DBMS WEEK 8

```
create database Airline;
use Airline;
create table flights(
flno int,
ffrom varchar(50),
tto varchar(50),
distance int,
departs time,
arrives time,
price int,
primary key(flno));

create table aircraft(
aid int,
aname varchar(50),
cruisingrange int,
primary key(aid));

create table employee(
eid int,
ename varchar(50),
salary int,
primary key(eid));

create table certified(
eid int,aid int,
foreign key(aid) references aircraft(aid)
on update cascade on delete cascade,
foreign key(eid) references employee(eid)
on update cascade on delete cascade);



insert into employee values
(101,'Avinash',50000),
(102,'Lokesh',60000),
(103,'Rakesh',70000),
(104,'Santhosh',82000),
(105,'Tilak',5000);

insert into aircraft values
(1,'Airbus',2000),
(2,'Boeing',700),
(3,'JetAirways',550),
(4,'Indigo',5000),
(5,'Boeing',4500),
```

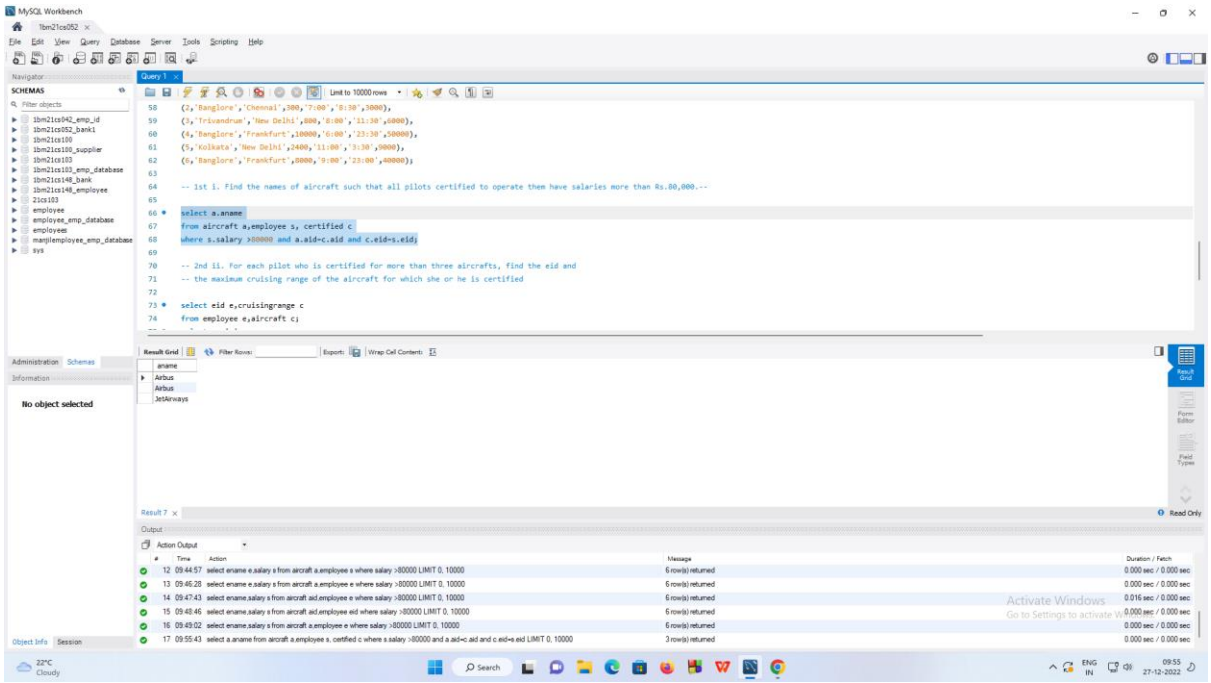
(6,'Airbus',2200);

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);

insert into flights values
(1,'Banglore','New Delhi',500,'6:00','9:00',5000),
(2,'Banglore','Chennai',300,'7:00','8:30',3000),
(3,'Trivandrum','New Delhi',800,'8:00','11:30',6000),
(4,'Banglore','Frankfurt',10000,'6:00','23:30',50000),
(5,'Kolkata','New Delhi',2400,'11:00','3:30',9000),
(6,'Banglore','Frankfurt',8000,'9:00','23:00',40000);

