DIVYASHREE K 1BM19CS054

CSE-4A

Question:-

Program 5:

Consider the following database that keeps track of airline flight information: FLIGHTS(flno: integer, from: string, to: string, distance: integer, departs: time, arrives: time, price: integer) AIRCRAFT(aid: integer, aname: string, cruisingrange: integer) CERTIFIED(eid: integer, aid: integer) EMPLOYEES(eid: integer, ename: string, salary: integer) Note that the Employees relation describes pilots and other kinds of employees as well; Every pilot is certified for some aircraft, and only pilots are certified to fly. Write each of the

following queries in SQL. i. Find the names of aircraft such that all pilots certified to operate them have salaries more than Rs.80,000. 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. iii. Find the names of pilots whose salary is less than the price of the cheapest route from Bengaluru to Frankfurt. iv. For all aircraft with cruisingrange over 1000 Kms, find the name of the aircraft and the average salary of all pilots certified for this aircraft. v. Find the names of pilots certified for some Boeing aircraft. vi. Find the aids of all aircraft that can be used on routes from Bengaluru to New Delhi. vii. A customer wants to travel from Bangalore to Kolkata New with no more than two changes of flight. List the choice of

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departure times from Madison if the
customer wants to arrive in Kolkata by 6
p.m.
Program 5:
CREATE DATABASE
AIRLINE_FLIGHT_DATABASE;
USE AIRLINE_FLIGHT_DATABASE;
CREATE TABLE FLIGHTS
   flno int,
  ffrom varchar(40),
  tto varchar(40),
  distance int,
```

```
departs datetime,
  arrives datetime,
  price int,
  primary key(flno)
);
CREATE TABLE AIRCRAFT
   aid int,
  aname varchar(40),
  cruisingrange int,
   primary key(aid)
);
```

