

```

MariaDB [airline]> CREATE TABLE flight(
->     no INT,
->     frm VARCHAR(20),
->     too VARCHAR(20),
->     distance INT,
->     departs VARCHAR(20),
->     arrives VARCHAR(20),
->     price REAL,
->     PRIMARY KEY (no) );
Query OK, 0 rows affected (0.023 sec)

MariaDB [airline]> CREATE TABLE aircraft(
->     aid INT,
->     aname VARCHAR(20),
->     cruisingrange INT,
->     PRIMARY KEY (aid) );
Query OK, 0 rows affected (0.014 sec)

MariaDB [airline]> CREATE TABLE employees(
->     eid INT,
->     ename VARCHAR(20),
->     salary INT,
->     PRIMARY KEY (eid) );
Query OK, 0 rows affected (0.032 sec)

MariaDB [airline]> CREATE TABLE certified(
->     eid INT,
->     aid INT,
->     PRIMARY KEY (eid,aid),
->     FOREIGN KEY (eid) REFERENCES employees (eid),

->     FOREIGN KEY (aid) REFERENCES aircraft (aid) );
Query OK, 0 rows affected (0.030 sec)

MariaDB [airline]> INSERT INTO flight (no,frm,too,distance,departs,arrives,price) VALUES
->     (1,'Bangalore','Mangalore',360,'10:45:00','12:00:00',10000),
->     (2,'Bangalore','Delhi',5000,'12:15:00','04:30:00',25000),
->     (3,'Bangalore','Mumbai',3500,'02:15:00','05:25:00',30000),
->     (4,'Delhi','Mumbai',4500,'10:15:00','12:05:00',35000),
->     (5,'Delhi','Frankfurt',18000,'07:15:00','05:30:00',90000),
->     (6,'Bangalore','Frankfurt',19500,'10:00:00','07:45:00',95000),
->     (7,'Bangalore','Frankfurt',17000,'12:00:00','06:30:00',99000);
Query OK, 7 rows affected (0.131 sec)
Records: 7  Duplicates: 0  Warnings: 0

```

```
MariaDB [airline]> INSERT INTO aircraft (aid,aname,cruisingrange) values
```

```
->      (123,'Airbus',1000),  
->      (302,'Boeing',5000),  
->      (306,'Jet01',5000),  
->      (378,'Airbus380',8000),  
->      (456,'Aircraft',500),  
->      (789,'Aircraft02',800),  
->      (951,'Aircraft03',1000);
```

```
Query OK, 7 rows affected (0.010 sec)  
Records: 7  Duplicates: 0  Warnings: 0
```

```
MariaDB [airline]> INSERT INTO employees (eid,ename,salary) VALUES
```

```
->      (1,'Ajay',30000),  
->      (2,'Ajith',85000),  
->      (3,'Arnab',50000),  
->      (4,'Harry',45000),  
->      (5,'Ron',90000),  
->      (6,'Josh',75000),  
->      (7,'Ram',100000);
```

```
Query OK, 7 rows affected (0.006 sec)  
Records: 7  Duplicates: 0  Warnings: 0
```

```
MariaDB [airline]> INSERT INTO certified (eid,aid) VALUES
```

```
->      (1,123),  
->      (2,123),  
->      (1,302),  
->      (5,302),  
->      (7,302),  
->      (1,306),  
->      (2,306),  
->      (1,378),  
->      (2,378),  
->      (4,378),  
->      (6,456),  
->      (3,456),  
->      (5,789),  
->      (6,789),  
->      (3,951),  
->      (1,951),  
->      (1,789);
```

```
Query OK, 17 rows affected (0.019 sec)  
Records: 17  Duplicates: 0  Warnings: 0
```

```
MariaDB [airline]> select * from flight;
```

| no | frm | too | distance | departs | arrives | price |
|----|-----------|-----------|----------|----------|----------|-------|
| 1 | Bangalore | Mangalore | 360 | 10:45:00 | 12:00:00 | 10000 |
| 2 | Bangalore | Delhi | 5000 | 12:15:00 | 04:30:00 | 25000 |
| 3 | Bangalore | Mumbai | 3500 | 02:15:00 | 05:25:00 | 30000 |
| 4 | Delhi | Mumbai | 4500 | 10:15:00 | 12:05:00 | 35000 |
| 5 | Delhi | Frankfurt | 18000 | 07:15:00 | 05:30:00 | 90000 |
| 6 | Bangalore | Frankfurt | 19500 | 10:00:00 | 07:45:00 | 95000 |
| 7 | Bangalore | Frankfurt | 17000 | 12:00:00 | 06:30:00 | 99000 |

```
7 rows in set (0.167 sec)
```

```
MariaDB [airline]> select * from aircraft;
```

| aid | aname | cruisingrange |
|-----|------------|---------------|
| 123 | Airbus | 1000 |
| 302 | Boeing | 5000 |
| 306 | Jet01 | 5000 |
| 378 | Airbus380 | 8000 |
| 456 | Aircraft | 500 |
| 789 | Aircraft02 | 800 |
| 951 | Aircraft03 | 1000 |

```
7 rows in set (0.018 sec)
```

```
MariaDB [airline]> select * from employees;
```