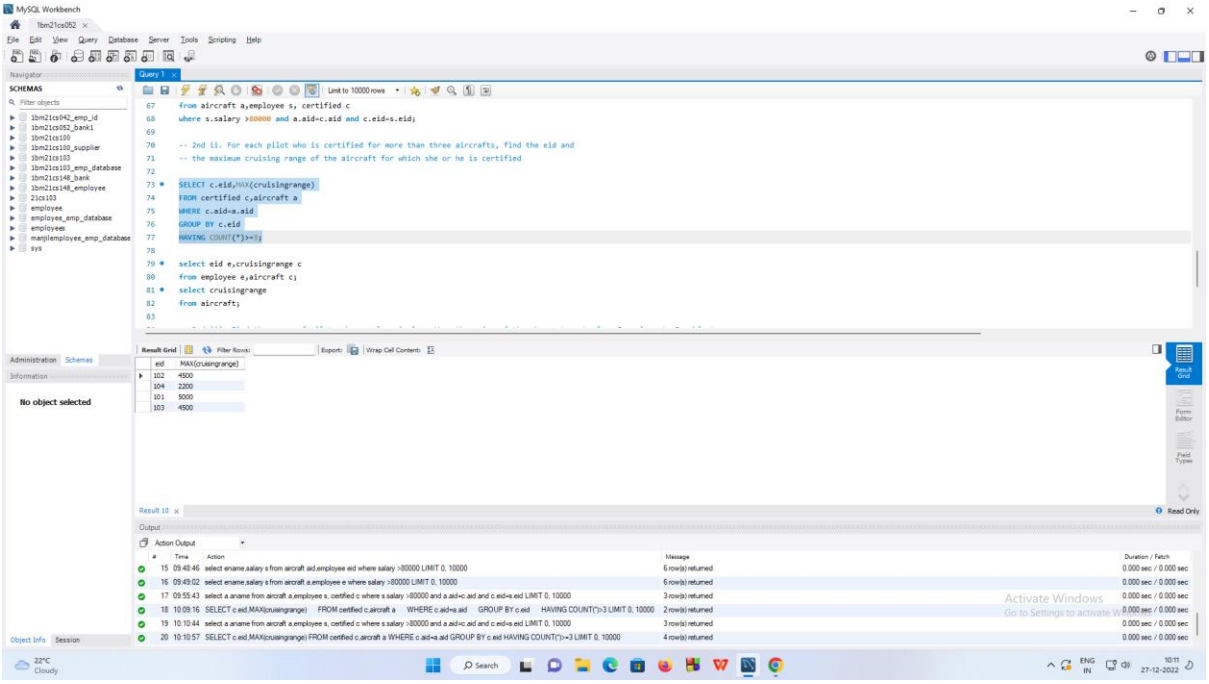
-- 1st i. Find the names of aircraft such that all pilots certified to operate them have salaries more than Rs.80,000.--

select a.aname
from aircraft a,employee s, certified c
where s.salary >80000 and a.aid=c.aid and c.eid=s.eid;



-- 2nd 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

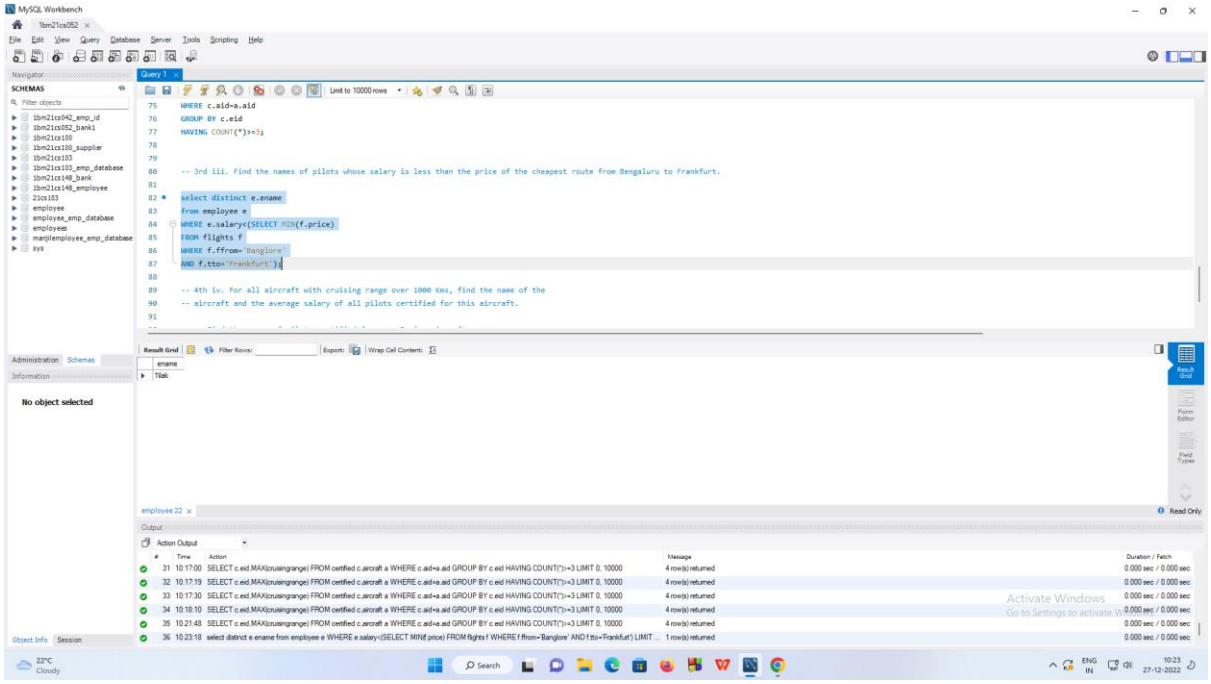
SELECT c.eid,MAX(cruisingrange)
FROM certified c,aircraft a
WHERE c.aid=a.aid