```
CREATE TABLE EMPLOYEES
   eid int,
  ename varchar(40),
  salary int,
  primary key(eid)
);
CREATE TABLE CERTIFIED
   eid int,
  aid int,
  FOREIGN KEY(aid) REFERENCES
AIRCRAFT(aid),
```

FOREIGN KEY(eid) REFERENCES EMPLOYEES(eid));

INSERT INTO FLIGHTS

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VALUES
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(101,"Bangalore","Delhi",2500,'2005-

05-13:07:15:31.000000','2005-05-

13:07:15:31.000000',5000),

(102, "Bangalore", "Lucknow", 3000, '

2013-05-05:07:15:31.000000','2013-

05-05:11:15:31.000000',6000),

(103,"Lucknow","Delhi",500,'2013-

05-05:12:15:31.000000','2013-05-

05:17:15:31.000000',3000),

(107, "Bangalore", "Frankfurt", 8000, '

2013-05-05:07:15:31.000000','2013-

05-05:22:15:31.000000',60000),

(104, "Bangalore", "Frankfurt", 8500, '

2013-05-05:07:15:31.000000','2013-

05-05:23:15:31.000000',75000),

(105, "Kolkata", "Delhi", 3400, '2013-

05-05:07:15:31.000000','2013-05-

05:09:15:31.000000',7000);

SELECT * FROM FLIGHTS;

INSERT INTO AIRCRAFT

VALUES

