

```
1 • create database airline;
2 • use airline;
3 • CREATE TABLE flights(
4   flno Int,
5   `from` Varchar(20),
6   `to` Varchar(20),
7   distance INT,
8   departs time,
9   arrives time,
10  price Int,
11  PRIMARY KEY(flno) );
12 • CREATE TABLE aircraft(
13   aid INT,
14   aname VARCHAR(20),
15   cruisingrange INT,
16  PRIMARY KEY (aid) );
17
18 • CREATE TABLE employees(
19   eid INT,
20   ename Varchar(20),
21   salary INT,
22  PRIMARY KEY (eid) );
23
24 • CREATE TABLE certified(
```

```
22 PRIMARY KEY (eid) );
23
24 • CREATE TABLE certified(
25     eid INT,
26     aid INT,
27     PRIMARY KEY (eid,aid),
28     FOREIGN KEY (eid) REFERENCES employees (eid),
29     FOREIGN KEY (aid) REFERENCES aircraft (aid) );
30
31 • show tables;
32
33 • INSERT INTO flights (flno,`from`,`to`,distance,departs,arrives,price) VALUES
34     (1,'Bangalore','Chennai',360,'08:45','10:00',10000),
35     (2,'Bangalore','Delhi',1700,'12:15','15:00',37000),
36     (3,'Bangalore','Kolkata',1500,'15:15','05:25',30000),
37     (4,'Mumbai','Delhi',1200,'10:30','12:30',28000),
38     (5,'Bangalore','New york',14000,'05:45','02:30',90000),
39     (6,'Delhi','Chicago',12000,'10:00','05:45',95000),
40     (7,'Bangalore','Frankfurt',15000,'12:00','06:30',98000),
41     (8,'Madison','New york',1500,'10:15','14:25',30000);
42 • SELECT * FROM flights;
43
44 • INSERT INTO aircraft (aid,aname,cruisingrange) values
45     (1,'Airbus 380',1000),
```



```
43
44 • INSERT INTO aircraft (aid,aname,cruisingrange) values
45     (1,'Airbus 380',1000),
46     (2,'Boeing 737',4000),
47     (3,'Lockheed',5500),
48     (4,'Airbus A220',9500),
49     (5,'Boeing 747',800),
50     (6,'Douglas DC3',900);
51 • SELECT * FROM aircraft;
52
53 • INSERT INTO employees (eid,ename,salary) VALUES
54     (1,'Zoya',95000),
55     (2,'Akshay',65000),
56     (3,'Niveditha',70000),
57     (4,'Safan',45000),
58     (5,'Peter',95000),
59     (6,'Nayan',100000),
60     (7,'Ajay',50000);
61 • SELECT * FROM employees;
62
63 • INSERT INTO certified (eid,aid) VALUES
64     (1,1),
65     (1,3),
66     (1,4),
```



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Limit to 200 rows

```
67 (5,4),
68 (5,3),
69 (1,2),
70 (2,6),
71 (2,5),
72 (4,5),
73 (6,4),
74 (6,3),
75 (3,6),
76 (3,2);
77 • SELECT * FROM certified;
78
79
80 #i. Find the names of aircraft such that all pilots certified to operate them have salaries more than Rs.80,000.
81 • SELECT DISTINCT A.aname
82 FROM Aircraft A
83 WHERE A.Aid IN (SELECT C.aid
84 FROM Certified C, Employees E
85 WHERE C.eid = E.eid AND
86 NOT EXISTS ( SELECT *
87 FROM Employees E1
88 WHERE E1.eid = E.eid AND E1.salary < 80000 ));
89
90 #ii. For each pilot who is certified for more than three aircrafts, find the eid and the maximum cruising range of the aircraft for which she or he is certified.
```