GROUP BY c.eid
HAVING COUNT(*)>=3;

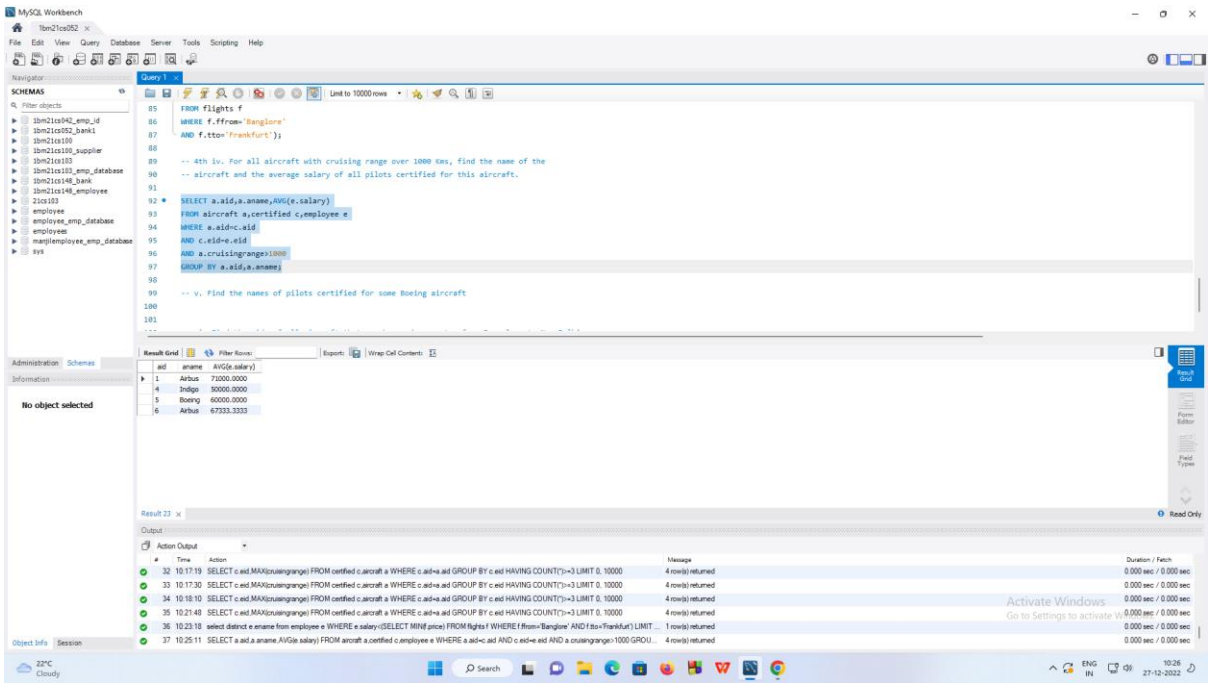
-- 3rd iii. Find the names of pilots whose salary is less than the price of the cheapest route from Bengaluru to Frankfurt.

select distinct e.ename
from employee e
WHERE e.salary<(SELECT MIN(f.price)
FROM flights f
WHERE f.ffrom='Banglore'
AND f.tto='Frankfurt');



