIERS S where not exists |
|  | (select P.pid from PARTS P where not exists |
|  | (select C.sid from CATALOG C where C.sid = S.sid and C.pid = P.pid)); |
|  |  |
|  | -- Query 3 |
|  | select S.sname from SUPPLIERS S where not exists |
|  | (select P.pid from PARTS P where P.color = 'Red' and |
|  | (not exists (select C.sid from CATALOG C where C.sid = S.sid and C.pid = P.pid))); |
|  |  |
|  | -- Query 4 |
|  | select P.pname from PARTS P, CATALOG C, SUPPLIERS S |
|  | where P.pid = C.pid and C.sid = S.sid and S.sname = 'Acme Widget' |
|  | and not exists (select \* from CATALOG C1, SUPPLIERS S1 |
|  | where P.pid = C1.pid and C1.sid = S1.sid and S1.sname <> 'Acme Widget'); |
|  |  |
|  | -- Query 5 |
|  | SELECT DISTINCT C.sid FROM Catalog C |
|  | WHERE C.cost > ( SELECT AVG (C1.cost) |
|  | FROM Catalog C1 |
|  | WHERE C1.pid = C.pid ); |
|  |  |
|  |  |
|  | -- Query 6 |
|  | SELECT P.pid, S.sname |
|  | FROM Parts P, Suppliers 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); |
|  |  |

