```
MariaDB [supplier]> create table SUPPLIERS
    -> (
    -> sid integer,
    -> sname varchar(30),
    -> address varchar(30),
    -> PRIMARY KEY(sid)
    -> );
Query OK, 0 rows affected (0.277 sec)

MariaDB [supplier]>
MariaDB [supplier]> CREATE TABLE PARTS
    -> (
    -> pid integer,
    -> pname varchar(30),
    -> color varchar(30),
    -> PRIMARY KEY(pid)
    -> );
Query OK, 0 rows affected (0.025 sec)

MariaDB [supplier]> create table CATALOGUE
    -> (
    -> sid integer,
    -> pid integer,
    -> cost VARCHAR(30),
    -> FOREIGN KEY (sid) REFERENCES SUPPLIERS(sid),
    -> FOREIGN KEY (pid) REFERENCES PARTS(pid)
    -> );
Query OK, 0 rows affected (0.023 sec)

MariaDB [supplier]> insert into SUPPLIERS VALUES(10001,'
Acmewidget','bangalore');
Query OK, 1 row affected (0.026 sec)

MariaDB [supplier]> insert into SUPPLIERS VALUES(10002,'
jhons','kolkata');
Query OK, 1 row affected (0.009 sec)

MariaDB [supplier]> insert into SUPPLIERS VALUES(10003,'
vimal','mumbai');
Query OK, 1 row affected (0.002 sec)
```

```
MariaDB [supplier]> insert into SUPPLIERS VALUES(10002,'jhons','kolkata');
Query OK, 1 row affected (0.009 sec)

MariaDB [supplier]> insert into SUPPLIERS VALUES(10003,'vimal','mumbai');
Query OK, 1 row affected (0.002 sec)

MariaDB [supplier]> insert into SUPPLIERS VALUES(10004,'reliance','delhi');
Query OK, 1 row affected (0.008 sec)

MariaDB [supplier]> insert into PARTS VALUES(20001,'book','red');
Query OK, 1 row affected (0.015 sec)

MariaDB [supplier]> insert into PARTS VALUES(20002,'pen','red');
Query OK, 1 row affected (0.006 sec)

MariaDB [supplier]> insert into PARTS VALUES(20003,'pencil','green');
Query OK, 1 row affected (0.003 sec)

MariaDB [supplier]> insert into PARTS VALUES(20004,'mobile','green');
Query OK, 1 row affected (0.002 sec)

MariaDB [supplier]> insert into PARTS VALUES(20005,'charger','black');
Query OK, 1 row affected (0.004 sec)
```

```
Query OK, 1 row affected (0.002 sec)

MariaDB [supplier]> insert into PARTS VALUES(20005,'charger','black');
Query OK, 1 row affected (0.004 sec)

MariaDB [supplier]> insert into CATALOGUE VALUES(10001,20001,10);
Query OK, 1 row affected (0.033 sec)

MariaDB [supplier]> insert into CATALOGUE VALUES(10001,20002,10);
Query OK, 1 row affected (0.025 sec)

MariaDB [supplier]> insert into CATALOGUE VALUES(10001,20003,30);
Query OK, 1 row affected (0.084 sec)

MariaDB [supplier]> insert into CATALOGUE VALUES(10001,20004,10);
Query OK, 1 row affected (0.025 sec)

MariaDB [supplier]> insert into CATALOGUE VALUES(10001,20005,10);
Query OK, 1 row affected (0.037 sec)

MariaDB [supplier]> insert into CATALOGUE VALUES(10002,20001,10);
Query OK, 1 row affected (0.025 sec)

MariaDB [supplier]> insert into CATALOGUE VALUES(10002,20002,20);
Query OK, 1 row affected (0.024 sec)

MariaDB [supplier]> insert into CATALOGUE VALUES(10003,20003,30);
Query OK, 1 row affected (0.024 sec)

MariaDB [supplier]> insert into CATALOGUE VALUES(10004,20003,40);
Query OK, 1 row affected (0.046 sec)

MariaDB [supplier]> select * from SUPPLIERS;
+-------+------------+-----------+
| sid   | sname      | address   |
+-------+------------+-----------+
| 10001 | Acmewidget | bangalore |
| 10002 | jhons      | kolkata   |
| 10003 | vimal      | mumbai    |
