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**Q.n.4)The following relations keep 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. For the above schema, perform the following.**

**a) Create the above tables by specifying primary keys and foreign keys.**

**b) Insert around 10 records in each of the tables.**

**c) Find the names of aircraft such that all pilots certified to operate them earn more than 80,000.**

**d) For each pilot who is certified for more than three aircraft, find the eid and the maximum cruising range of the aircraft that he (or she) is certified for.**

**e)Find the names of pilots whose salary is less than the price of the cheapest route from Los Angeles to Honolulu. f) Find the second highest salary of an employee.**

create database flightdatabase;

use flightdatabase;

CREATE TABLE Employees (

eid INTEGER PRIMARY KEY,

ename VARCHAR(50),

salary INTEGER

);

CREATE TABLE Aircraft (

aid INTEGER PRIMARY KEY,

aname VARCHAR(50),

cruisingrange INTEGER

);

CREATE TABLE Certified (

eid INTEGER,

aid INTEGER,

PRIMARY KEY (eid, aid),

FOREIGN KEY (eid) REFERENCES Employees(eid),

FOREIGN KEY (aid) REFERENCES Aircraft(aid)

);

CREATE TABLE Flights (

flno INTEGER PRIMARY KEY,

from\_city VARCHAR(50),

to\_city VARCHAR(50),

distance INTEGER,

departs TIME,

arrives TIME,

price INTEGER

);

-- Insert records into Employees

INSERT INTO Employees (eid, ename, salary) VALUES

(1, 'John Doe', 90000),

(2, 'Jane Smith', 85000),

(3, 'Robert Brown', 80000),

(4, 'Michael Johnson', 95000),

(5, 'Emily Davis', 70000),

(6, 'Linda Martinez', 78000),

(7, 'David Wilson', 88000),

(8, 'Susan Anderson', 82000),

(9, 'James Taylor', 91000),

(10, 'Barbara Thomas', 75000);

-- Insert records into Aircraft

INSERT INTO Aircraft (aid, aname, cruisingrange) VALUES

(1, 'Boeing 737', 3000),

(2, 'Airbus A320', 3500),

(3, 'Boeing 747', 8000),

(4, 'Concorde', 4000),

(5, 'Cessna 172', 800),

(6, 'Boeing 777', 9000),

(7, 'Airbus A380', 15000),

(8, 'Gulfstream G650', 13000),

(9, 'Embraer E190', 4000),

(10, 'Boeing 787', 14000);

-- Insert records into Certified

INSERT INTO Certified (eid, aid) VALUES

(1, 1),

(1, 2),

(1, 3),

(2, 2),

(2, 3),

(2, 4),

(3, 1),

(3, 4),

(4, 5),

(4, 6),

(5, 7),

(5, 8),

(5, 9),

(6, 6),

(7, 7),

(8, 8),

(9, 9),

(10, 10);

-- Insert records into Flights

INSERT INTO Flights (flno, from\_city, to\_city, distance, departs, arrives, price) VALUES

(1, 'Los Angeles', 'New York', 2451, '08:00:00', '16:00:00', 300),

(2, 'New York', 'London', 3451, '09:00:00', '17:00:00', 500),

(3, 'Chicago', 'Los Angeles', 1745, '10:00:00', '14:00:00', 250),

(4, 'Los Angeles', 'Honolulu', 2555, '11:00:00', '15:00:00', 450),

(5, 'San Francisco', 'Tokyo', 5141, '12:00:00', '20:00:00', 700),

(6, 'Miami', 'Los Angeles', 2345, '13:00:00', '17:00:00', 350),

(7, 'Houston', 'Chicago', 1085, '14:00:00', '16:00:00', 200),

(8, 'Dallas', 'Denver', 650, '15:00:00', '17:00:00', 150),

(9, 'Seattle', 'San Francisco', 679, '16:00:00', '18:00:00', 200),

(10, 'Atlanta', 'Orlando', 438, '17:00:00', '19:00:00', 120);

SELECT aname

FROM Aircraft A

WHERE NOT EXISTS (

SELECT 1

FROM Certified C

JOIN Employees E ON C.eid = E.eid

WHERE C.aid = A.aid AND E.salary >= 80000

);

SELECT C.eid, MAX(A.cruisingrange) AS max\_cruisingrange

FROM Certified C

JOIN Aircraft A ON C.aid = A.aid

GROUP BY C.eid

HAVING COUNT(C.aid) > 3;

