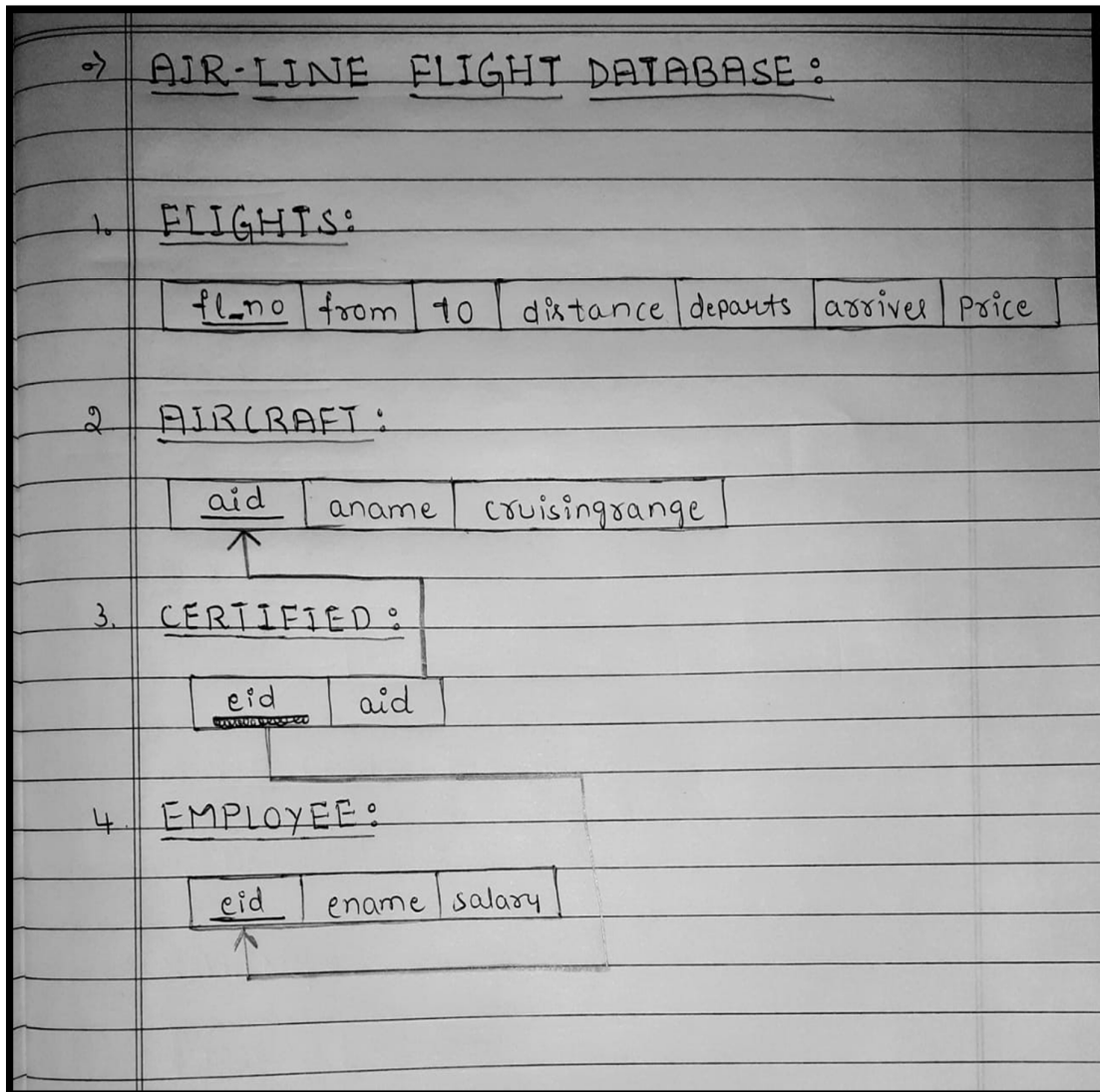


AIRLINE FLIGHT DATABASE

SCHEMA:



FLIGHT Table:

```
MariaDB [airline]> desc flight;
```

Field	Type	Null	Key	Default	Extra
fl_no	int(11)	NO	PRI	NULL	
f_from	varchar(40)	YES		NULL	
f_to	varchar(40)	YES		NULL	
distance	int(11)	YES		NULL	
departs	time	YES		NULL	
arrives	time	YES		NULL	
price	int(11)	YES		NULL	

7 rows in set (0.004 sec)

AIRLINE FLIGHT DATABASE

FLIGHT Table VALUES:

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

fl_no	f_from	f_to	distance	departs	arrives	price
101	Bangalore	Gulbarga	580	02:15:00	03:00:00	2580
102	Delhi	Bangalore	1250	11:10:00	12:50:00	4532
103	Mumbai	Lucknow	654	05:55:00	06:50:00	3278
104	Delhi	Ahmedabad	450	01:00:00	01:50:00	4555
105	Mumbai	Bangalore	680	02:15:00	03:30:00	3580
106	Hyderabad	frankfurt	3500	07:10:00	09:50:00	5805

```
6 rows in set (0.001 sec)
```

AIRCRAFT Table:

```
MariaDB [airline]> desc aircraft;
```

Field	Type	Null	Key	Default	Extra
aid	int(11)	NO	PRI	NULL	
aname	varchar(40)	YES		NULL	
cruisinrange	int(11)	YES		NULL	

```
3 rows in set (0.055 sec)
```

