LAB-5: AIRLINE FLIGHT DATABASE

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create database flights; use flights;

CREATE TABLE FLIGHTS
(FLNO INTEGER PRIMARY KEY,
FFROM VARCHAR(15),
TTO VARCHAR(15),
DISTANCE INTEGER,
DEPARTS TIMESTAMP,
ARRIVES TIMESTAMP,
PRICE INTEGER);
DESC FLIGHTS;

CREATE TABLE AIRCRAFT
(AID INTEGER PRIMARY KEY,
ANAME VARCHAR(10),
CRUISINGRANGE INTEGER);
DESC AIRCRAFT;

CREATE TABLE EMPLOYEES (EID INTEGER PRIMARY KEY, ENAME VARCHAR(15), SALARY INTEGER); DESC EMPLOYEES;

CREATE TABLE CERTIFIED

(EID INTEGER NOT NULL,
AID INTEGER NOT NULL,
PRIMARY KEY (EID, AID),
FOREIGN KEY (EID) REFERENCES EMPLOYEES (EID),
FOREIGN KEY (AID) REFERENCES AIRCRAFT (AID));
DESC CERTIFIED;
COMMIT;

insert into aircraft values(101,'747',3000); insert into aircraft values(102,'Boeing',900); insert into aircraft values(103,'647',800); insert into aircraft values(104,'Dreamliner',10000); insert into aircraft values(105,'Boeing',3500); insert into aircraft values(106,'707',1500); insert into aircraft values(107,'Dream', 120000); select * from aircraft;

insert into employees values(701,'A',50000); insert into employees values(702,'B',100000); insert into employees values(703,'C',150000);

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insert into employees values(704, 'D', 90000);
insert into employees values(705, 'E', 40000);
insert into employees values(706, 'F', 60000);
insert into employees values(707,'G',90000);
select * from employees;
insert into certified values(701,101);
insert into certified values(701,102);
insert into certified values(701,106);
insert into certified values(701,105);
insert into certified values(702,104);
insert into certified values(703,104);
insert into certified values(704,104);
insert into certified values(702,107);
insert into certified values(703,107);
insert into certified values(704,107);
insert into certified values(702,101);
insert into certified values(703,105);
insert into certified values(704,105);
insert into certified values(705,103);
select * from certified;
insert into flights values(101, 'Bangalore', 'Delhi', 2500, TIMESTAMP '2005-05-13 07:15:31', TIMESTAMP
'2005-05-13 17:15:31',5000);
insert into flights values(102, 'Bangalore', 'Lucknow', 3000, TIMESTAMP' 2005-05-13 07:15:31', TIMESTAMP
'2005-05-13 11:15:31',6000);
insert into flights values(103,'Lucknow','Delhi',500,TIMESTAMP '2005-05-13 12:15:31',TIMESTAMP '
2005-05-13 17:15:31',3000);
insert into flights values(107, 'Bangalore', 'Frankfurt', 8000, TIMESTAMP '2005-05-13
07:15:31',TIMESTAMP '2005-05-13 22:15:31',60000);
insert into flights values(104, 'Bangalore', 'Frankfurt', 8500, TIMESTAMP' 2005-05-13
07:15:31',TIMESTAMP '2005-05-13 23:15:31',75000);
insert into flights values(105, 'Kolkata', 'Delhi', 3400, TIMESTAMP '2005-05-13 07:15:31', TIMESTAMP
'2005-05-13 09:15:31',7000);
select * from Flights;
SELECT DISTINCT A.aname
FROM Aircraft A
WHERE A.Aid IN (SELECT C.aid
FROM Certified C, Employees E
WHERE C.eid = E.eid AND
NOT EXISTS ( SELECT *
FROM Employees E1
WHERE E1.eid = E.eid AND E1.salary <80000 ));
SELECT C.eid, MAX(A.cruisingrange)
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FROM Certified C, Aircraft A