SELECT E.ename

FROM Employees E

WHERE E.salary < (

SELECT MIN(F.price)

FROM Flights F

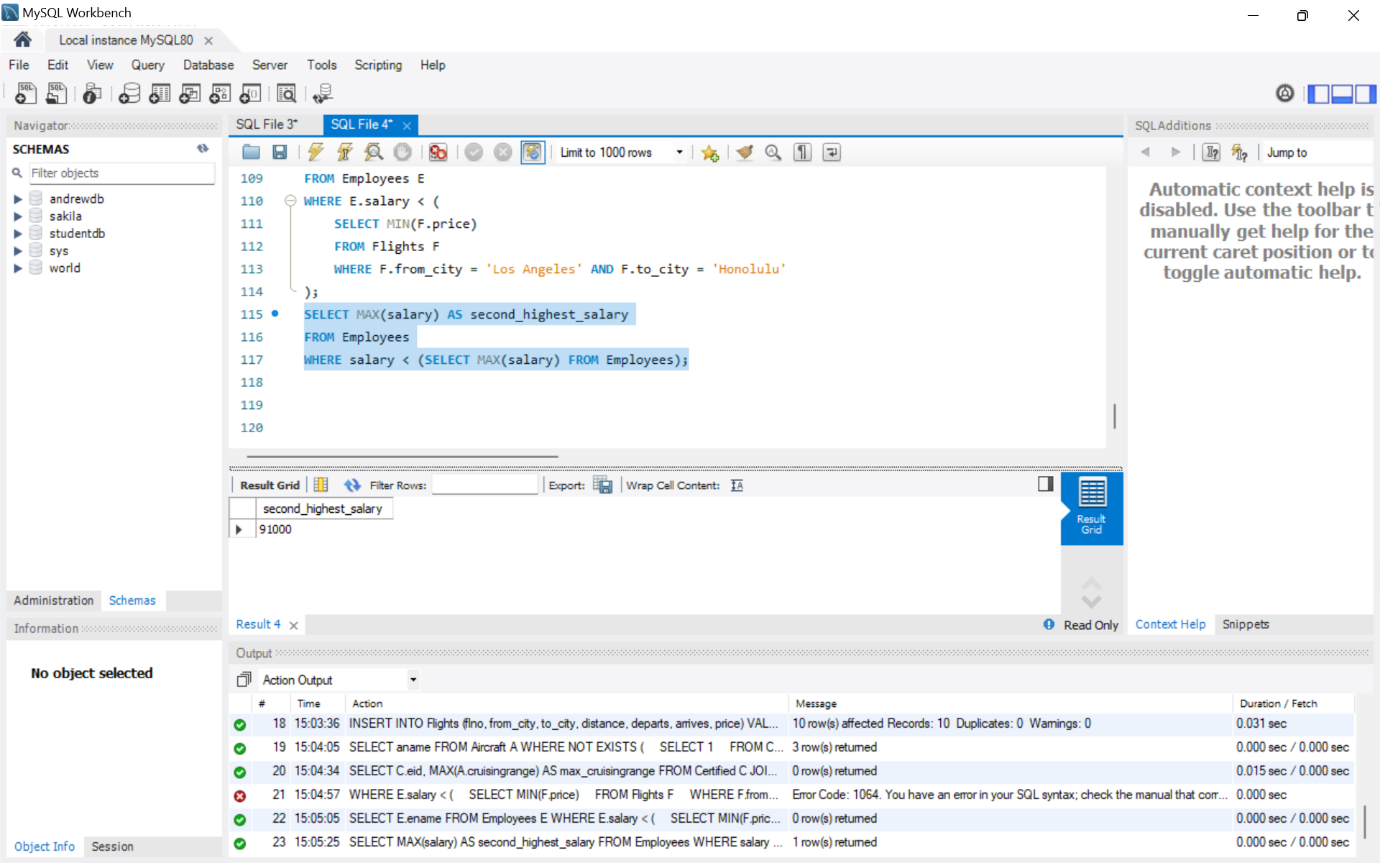
WHERE F.from\_city = 'Los Angeles' AND F.to\_city = 'Honolulu'

);

SELECT MAX(salary) AS second\_highest\_salary

FROM Employees

WHERE salary < (SELECT MAX(salary) FROM Employees);

Screenshots:A screenshot of a computer

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