Activity 2 : SQL

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1 FIND THE NAMES OF AIRCRAFT SUCH THAT ALL PILOTS CERTIFIED TO OPERATE THEM HAVE SALARIES MORE THAN $80,000

1.1 Query

Select distinct A.aname
from Aircraft A, Certified C, Employees E
where E.eid = C.eid and A.aid = C.aid and E.salary > 80000 and
    A.aid NOT in (Select A.aid
    from Aircraft A, Certified C, Employees E
    where E.eid = C.eid and A.aid = C.aid and E.salary <= 80000);

1.2 Output

aname
Jet Airways

2 FOR EACH PILOT WHO IS CERTIFIED FOR MORE THAN THREE AIRCRAFT, FIND THE EID AND THE MAXIMUM CRUISINGRANGE OF THE AIRCRAFT FOR WHICH SHE OR HE IS CERTIFIED

2.1 Query

Select E1.eid, max(A.cruisingrange)
from Aircraft A, Certified C1, Employees E1
where E1.eid = C1.eid and C1.aid = A.aid and
    E1.eid in (Select distinct E2.eid
    from Certified C2, Employees E2
    where E2.eid = C2.eid

```
        group by E2.eid
        having count(C2.aid) > 3)
        group by E1.eid;
```

2.2 Output

eid	max(A.cruisingrange)
127	7410
131	8001
135	7782
141	4136
149	7393

3 FIND THE NAMES OF PILOTS WHOSE SALARY IS LESS THAN THE PRICE OF THE CHEAPEST ROUTE FROM LOS ANGELES TO HONOLULU.

3.1 Query

```
Select distinct E.ename
from Employees E
where E.salary < (Select min(F.price)
      from Flights F where F.from_ = 'Los Angeles' and F.to_ = 'Honolulu'
       group by F.from_);
```

3.2 Output

ename
Ami Titterington
Ertha Dranfield
Neile Cashin
Val Bromont
Biddie Rattrie

4 FOR ALL AIRCRAFT WITH CRUISINGRANGE OVER 1000 MILES, FIND THE NAME OF THE AIRCRAFT AND THE AVERAGE SALARY OF ALL PILOTS CERTIFIED FOR THIS AIRCRAFT.

4.1 Query

```
select a.aname as 'aircraft name',avg( e.salary) as ' average pilot salary'
from aircraft a
inner join certified c on c.aid = a.aid
inner join employees e on e.eid = c.eid
where a.cruisingrange > 1000
group by a.aname;
```

4.2 Output

aircraft name	average pilot salary
Boeing	94119.4536
Jet Airways	99331.3839
Air India	97412.0286
Air China	99601.1400
Emirates	101026.4521

5 FIND THE NAMES OF PILOTS CERTIFIED FOR SOME BOEING AIRCRAFT

5.1 Query

select distinct e.ename
from employees e
inner join certified c on c.eid = e.eid
inner join aircraft a on c.aid = a.aid and a.aname = 'Boeing';

5.2 Output

ename
Winifred Cremen
Colleen Hassent
Dorelia Elliman
Win Sabie
Alonso Aishford

6 FIND THE AID S OF ALL AIRCRAFT THAT CAN BE USED ON ROUTES FROM LOS ANGELES TO CHICAGO

6.1 Query

select *
from aircraft a
inner join certified c on c.aid = a.aid
where a.cruisingrange >= (select distance from flights
        where from_ = 'Detroit' and to_ = 'Baliuag');

6.2 Output

aid	aname	cruisingrange	aid	eid
69	Boeing	9068	69	791
84	Air China	9474	84	747
12	Jet Airways	9666	12	952
20	Jet Blue	9110	20	525
84	Air China	9474	84	876

7 PRINT THE ENAMES OF PILOTS WHO CAN OPERATE PLANES WITH CRUISINGRANGE GREATER THAN 3000 MILES BUT ARE NOT CERTIFIED ON ANY BOEING AIRCRAFT.

7.1 Query

select distinct(E.ename)
from employees as E, certified as C, aircraft as A
where E.eid = C.eid and C.aid = A.aid and
  A.aid in (select aid
  from aircraft
  where cruisingrange > 3000 and not aname = 'Boeing');

7.2 Output

ename
Winifred Cremen
Arlette Grimmolby
Carie Syseland
Bary Coulthart
Allyce Muirden

8 COMPUTE THE DIFFERENCE BETWEEN THE AVERAGE SALARY OF A PILOT AND THE AVERAGE SALARY OF ALL EMPLOYEES (INCLUDING PILOTS).

8.1 Query

select ABS(AVG(P.salary) - AVG(E.salary))
from employees as P, employees as E, certified as C
where P.eid = C.eid ;

8.2 Output

ABS(AVG(P.salary) - AVG(E.salary))
1293.8750

9 PRINT THE NAME AND SALARY OF EVERY NONPILOT WHOSE SALARY IS MORE THAN THE AVERAGESALARY FOR PILOTS

9.1 Query

select distinct(E.ename), E.salary
from employees as E, certified as C
where not E.eid = C.eid
  and E.salary > (select AVG(salary)
  from employees as P, certified as C
  where P.eid = C.eid);

9.2 Output

ename	salary
Robbi Bellward	103415
Arlette Grimmolby	137469
Bary Coulthart	148716
Janeen MacGibbon	109640
Allyce Muirden	142358

10 PRINT THE NAMES OF EMPLOYEES WHO ARE CERTIFIED ONLY ON AIRCRAFTS WITH CRUISING RANGE LONGER THAN 1000 MILES.

10.1 Query

select distinct E.ename
from employees as E, certified as C, aircraft as A
where E.eid = C.eid and C.aid = A.aid and A.cruisingrange > 1000;

10.2 Output

ename
Winifred Cremen
Arlette Grimmolby
Carie Syseland
Bary Coulthart
Allyce Muirden

11 PRINT THE NAMES OF EMPLOYEES WHO ARE CERTIFIED ONLY ON AIRCRAFTS WITH CRUISINGRANGE LONGER THAN 1000 MILES, BUT ON AT LEAST TWO SUCH AIRCRAFTS

11.1 Query

SELECT DISTINCT E.ename
FROM Employees as E, Certified as C, Aircraft as A
WHERE E.eid = C.eid and C.aid = A.aid and A.cruisingrange > 1000 and
       C.eid in (SELECT COUNT(C.eid)
       FROM Aircraft as A, Certified as C
       WHERE A.cruisingrange > 1000
       GROUP BY C.eid
       HAVING COUNT(C.eid) > 1);

11.2 Output

ename
Pryce Loverock
Maisey Rosenschein
Brucie McCurley
Johnathon Shropsheir
Gonzales Records

12 PRINT THE NAMES OF EMPLOYEES WHO ARE CERTIFIED ONLY ON AIRCRAFTS WITH CRUISINGRANGE LONGER THAN 1000 MILES AND WHO ARE CERTIFIED ON SOME BOEING AIRCRAFT

12.1 Query

SELECT DISTINCT E.ename
FROM Employees as E, Certified as C, Aircraft as A
WHERE E.eid = C.eid AND C.aid = A.aid AND A.cruisingrange > 1000 AND A.aname = 'Boeing';

12.2 Output

ename
Winifred Cremen
Colleen Hassent
Dorelia Elliman
Win Sabie
Alonso Aishford