Problem : 1

The following relations keep track of airline flight information:

Flights(flno :integer, ffrom:String,fto:String, distance:Integer, departs:time, arrives:time, price:real)

flno →Primary Key

ffrom,fto,distance,departs,arrives,price → not null

Aircraft(aid:integer, aname: string, cruisingrange:integer)

aid → refers flight(flno)

aname, cruisingrange → not null

Certified(eid:integer, aid:integer)

eid → refers employees(eid)

aid→refers aircraft (aid)

Employees(eid:integer, ename :String, salary:integer)

eid-→ primary key

ename,salary → not null.

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.

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

2. For each pilot who is certified for more than three aircraft, find the eid and the maximum crusingrange of the airctaft for which she or he is certified.

3. Find the names of pilots whose salary is less than the price of the cheapest route from Los Angeles to Honolulu.

4. For all aircraft with crusingrange 1000 miles, find the name of the aircraft and the average salary of all pilots certified for this aircraft.

5. Find the names of pilots certified for some 'XYZ' aircraft.

6. Find the aids of all aircraft that can be used on routes from Los Angeles to Chicago.

7. Identify the routes that can be piloted by every pilot who makes more than $100,000.

8. Print the enames of pilots who can operate planes with crusing range greater than 3000 miles but are not certified to any Boeing aircraft.

9. Compute the difference between the average salary of a pilot and the average salary of all employees (including pilots)

10. Print the name and salary of every non-pilot whose salary is more than the average salary for pilots

11. Print the names of employees who are certified only on aircrafts with cruising range longer than 1000 miles.

12. Print the names of employees who are certified only on aircrafts with cruising range longer than 1000 miles, but on at least two such aircrafts.

13. Print the names of employees who are certified only on aircrafts with cruising range longer than 1000 miles and who are certified on some Boeing aircraft.

Note:

create table flights (flno integer,ffrom varchar(20),fto varchar(20), distance
integer, departs timestamp(6),price numeric(8,2))

insert into flights
values(1001,'Chennai','pune',600,to_timestamp('14:42','hh24:mi'),6500);