| eid | ename | salary |
|-----|-------|--------|
| 1 | Ajay | 30000 |
| 2 | Ajith | 85000 |
| 3 | Arnab | 50000 |
| 4 | Harry | 45000 |
| 5 | Ron | 90000 |
| 6 | Josh | 75000 |
| 7 | Ram | 100000 |

```
7 rows in set (0.013 sec)
```

```
MariaDB [airline]> select * from certified;
```

| eid | aid |
|-----|-----|
| 1 | 123 |
| 1 | 302 |
| 1 | 306 |
| 1 | 378 |
| 1 | 789 |
| 1 | 951 |
| 2 | 123 |
| 2 | 306 |
| 2 | 378 |
| 3 | 456 |
| 3 | 951 |
| 4 | 378 |
| 5 | 302 |
| 5 | 789 |
| 6 | 456 |
| 6 | 789 |
| 7 | 302 |

```
17 rows in set (0.019 sec)
```

```

MariaDB [airline]> SELECT DISTINCT a.aname
->     FROM aircraft a,certified c,employees e
->     WHERE a.aid=c.aid
->     AND c.eid=e.eid
->     AND NOT EXISTS
->     (SELECT *
->     FROM employees e1
->     WHERE e1.eid=e.eid
->     AND e1.salary<80000);

```

```

+-----+
| aname  |
+-----+
| Airbus |
| Boeing |
| Jet01  |
| Airbus380 |
| Aircraft02 |
+-----+

```

5 rows in set (0.061 sec)

```

MariaDB [airline]> SELECT c.eid,MAX(cruisingrange)
->     FROM certified c,aircraft a
->     WHERE c.aid=a.aid
->     GROUP BY c.eid
->     HAVING COUNT(*)>3;

```

```

+-----+-----+
| eid | MAX(cruisingrange) |
+-----+-----+
| 1 | 8000 |
+-----+-----+

```

1 row in set (0.038 sec)

```

MariaDB [airline]> SELECT DISTINCT e.ename
->     FROM employees e
->     WHERE e.salary<
->     (SELECT MIN(f.price)
->     FROM flight f
->     WHERE f.frm='Bangalore'
->     AND f.too='Frankfurt');

```

```

+-----+
| ename |
+-----+
| Ajay  |
| Ajith |
| Arnab |
| Harry |
| Ron   |
| Josh  |
+-----+

```

6 rows in set (0.031 sec)

```

MariaDB [airline]> SELECT a.aid,a.aname,AVG(e.salary)
->      FROM aircraft a,certified c,employees e
->      WHERE a.aid=c.aid
->      AND c.eid=e.eid
->      AND a.cruisingrange>1000
->
-> GROUP BY a.aid,a.aname;

```

```

+-----+-----+-----+
| aid | aname      | AVG(e.salary) |
+-----+-----+-----+
| 302 | Boeing     | 73333.3333    |
| 306 | Jet01      | 57500.0000    |
| 378 | Airbus380  | 53333.3333    |
+-----+-----+-----+

```

3 rows in set (0.012 sec)

```

MariaDB [airline]> SELECT distinct e.ename
->      FROM employees e,aircraft a,certified c
->      WHERE e.eid=c.eid
->      AND c.aid=a.aid
->      AND a.aname='Boeing';

```

```

+-----+
| ename |
+-----+
| Ajay  |
| Ron   |
| Ram   |
+-----+

```

3 rows in set (0.003 sec)

```

MariaDB [airline]> select aname from aircraft where cruisingrange > any (select distance from flight where frm='Bangalore' and too='Delhi');

```

```

+-----+
| aname   |
+-----+
| Airbus380 |
+-----+

```

```

1 row in set (0.020 sec)

```

```

MariaDB [airline]> SELECT  F.departs
-> FROM flight F
-> WHERE F.no IN ( ( SELECT F0.no
-> FROM flight F0
-> WHERE F0.frm = 'Bangalore' AND F0.too= 'Kolkata'

-> AND extract(hour from F0.arrives) < 18 )
-> UNION
-> ( SELECT F0.no
-> FROM flight F0, flight F1
-> WHERE F0.frm= 'Bangalore' AND F0.too<> 'Kolkata'

-> AND F0.too= F1.frm AND F1.too = 'Kolkata'
-> AND F1.departs > F0.arrives
-> AND extract(hour from F1.arrives) < 18)
-> UNION
-> ( SELECT F0.no
-> FROM flight F0, flight F1, flight F2
-> WHERE F0.frm = 'Bangalore'
-> AND F0.too = F1.frm
-> AND F1.too = F2.frm
-> AND F2.too = 'Kolkata'
-> AND F0.too <> 'Kolkata'
-> AND F1.too <> 'Kolkata'
-> AND F1.departs > F0.arrives
-> AND F2.departs > F1.arrives
-> AND extract(hour from F2.arrives) < 18));

```

```

Empty set (0.065 sec)

```