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Limit to 200 rows

```
91 • SELECT C.eid, MAX(A.cruisingrange)
92 FROM Certified C, Aircraft A
93 WHERE C.aid = A.aid
94 GROUP BY C.eid
95 HAVING COUNT(*) > 3;
96
97 #iii. Find the names of pilots whose salary is less than the price of the cheapest route from Bengaluru to Frankfurt.
98 • SELECT DISTINCT e.ename
99 FROM employees e
100 WHERE e.salary <
101 (SELECT MIN(f.price)
102 FROM flights f
103 WHERE f.from='Bengaluru' AND f.to='Frankfurt');
104
105 #iv. For all aircraft with cruising range over 1000 Kms, find the name of the aircraft and the average salary of all pilots certified for this aircraft.
106 • SELECT a.aid, a.aname, AVG(e.salary)
107 FROM aircraft a, certified c, employees e
108 WHERE a.aid=c.aid
109 AND c.eid=e.eid
110 AND a.cruisingrange>1000
111 GROUP BY a.aid, a.aname;
112
113 #v. Find the names of pilots certified for some Boeing aircraft.
114 • SELECT distinct e.ename
```

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Limit to 200 rows

```
115 FROM employees e,aircraft a,certified c
116 WHERE e.eid=c.eid AND c.aid=a.aid AND a.aname like 'Boeing%';
117
118 #vi. Find the aids of all aircraft that can be used on routes from Bengaluru to New Delhi.
119 • SELECT a.aid
120 FROM aircraft a
121 WHERE a.cruisingrange>
122 (SELECT MIN(f.distance)
123 FROM flights f
124 WHERE f.from='Bangalore' AND f.to='Delhi');
125
126 #vii. A customer wants to travel from Madison to New York with no more than two changes of flight. List the choice of departure times from Madison if the customer wants
127 • SELECT F.departs
128 FROM Flights F WHERE F.flno IN ( SELECT F0.flno
129 FROM Flights F0
130 WHERE F0.from = 'Madison' AND F0.to = 'New york' AND F0.arrives < '18:00' );
131
132 #viii. Print the name and salary of every non-pilot whose salary is more than the average salary for pilots.0
133 • SELECT E.ename, E.salary
134 FROM Employees E
135 WHERE E.eid NOT IN ( SELECT DISTINCT C.eid
136 FROM Certified C )
137 AND E.salary > ( SELECT AVG (E1.salary)
138 FROM Employees E1
```

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lab 6 dbms SQL File 5*

Limit to 200 rows

```
119 • SELECT a.aid
120 FROM aircraft a
121 WHERE a.cruisingrange>
122 (SELECT MIN(f.distance)
123 FROM flights f
124 WHERE f.from='Bangalore' AND f.to='Delhi');
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139 WHERE E1.eid IN
140 ( SELECT DISTINCT C1.eid
141 FROM Certified C1 ) );
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```

Result Grid Filter Rows: Export: Wrap Cell Content:

Tables_in_airline
aircraft
certified
employees
flights

Result 14 x flights 15 aircraft 16 employees 17 certified 18 Aircraft 19 Result 20 employees 21 Result 22 Result 23 aircraft 24 Flights 25 Employees 26 Read Only

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141 FROM Certified C1 ) );
```

Result Grid

	fno	from	to	distance	departs	arrives	price
1		Bangalore	Chennai	360	08:45:00	10:00:00	10000
2		Bangalore	Delhi	1700	12:15:00	15:00:00	37000
3		Bangalore	Kolkata	1500	15:15:00	05:25:00	30000
4		Mumbai	Delhi	1200	10:30:00	12:30:00	28000
5		Bangalore	New york	14000	05:45:00	02:30:00	90000
6		Delhi	Chicago	12000	10:00:00	05:45:00	95000
7		Bangalore	Frankfurt	15000	12:00:00	06:30:00	98000
8		Madison	New york	1500	10:15:00	14:25:00	30000
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Result 14 flights 15 x aircraft 16 employees 17 certified 18 Aircraft 19 Result 20 employees 21 Result 22 Result 23 aircraft 24 Flights 25 Employees 26 Apply