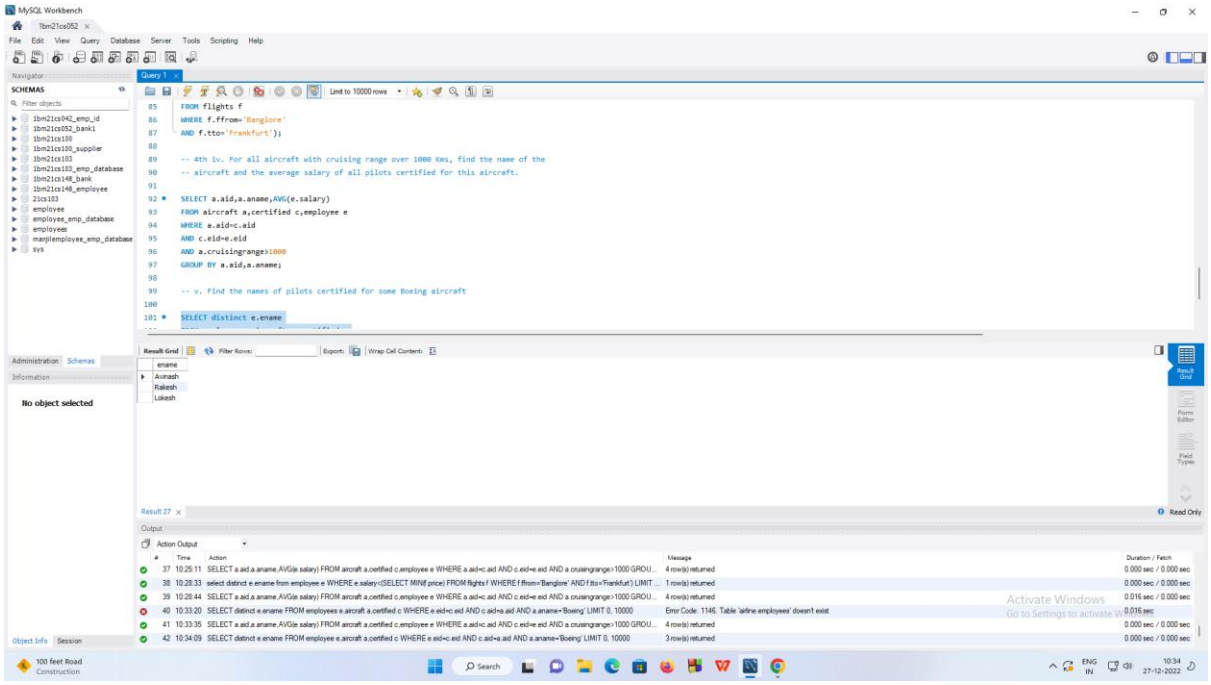
-- 4th iv. For all aircraft with cruising range over 1000 Kms, find the name of the
-- aircraft and the average salary of all pilots certified for this aircraft.

```
SELECT a.aid,a.aname,AVG(e.salary)
FROM aircraft a,certified c,employee e
WHERE a.aid=c.aid
AND c.eid=e.eid
AND a.cruisingrange>1000
GROUP BY a.aid,a.aname;
```



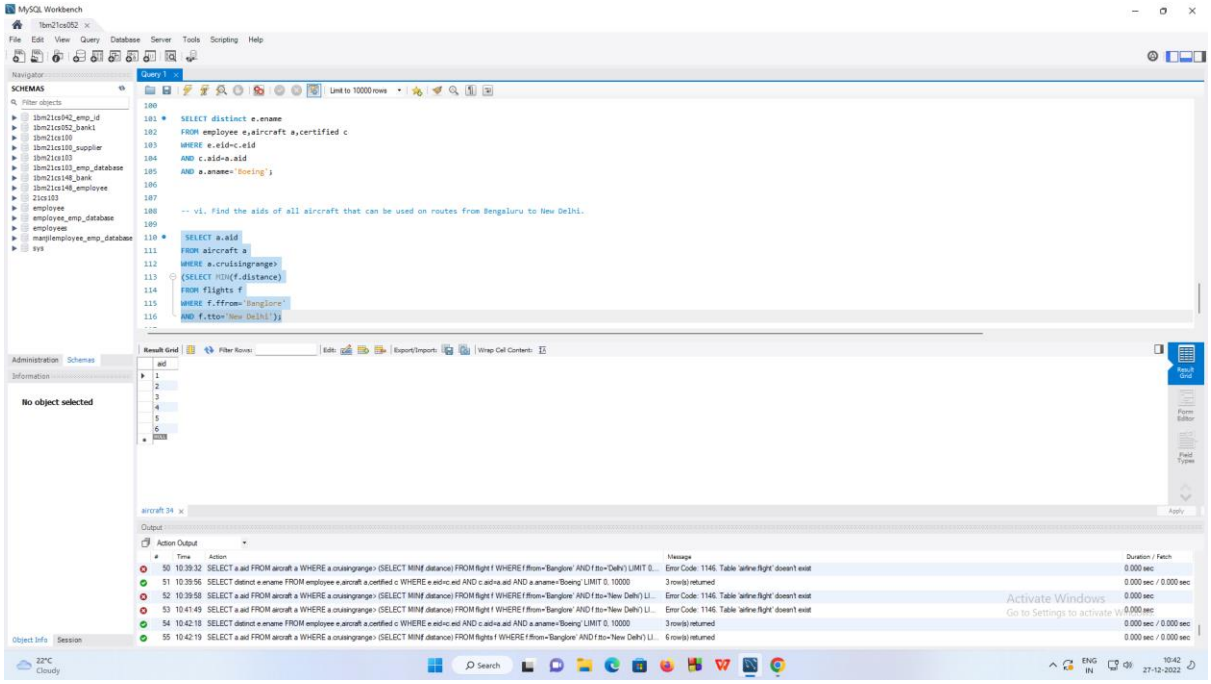
-- v. Find the names of pilots certified for some Boeing aircraft

```
SELECT distinct e.ename
FROM employee e,aircraft a,certified c
WHERE e.eid=c.eid
AND c.aid=a.aid
AND a.aname='Boeing';
```



