select \* from flights;

+------+------------+-----------+----------+----------+----------+-------+

| flno | ffrom | fto | distance | departs | arrives | price |

+------+------------+-----------+----------+----------+----------+-------+

| 1 | Bengaluru | New Delhi | 500 | 06:00:00 | 09:00:00 | 5000 |

| 2 | Bengaluru | Chennai | 300 | 07:00:00 | 08:30:00 | 3000 |

| 3 | Trivandrum | New Delhi | 800 | 08:00:00 | 11:30:00 | 60 |

| 4 | Bengaluru | Frankfurt | 10000 | 06:00:00 | 23:30:00 | 5000 |

| 5 | Kolkata | New Delhi | 2400 | 11:00:00 | 03:30:00 | 9000 |

+------+------------+-----------+----------+----------+----------+-------+

5 rows in set (0.00 sec)

mysql> select \* from Aircraft;

+-----+------------+----------------+

| aid | aname | cruising\_range |

+-----+------------+----------------+

| 1 | Airbus | 2000 |

| 2 | Boeing | 700 |

| 3 | JetAirways | 550 |

| 4 | Indigo | 5000 |

| 5 | Boeing | 4500 |

+-----+------------+----------------+

5 rows in set (0.00 sec)

mysql> select \* from certified;

+------+------+

| eid | aid |

+------+------+

| 101 | 2 |

| 101 | 4 |

| 101 | 5 |

| 102 | 1 |

| 102 | 3 |

| 102 | 5 |

| 103 | 2 |

| 103 | 3 |

| 103 | 5 |

| 104 | 1 |

| 104 | 3 |

| 105 | 3 |

+------+------+

12 rows in set (0.00 sec)

mysql> select \* from employees;

+-----+---------+--------+

| eid | ename | salary |

+-----+---------+--------+

| 101 | Avinash | 50000 |

| 102 | Lokesh | 60000 |

| 103 | Rakesh | 70000 |

| 104 | Santosh | 82000 |

| 105 | Tilak | 5000 |

+-----+---------+--------+

5 rows in set (0.00 sec)

**i. Find the names of aircraft such that all pilots certified to operate them have salaries more than Rs.80,000.**

select aname from Aircraft where aid in (select aid from certified where eid in (select eid from employees where salary>=80000));

+------------+

| aname |

+------------+

| Airbus |

| JetAirways |

+------------+

2 rows in set (0.00 sec)

**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**

mysql> SELECT C.eid, MAX(A.cruising\_range) FROM Certified C, Aircraft A WHERE A.aid = C.aid GROUP BY C.eid HAVING COUNT(C.aid)>=3;

+------+-----------------------+

| eid | MAX(A.cruising\_range) |

+------+-----------------------+

| 102 | 4500 |

| 101 | 5000 |

| 103 | 4500 |

+------+-----------------------+

3 rows in set (0.00 sec)

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

select ename from employees where salary <=(select min(price) from flights where ffrom = 'Bengaluru' and fto = 'Frankfurt');

+-------+

| ename |

+-------+

| Tilak |

+-------+

1 row in set (0.00 sec)

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.

select a.aname, avg(e.salary) from aircraft a, employees e,certified where a.cruising\_range>=1000 and a.aid = certified.aid and certified.eid = e.eid group by a.aname;

+--------+---------------+

| aname | avg(e.salary) |

+--------+---------------+

| Airbus | 71000.0000 |

| Indigo | 50000.0000 |

| Boeing | 60000.0000 |

+--------+---------------+

3 rows in set (0.00 sec)

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

select ename from employees e, certified where e.eid = certified.eid and certified.aid in (select aid from aircraft where aname = 'Boeing');

+---------+

| ename |

+---------+

| Avinash |

| Rakesh |

| Avinash |

| Lokesh |

| Rakesh |

+---------+

5 rows in set (0.00 sec)

vi. Find the aids of all aircraft that can be used on routes from Bengaluru to New Delhi.

select distinct a.aid from aircraft a where a.cruising\_range > (select min(f.distance) from flights f where f.ffrom = 'Bengaluru' and f.fto = 'New Delhi');

+-----+

| aid |

+-----+

| 1 |

| 2 |

| 3 |

| 4 |

| 5 |

+-----+

5 rows in set (0.00 sec)