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WHERE C.aid = A.aid
GROUP BY C.eid
HAVING COUNT(*) > 3;
SELECT DISTINCT E.ename
FROM Employees E
WHERE E.salary <( SELECT MIN(F.price)
                       FROM Flights F
                       WHERE F.ffrom = 'Bangalore' AND F.tto = 'Frankfurt' );
SELECT Temp.name, Temp.AvgSalary
FROM (SELECT A.aid, A.aname AS name, AVG (E.salary) AS AvgSalary
FROM Aircraft A, Certified C, Employees E
WHERE A.aid = C.aid AND C.eid = E.eid AND A.cruisingrange > 1000
GROUP BY A.aid, A.aname ) Temp;
SELECT DISTINCT E.ename
FROM Employees E, Certified C, Aircraft A
WHERE E.eid = C.eid AND C.aid = A.aid AND A.aname LIKE 'Boeing%';
SELECT A.aid
FROM Aircraft A
WHERE A.cruisingrange >( SELECT MIN(F.distance)
                       FROM Flights F
                       WHERE F.ffrom = 'Bangalore' AND F.tto = 'Frankfurt' );
SELECT F. departs
FROM Flights F
WHERE F.flno IN ( ( SELECT F0.flno
FROM Flights FO
WHERE F0.ffrom = 'Bangalore' AND F0.tto = 'Delhi'
AND extract(hour from F0.arrives) < 18)
UNION
(SELECT F0.flno
FROM Flights F0, Flights F1
WHERE F0.ffrom = 'Bangalore' AND F0.tto <> 'Delhi'
AND F0.tto = F1.ffrom AND F1.tto = 'Delhi'
AND F1.departs > F0.arrives
AND extract(hour from F1.arrives) < 18)
UNION
( SELECT F0.flno
FROM Flights F0, Flights F1, Flights F2
WHERE F0.ffrom = 'Bangalore'
AND F0.tto = F1.ffrom
AND F1.tto = F2.ffrom
AND F2.tto = 'Delhi'
AND F0.tto <> 'Delhi'
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AND F1.tto <> 'Delhi'

AND F1.departs > F0.arrives

AND F2.departs > F1.arrives

AND extract(hour from F2.arrives) < 18));

SELECT E.ename, E.salary

FROM Employees E

WHERE E.eid NOT IN ( SELECT DISTINCT C.eid

FROM Certified C )

AND E.salary >( SELECT AVG (E1.salary)

