WEEK:08

Create table and enter values.

```
create database Airline_1bm21cs217;
use Airline_1bm21cs217;
create table Flights
fl_no int,
fl_fr char(50),
fl_to char(50),
distance float,
depart time,
arrive time,
price int,
primary key (fl_no)
);
create table Aircraft
a_id varchar(50),
a_name char(50),
cruising_range int,
primary key(a_id)
);
```

create table Employee

```
(
e_id varchar(50),
e_name char(50),
salary int,
primary key(e_id)
);
create table Certified
e_id varchar(50),
a_id varchar(50),
primary key (e_id,a_id),
foreign key(e_id) references Employee(e_id),
foreign key(a_id) references Aircraft(a_id)
);
insert into Employee
values ('101','Avinash',50000),
('102','Lokesh',60000),
('103','Rakesh',70000),
    ('104','Santosh',82000),
    ('105','Tilak',5000);
select * from Employee;
```

```
insert into Aircraft
values ('1','Airbus',2000),
('2','Boeing',700),
    ('3','JetAirways',550),
    ('4','Indigo',5000),
    ('5','Boeing',4500),
    ('6','Airbus',2200);
select * from Aircraft;
insert into Flights
values (1,'Bengaluru','New Delhi','500','6:00:00','9:00:00',5000),
(2,'Bengaluru','Chennai','300','7:00:00','8:30:00',3000),
    (3,'Trivandrum','New Delhi','800','8:00:00','11:30:00',6000),
    (4, 'Bengaluru', 'Frankfurt', '10000', '6:00:00', '23:30:00', 50000),
    (5,'Kolkata','New Delhi','2400','11:00:00','3:30:00',9000),
    (6, 'Bengaluru', 'Frankfurt', '8000', '9:00:00', '23:00:00', 40000);
select * from Flights;
insert into Certified
values ('101','2'),
    ('101','4'),
    ('101','5'),
    ('101','6'),
```

('102','1'),

('102','3'),

('102','5'),

('103','2'),

('103','3'),

('103','5'),

('103','6'),

('104','6'),

('104','1'),

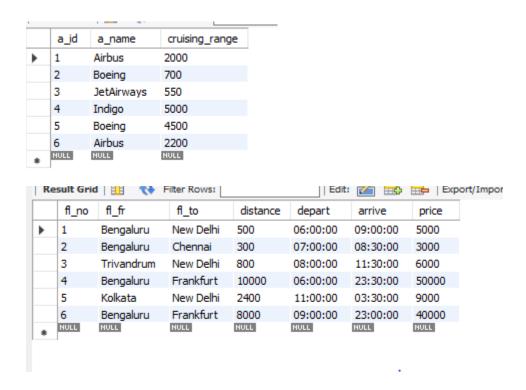
('104','3'),

('105','3');

select * from Certified;

	e_id	e_name	salary	
•	101	Avinash	50000	
	102	Lokesh	60000	
	103	Rakesh	70000	
	104	Santosh	82000	
	105	Tilak	5000	
	NULL	NULL	NULL	

	e_id	a_id
•	102	1
	104	1
	101	2
	103	2
	102	3
	103	3
	104	3
	105	3
	101	4
	101	5
	102	5
	103	5
	101	6
	103	6
	104	6
	NULL	NULL



QUERIES

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

select a.a_name

from Aircraft a

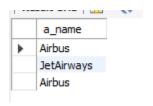
where a.a_id in(select c.a_id

from Certified c

where c.e_id in(select e.e_id

from Employee e

where salary>80000));



ii. For each pilot who is certified for more than three aircrafts, find the eid and the maximum cruisingrange of the aircraft for which she or he is certified.

```
select c.e_id, MAX(a.cruising_range)
from Aircraft a , Certified c
where c.a_id=a.a_id
group by c.e_id
having count(*)>=3;
```

	e_id	MAX(a.cruising_range)
•	102	4500
	104	2200
	101	5000
	103	4500

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

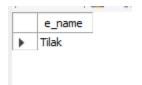
select e. e_name

from Employee e

where e.salary<(select MIN(f.price)

from FLights f

where f.fl_fr='Bengaluru' and f.fl_to="Frankfurt");

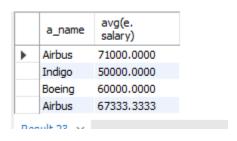


iv. For all aircraft with cruising range over 1000 Kms, find the name of the aircraft and the Average salary of all pilots certified for this aircraft.

select a.a_name, avg(e. salary)

from Aircraft a, Employee e, Certified c

where a.a_id=c.a_id and e.e_id=c.e_id and a.cruising_range>1000 group by c.a_id;



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

select e.e name

from Employee e

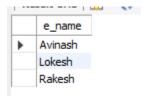
where e.e_id in(select c.e_id

from Certified c

where c.a_id in(select a.a_id

from Aircraft a

where a.a_name='Boeing'));



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

select a.a_id
from Aircraft a
where a.cruising_range>(select f.distance
from Flights f

where fl_fr="Bengaluru" and fl_to="New Delhi");

	a_id
•	1
	2
	3
	4
	5
	6