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138 FROM Employees E1
139 WHERE E1.eid IN
140 ( SELECT DISTINCT C1.eid
141 FROM Certified C1 ) );
```

Result Grid

	aid	aname	cruisingrange
▶	1	Airbus 380	1000
	2	Boeing 737	4000
	3	Lockheed	5500
	4	Airbus A220	9500
	5	Boeing 747	800
	6	Douglas DC3	900
*	NULL	NULL	NULL

Result 14 flights 15 aircraft 16 x employees 17 certified 18 Aircraft 19 Result 20 employees 21 Result 22 Result 23 aircraft 24 Flights 25 Employees 26 Apply

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138 FROM Employees E1
139 WHERE E1.eid IN
140 ( SELECT DISTINCT C1.eid
141 FROM Certified C1 ) );
```

Result Grid

	eid	ename	salary
▶	1	Zoya	95000
	2	Akshay	65000
	3	Niveditha	70000
	4	Safan	45000
	5	Peter	95000
	6	Nayan	100000
	7	Ajay	50000
*	NULL	NULL	NULL

Result 14 flights 15 aircraft 16 employees 17 x certified 18 Aircraft 19 Result 20 employees 21 Result 22 Result 23 aircraft 24 Flights 25 Employees 26 Apply

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139 WHERE E1.eid IN
140 ( SELECT DISTINCT C1.eid
141 FROM Certified C1 ) );
```

Result Grid

	eid	aid
▶	1	1
	1	2
	3	2
	1	3
	5	3
	6	3
	1	4
	5	4
	6	4
	2	5
	4	5
	2	6

Result 14 flights 15 aircraft 16 employees 17 certified 18 x Aircraft 19 Result 20 employees 21 Result 22 Result 23 aircraft 24 Flights 25 Employees 26 Apply

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```

Result Grid

aname
Airbus 380
Boeing 737
Lockheed
Airbus A220

Result 14 flights 15 aircraft 16 employees 17 certified 18 Aircraft 19 x Result 20 employees 21 Result 22 Result 23 aircraft 24 Flights 25 Employees 26 Read Only

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138 FROM Employees E1
139 WHERE E1.eid IN
140 ( SELECT DISTINCT C1.eid
141 FROM Certified C1 ) );
```

Result Grid

	eid	MAX(A.cruisingrange)
▶	1	9500

Result 14 flights 15 aircraft 16 employees 17 certified 18 Aircraft 19 Result 20 x employees 21 Result 22 Result 23 aircraft 24 Flights 25 Employees 26 Read Only

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```

Result Grid

ename
Zoya
Akshay
Niveditha
Safan
Peter
Ajay

Result 14 flights 15 aircraft 16 employees 17 certified 18 Aircraft 19 Result 20 employees 21 x Result 22 Result 23 aircraft 24 Flights 25 Employees 26 Read Only

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140 ( SELECT DISTINCT C1.eid
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```

Result Grid

	aid	aname	AVG(e.salary)
▶	2	Boeing 737	82500.0000
	3	Lockheed	96666.6667
	4	Airbus A220	96666.6667

Result 14 flights 15 aircraft 16 employees 17 certified 18 Aircraft 19 Result 20 employees 21 Result 22 x Result 23 aircraft 24 Flights 25 Employees 26 Read Only

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```

Result Grid

ename
Zoya
Niveditha
Akshay
Safan

Result 14 flights 15 aircraft 16 employees 17 certified 18 Aircraft 19 Result 20 employees 21 Result 22 Result 23 x aircraft 24 Flights 25 Employees 26 Read Only

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```

Result Grid

	aid
▶	2
	3
	4
*	NULL

Result 14 flights 15 aircraft 16 employees 17 certified 18 Aircraft 19 Result 20 employees 21 Result 22 Result 23 aircraft 24 x Flights 25 Employees 26 Apply

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137 AND E.salary > ( SELECT AVG (E1.salary)
138 FROM Employees E1
139 WHERE E1.eid IN
140 ( SELECT DISTINCT C1.eid
141 FROM Certified C1 ) );
```

Result Grid

departs
10:15:00

Result 14 flights 15 aircraft 16 employees 17 certified 18 Aircraft 19 Result 20 employees 21 Result 22 Result 23 aircraft 24 Flights 25 x Employees 26 Read Only

Type here to search

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