| 10004 | reliance   | delhi     |
+-------+------------+-----------+
4 rows in set (0.002 sec)

MariaDB [supplier]> SELECT * FROM PARTS;
```

```
MariaDB [supplier]> SELECT * FROM PARTS;
+-------+---------+-------+
| pid   | pname   | color |
+-------+---------+-------+
| 20001 | book    | red   |
| 20002 | pen     | red   |
| 20003 | pencil  | green |
| 20004 | mobile  | green |
| 20005 | charger | black |
+-------+---------+-------+
5 rows in set (0.002 sec)

MariaDB [supplier]> SELECT * FROM CATALOGUE;
+-------+-------+------+
| sid   | pid   | cost |
+-------+-------+------+
| 10001 | 20001 | 10   |
| 10001 | 20002 | 10   |
| 10001 | 20003 | 30   |
| 10001 | 20004 | 10   |
| 10001 | 20005 | 10   |
| 10002 | 20001 | 10   |
| 10002 | 20002 | 20   |
| 10003 | 20003 | 30   |
| 10004 | 20003 | 40   |
+-------+-------+------+
9 rows in set (0.002 sec)
```

```
MariaDB [supplier]> SELECT pname FROM PARTS,CATALOGUE WHERE CATALOGUE.pid=PARTS.pid AND CATALOGUE.sid IS NOT NU
LL;
+---------+
| pname   |
+---------+
| book    |
| pen     |
| pencil  |
| mobile  |
| charger |
| book    |
| pen     |
| pencil  |
| pencil  |
+---------+
9 rows in set (0.047 sec)
```

```
MariaDB [supplier]> SELECT S.sname FROM SUPPLIERS S WHERE NOT EXISTS((SELECT P.pid FROM PARTS P ) EXCEPT (SELEC
T C.pid FROM CATALOGUE C WHERE C.sid = S.sid));
+------------+
| sname      |
+------------+
| Acmewidget |
+------------+
1 row in set (0.029 sec)

MariaDB [supplier]> SELECT S.sname FROM SUPPLIERS S WHERE NOT EXISTS (( SELECT P.pid  FROM PARTS P WHERE P.colo
r = 'Red') EXCEPT ( SELECT C.pid FROM CATALOGUE C, PARTS P WHERE C.sid = S.sid AND C.pid = P.pid  AND P.color =
 'Red' ));
+------------+
| sname      |
+------------+
| Acmewidget |
| jhons      |
+------------+
2 rows in set (0.017 sec)
```

```
MariaDB [supplier]> SELECT P.pname FROM PARTS P, CATALOGUE C, SUPPLIERS S WHERE P.pid = C.pid AND C.sid = S.sid
 AND S.sname = 'Acmewidget' AND NOT EXISTS ( SELECT *FROM CATALOGUE C1,SUPPLIERS S1 WHERE P.pid = C1.pid AND C1
.sid = S1.sid AND S1.sname<>'Acmewidget');
+---------+
| pname   |
+---------+
| mobile  |
| charger |
+---------+
2 rows in set (0.003 sec)

MariaDB [supplier]> SELECT DISTINCT C.sid FROM CATALOGUE C WHERE C.cost> ( SELECT AVG (C1.cost) FROM CATALOGUE
C1 WHERE C1.pid = C.pid );
+-------+
| sid   |
+-------+
| 10002 |
| 10004 |
+-------+
2 rows in set (0.021 sec)
```

```
MariaDB [supplier]> SELECT P.pid, S.sname FROM PARTS P, SUPPLIERS S, CATALOGUE C WHERE C.pid = P.pid AND C.sid
= S.sid AND C.cost = (SELECT MAX (C1.cost) FROM CATALOGUE C1 WHERE C1.pid = P.pid);
ERROR 1630 (42000): FUNCTION supplier.MAX does not exist. Check the 'Function Name Parsing and Resolution' sect
ion in the Reference Manual
MariaDB [supplier]>
MariaDB [supplier]> SELECT P.pid, S.sname FROM PARTS P, SUPPLIERS S, CATALOGUE C WHERE C.pid = P.pid AND C.sid
= S.sid AND C.cost = (SELECT MAX(C1.cost) FROM CATALOGUE C1 WHERE C1.pid = P.pid);
+-------+------------+
| pid   | sname      |
+-------+------------+
| 20001 | Acmewidget |
| 20004 | Acmewidget |
| 20005 | Acmewidget |
| 20001 | jhons      |
| 20002 | jhons      |
| 20003 | reliance   |
+-------+------------+
6 rows in set (0.202 sec)

MariaDB [supplier]>
```