WEEK 8:

Create database table and insert appropriate data

create database airline;
use airline;

create table flights(
flno integer,
from_at varchar(20),
to_at varchar(20),
distance int,
departs time,
arrives time,
price int,
primary key(flno)
);

create table AIRCRAFT(
aid int,
aname varchar(20),
cruising_range int,
primary key(aid)
);

create table employees(
eid int,
ename varchar(20),
salary int,
primary key(eid)
);

create table certified(
eid int,
aid int,
primary key(aid,eid),
foreign key (aid) references aircraft(aid),
foreign key (eid) references employees(eid)
);

aid	aname	cruising_range
1	Airbus	2000
2	Boeing	700
3	JetAirways	550
4	Indigo	5000
5	Boeing	4500
6	Airbus	2200

eid	aid
101	2
101	4
101	5
101	6
102	1
102	3
102	5
103	2
103	3
103	5
103	6
104	1
104	3
104	6
105	3

eid	ename	salary
101	Avinash	50000
102	Lokesh	60000
103	Rakesh	70000
104	Santhosh	82000
105	Tilak	5000

flno	from_at	to_at	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	Trivandram	New Delhi	800	08:00:00	11:30:00	6000
4	Bengaluru	Frankfurt	10000	06:00:00	23:30:00	50000
5	Kolkata	New Delhi	2400	11:00:00	03:30:00	9000
6	Bengaluru	Frankfurt	8000	09:00:00	23:00:00	40000

**/*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 as a where eid in
(select eid from employees where salary>80000));

aname
Airbus
JetAirways
Airbus

/*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.*/

select eid,max(cruising_range) from aircraft as a,certified as c where c.aid=a.aid and eid in
(select eid from certified as c group by eid having count(eid)>=3) group by eid;

eid	max(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 ename from employees where salary<=
(select min(price) from flights as t where from_at="Bengaluru" and to_at="Frankfurt");

ename
Tilak

**/*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.aid, aname, avg(e.salary) from aircraft a, employees e, certified c where a.aid in
(select aid from aircraft where cruising_range>=1000) and a.aid=c.aid and c.eid=e.eid
group by aid, aname;

aid	aname	avg(e.salary)
1	Airbus	71000.0000
4	Indigo	50000.0000
5	Boeing	60000.0000
6	Airbus	67333.3333

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

select ename from employees where eid in
(select eid from certified where aid in
(select aid from aircraft where aname="Boeing"));

ename
Avinash
Lokesh
Rakesh

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

select aid from aircraft where cruising_range>
(select distance from flights where to_at="New Delhi" and from_at="Bengaluru");

aid
1
2
3
4
5
6
NULL