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

```
 SELECT a.aid
FROM aircraft a
WHERE a.cruisingrange>
(SELECT MIN(f.distance)
FROM flights f
WHERE f.ffrom='Banglore'
AND f.tto='New Delhi');
```


MySQL Workbench
1bm21cs052
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
1bm21cs042_emp_id
1bm21cs052_bank1
1bm21cs100
1bm21cs100_supplier
1bm21cs103
1bm21cs103_emp_database
1bm21cs148_bank
1bm21cs148_employee
21cs103
employee
employee_emp_database
employees
manjilemployee_emp_database
sys
Administration Schemas
Information
No object selected
Object Info Session
Query 1
Limit to 10000 rows
100
101 SELECT distinct e.ename
102 FROM employee e,aircraft a,certified c
103 WHERE e.eid=c.eid
104 AND c.aid=a.aid
105 AND a.aname='Boeing';
106
107
108 -- vi. Find the aids of all aircraft that can be used on routes from Bengaluru to New Delhi.
109
110 SELECT a.aid
111 FROM aircraft a
112 WHERE a.cruisingrange>
113 (SELECT MIN(f.distance)
114 FROM flights f
115 WHERE f.ffrom='Banglore'
116 AND f.tto='New Delhi');
Result Grid
Filter Rows:
Edit:
Export/Import:
Wrap Cell Content:
aid
1
2
3
4
5
6
aircraft 34
Output
Action Output
Time Action Message Duration / Fetch
50 10:39:32 SELECT a.aid FROM aircraft a WHERE a.cruisingrange> (SELECT MIN(f.distance) FROM flight f WHERE f.ffrom='Banglore' AND f.tto='Delhi') LIMIT 0... Error Code: 1146. Table 'airline.flight' doesn't exist 0.000 sec
51 10:39:56 SELECT distinct e.ename FROM employee e,aircraft a,certified c WHERE e.eid=c.eid AND c.aid=a.aid AND a.aname='Boeing' LIMIT 0, 10000 3 row(s) returned 0.000 sec / 0.000 sec
52 10:39:58 SELECT a.aid FROM aircraft a WHERE a.cruisingrange> (SELECT MIN(f.distance) FROM flight f WHERE f.ffrom='Banglore' AND f.tto='New Delhi') LI... Error Code: 1146. Table 'airline.flight' doesn't exist 0.000 sec
53 10:41:49 SELECT a.aid FROM aircraft a WHERE a.cruisingrange> (SELECT MIN(f.distance) FROM flight f WHERE f.ffrom='Banglore' AND f.tto='New Delhi') LI... Error Code: 1146. Table 'airline.flight' doesn't exist 0.000 sec
54 10:42:18 SELECT distinct e.ename FROM employee e,aircraft a,certified c WHERE e.eid=c.eid AND c.aid=a.aid AND a.aname='Boeing' LIMIT 0, 10000 3 row(s) returned 0.000 sec / 0.000 sec
55 10:42:19 SELECT a.aid FROM aircraft a WHERE a.cruisingrange> (SELECT MIN(f.distance) FROM flights f WHERE f.ffrom='Banglore' AND f.tto='New Delhi') LI... 6 row(s) returned 0.000 sec / 0.000 sec
Activate Windows
Go to Settings to activate Windows.
22°C Cloudy
Search
ENG IN
10:42 27-12-2022