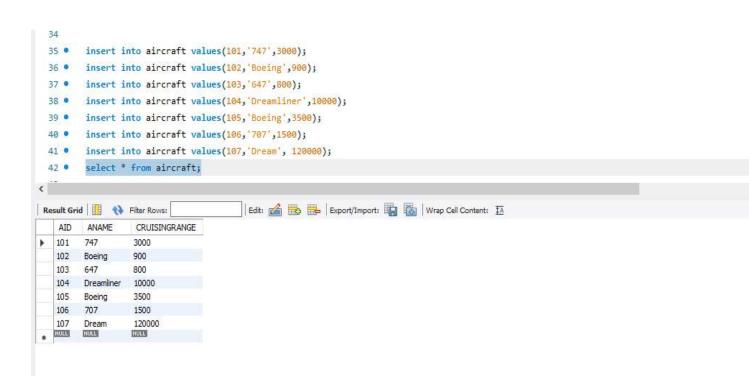
FROM Employees E1

WHERE E1.eid IN

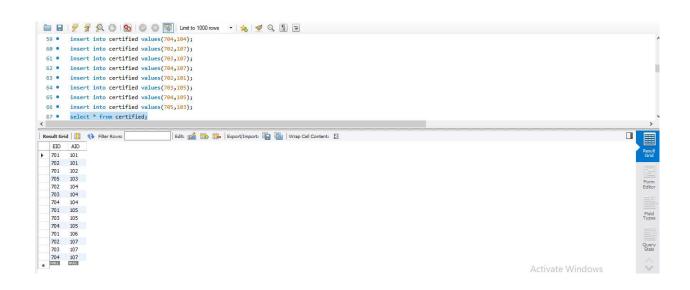
( SELECT DISTINCT C1.eid

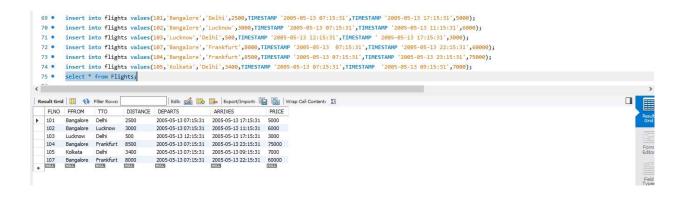
FROM Certified C1 ) );
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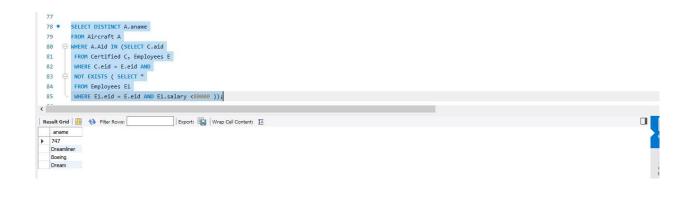
OUTPUTS:



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43
 44 •
       insert into employees values(701, 'A',50000);
 45 • insert into employees values(702, 'B', 100000);
 46 •
        insert into employees values(703, 'C',150000);
 47 •
        insert into employees values(704, 'D',90000);
 48 • insert into employees values(705, 'E',40000);
 49 • insert into employees values(706, 'F',60000);
 50 •
        insert into employees values(707, '6',90000);
        select * from employees;
 51 •
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  EID ENAME SALARY
 701
               50000
  702
       В
               100000
  703
        C
               150000
  704
       D
               90000
   705
               40000
  706
               60000
707
*
              90000
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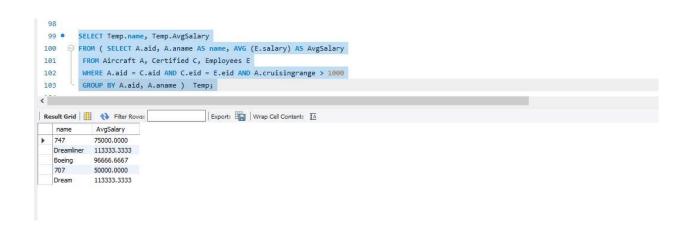


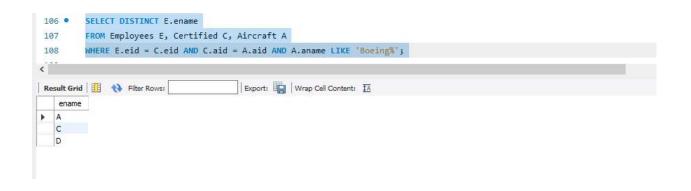


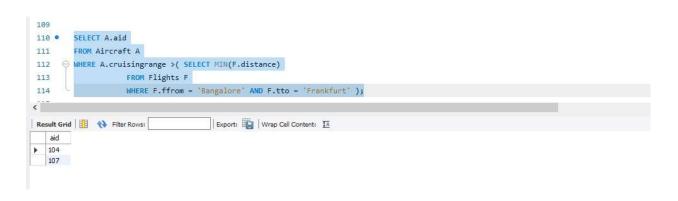


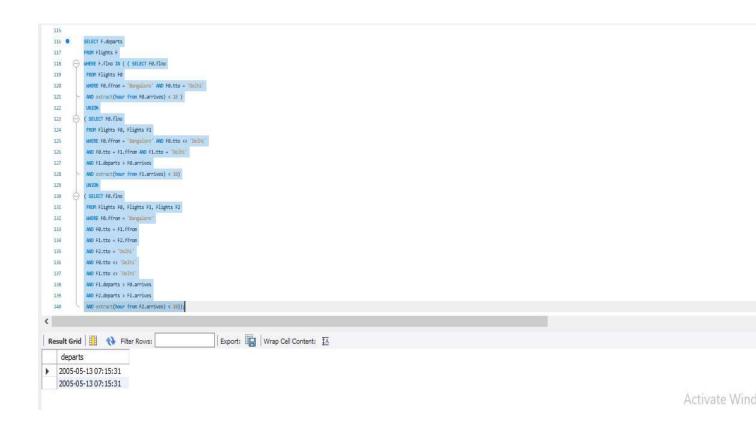












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THT
142 • SELECT E.ename, E.salary
143
      FROM Employees E
FROM Certified C )
145
146 AND E.salary >( SELECT AVG (E1.salary)
147
      FROM Employees E1
      WHERE E1.eid IN
    FROM Certified C1 ));
149
150
151
| Export: | | Wrap Cell Content: ‡Ā
 ename salary
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