AIRCRAFT Table VALUES:

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

aid	aname	cruisinrange
201	HAL Tejas	3205
202	Boeing	1580
203	Airbus	2356
204	Cirrus	3562
205	Learjet	4578

```
5 rows in set (0.001 sec)
```

EMPLOYEE Table:

```
MariaDB [airline]> desc employee;
```

Field	Type	Null	Key	Default	Extra
eid	int(11)	NO	PRI	NULL	
ename	varchar(40)	YES		NULL	
salary	int(11)	YES		NULL	

```
3 rows in set (0.004 sec)
```

AIRLINE FLIGHT DATABASE

EMPLOYEE Table VALUES:

```
MariaDB [airline]> select * from employee;
+----+-----+-----+
| eid | ename  | salary |
+----+-----+-----+
| 301 | Akash  | 35875  |
| 302 | Yuvaraj | 45000  |
| 303 | Sunil  | 54870  |
| 304 | Asim   | 81000  |
| 305 | Yaseen | 38798  |
+----+-----+-----+
5 rows in set (0.001 sec)
```

CERTIFIED Table:

```
MariaDB [airline]> desc certified;
+----+-----+-----+-----+-----+-----+
| Field | Type   | Null | Key | Default | Extra |
+----+-----+-----+-----+-----+-----+
| eid   | int(11)| YES  | MUL | NULL    |       |
| aid   | int(11)| YES  | MUL | NULL    |       |
+----+-----+-----+-----+-----+-----+
2 rows in set (0.004 sec)
```

CERTIFIED Table VALUES:

```
MariaDB [airline]> select * from certified;
+----+-----+
| eid | aid  |
+----+-----+
| 301 | 201  |
| 301 | 204  |
| 302 | 205  |
| 303 | 203  |
| 304 | 202  |
| 304 | 204  |
| 304 | 205  |
| 305 | 202  |
+----+-----+
8 rows in set (0.001 sec)
```

AIRLINE FLIGHT DATABASE

QUERIES:

1. Find the names of Aircraft such that all pilots certified to operate them have salaries more than Rs. 80000

```
select aname from aircraft
where aid in(select c.aid
from certified c,employee e
where c.eid = e.eid and
not exists(select *
from employee e1 where
e1.eid = e.eid and e1.salary<80000));
```

```
MariaDB [airline]> select aname from aircraft
-> where aid in(select c.aid
-> from certified c,employee e
-> where c.eid = e.eid and
-> not exists(select *
-> from employee e1 where
-> e1.eid = e.eid and e1.salary<80000));
+-----+
| aname |
+-----+
| Boeing|
| Cirrus|
| Learjet|
+-----+
3 rows in set (0.001 sec)
```

2. 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.

```
select c.eid,max(a.cruisinrange)
from certified c, aircraft a
where c.aid = a.aid
group by c.eid having count(*)>=3;
```

```
MariaDB [airline]> select c.eid,max(a.cruisinrange)
-> from certified c, aircraft a
-> where c.aid = a.aid
-> group by c.eid having count(*)>=3;
+-----+-----+
| eid | max(a.cruisinrange) |
+-----+-----+
| 304 | 4578 |
+-----+-----+
1 row in set (0.001 sec)
```

AIRLINE FLIGHT DATABASE

3. Find the names of pilots whose salary is less than the price of the cheapest route from Bengaluru to Frankfurt.

```
select E.ename from employee E
where salary < (select min(F.price)
from flight F where F.f_from = 'Bengaluru' and F.f_to = 'Frankfurt');
```

```
MariaDB [airline]> select E.ename from employee E
-> where salary < (select min(F.price)
-> from flight F where F.f_from = 'Bengaluru' and F.f_to = 'Frankfurt');
+-----+
| ename |
+-----+
| Yaseen |
+-----+
1 row in set (0.001 sec)
```

4. 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.

```
select A.aname,avg(E.salary)
from aircraft A,employee E,certified C
where A.cruisrange>=1000 and
A.aid = C.aid and E.eid = C.eid
group by A.aid,A.aname;
```

```
MariaDB [airline]> select A.aname,avg(E.salary)
-> from aircraft A,employee E,certified C
-> where A.cruisrange>=1000 and A.aid = C.aid and E.eid = C.eid
-> group by A.aid,A.aname;
+-----+-----+
| aname | avg(E.salary) |
+-----+-----+
| Boeing | 48000.0000 |
| Airbus | 54870.0000 |
| Cirrus | 58437.5000 |
| Learjet | 63000.0000 |
+-----+-----+
4 rows in set (0.001 sec)
```

5. Find the names of pilots certified for some Boeing aircraft.

```
select E.ename
from employee E,certified C,aircraft A
where A.aname = 'Boeing' and A.aid = C.aid and E.eid = C.eid;
```

AIRLINE FLIGHT DATABASE

```
MariaDB [airline]> select E.ename
-> from employee E,certified C,aircraft A
-> where A.aname = 'Boeing' and A.aid = C.aid and E.eid = C.eid;
+-----+
| ename |
+-----+
| Asim  |
| Yaseen|
+-----+
2 rows in set (0.001 sec)
```