(101,747,3000),(102,"Boeing",900),(103,647,800),(104,"Dreamliner",10000),

(105,"Boeing",3500),(106,707,1500),(107,"Dream",120000);
SELECT * FROM AIRCRAFT;

INSERT INTO EMPLOYEES

VALUES (701,"A",50000),(702,"B",100000),(703,"C",150000),(704,"D",90000),

(705,"E",40000),(706,"F",60000),(707,"G",90000);

SELECT * FROM EMPLOYEES;

INSERT INTO CERTIFIED

VALUES (701,101),(701,102),(701,106),(701,105),(702,104),(703,104),(704,104),(702,107),

(703,107),(704,107),(702,101),(703, 105),(704,105),(705,103); SELECT * FROM CERTIFIED;

SELECT distinct a.aname

FROM AIRCRAFT a, EMPLOYEES e, CERTIFIED c

WHERE a.aid=c.aid and e.eid=c.eid and e.salary>80000;

SELECT e.eid, e.ename, max (a. cruisingrange)

FROM EMPLOYEES e, CERTIFIED c, AIRCRAFT a

WHERE e.eid=c.eid and a.aid=c.aid group by e.ename

having count(c.aid)>3;

SELECT e.ename

FROM EMPLOYEES e

WHERE salary < (select min(price)

from FLIGHTS

where ffrom="Bangalore" and tto="Frankfurt");

SELECT

a.aname, a.cruising range, avg(e.salary)

FROM AIRCRAFT a, EMPLOYEES e, CERTIFIED c

WHERE c.eid=e.eid and c.aid=a.aid

group by a.aname

having a.cruisingrange > 1000;

SELECT distinct e.ename

FROM EMPLOYEES e, CERTIFIED c, AIRCRAFT a

WHERE e.eid=c.eid and a.aid=c.aid and aname like "Boeing";

SELECT a.aid

FROM AIRCRAFT a

WHERE a. cruisingrange >= (select distance

from FLIGHTS

where ffrom="Bangalore" and tto="Delhi");

SELECT f.ffrom,f.tto,f.arrives

FROM FLIGHTS f

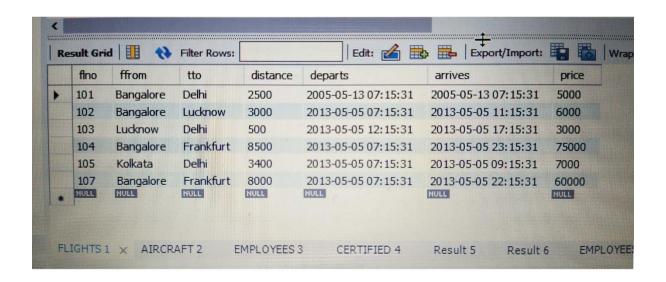
WHERE (f.ffrom="Bangalore" and f.tto=(select ffrom

from

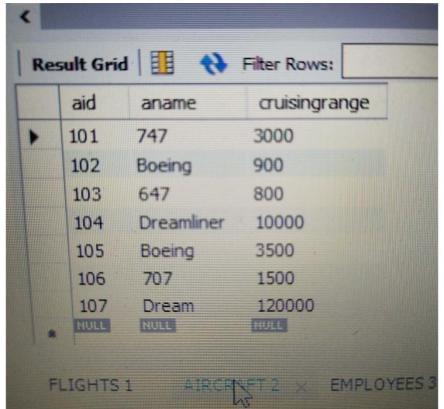
FLIGHTS

where tto="Kolkata")) or f.tto="Kolkata";

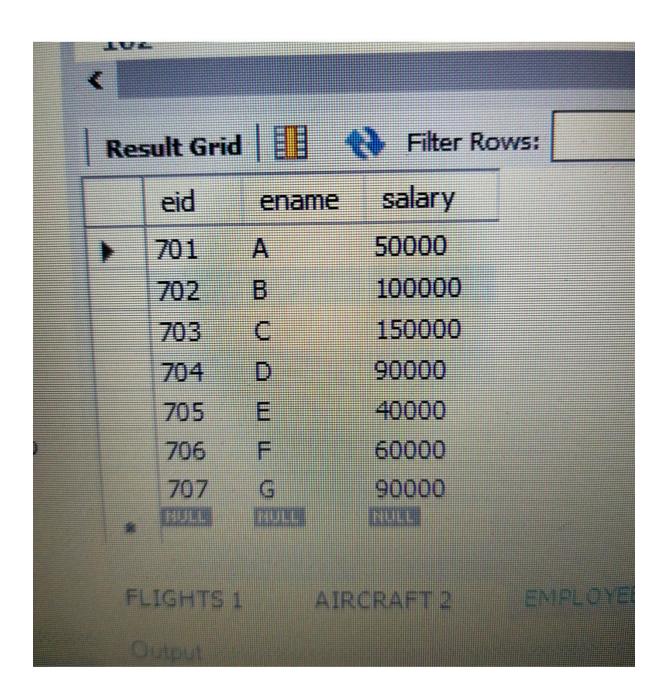
Output:

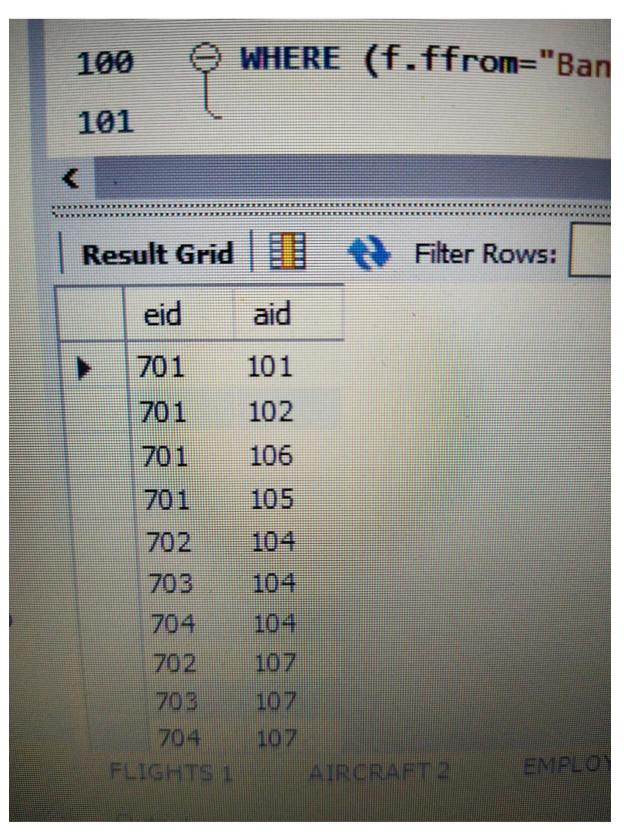


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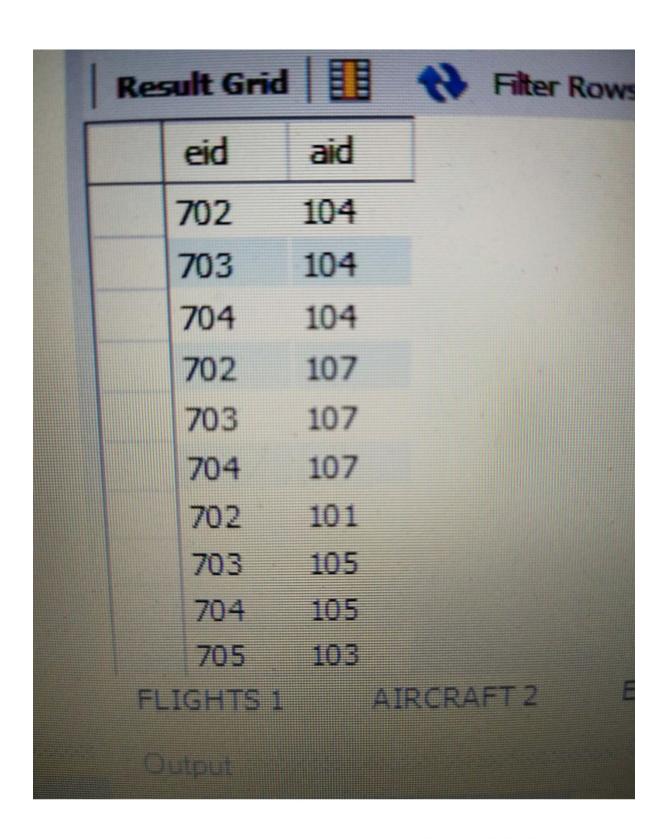


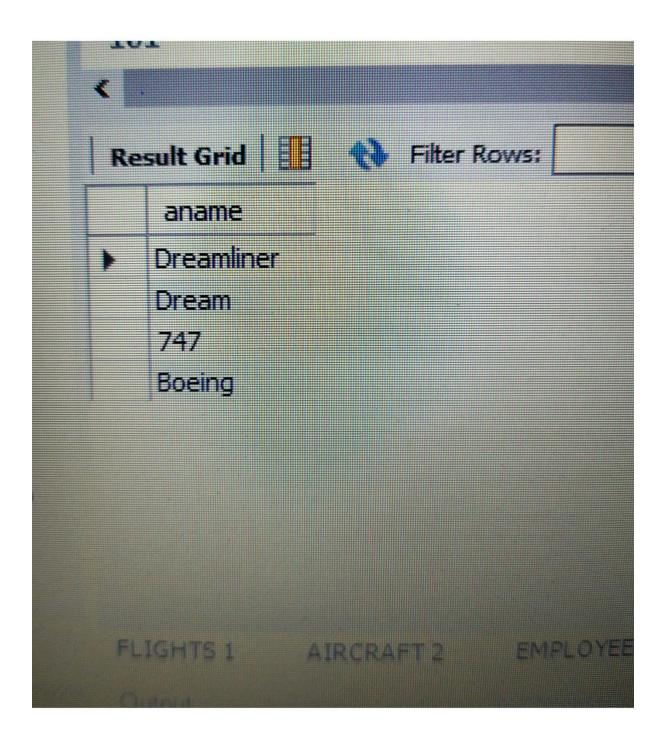
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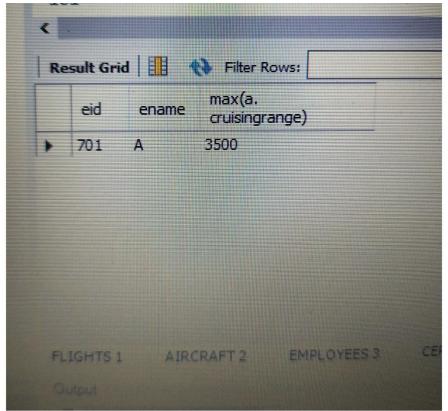




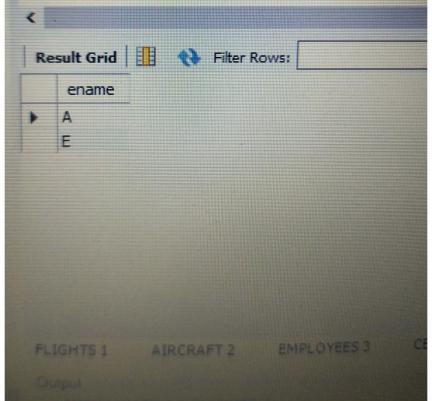
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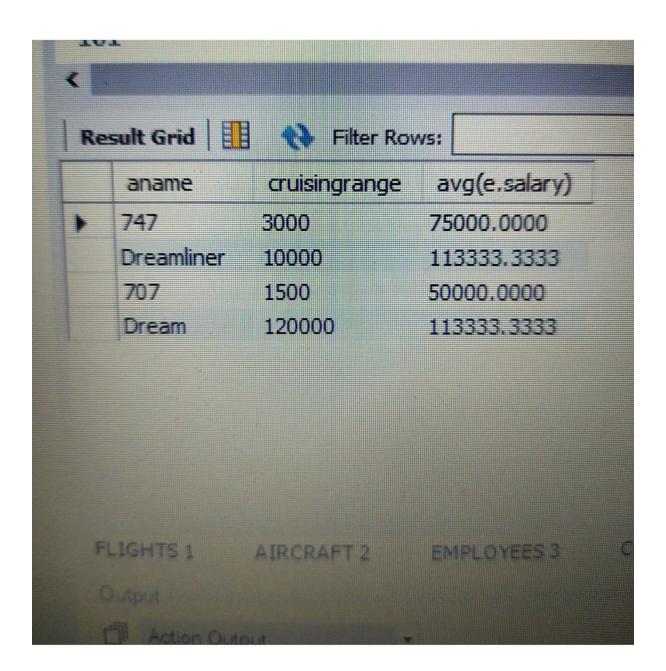


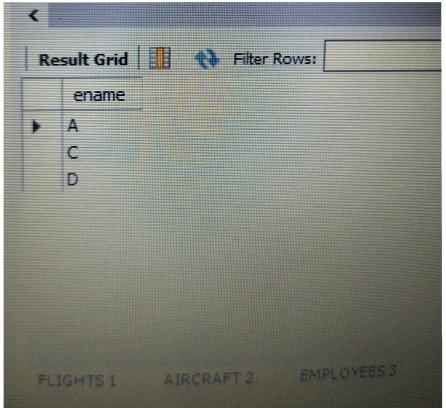


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