quiz2

> Consider the following relational schemas describing the information of students and clubs:
>
> **student(sid, name, age, gender, department)**
>
> **club(cid, name, supervisor)**
>
> **member(sid, cid, date)**
>
> Write the following queries in SQL:

> 1.Find the names of students from the CS department who is a member of the Dancing club.

```
select student.name
from student,club,member
where department = 'CS' and student.sid = member.sid and club.name = 'Dancing'
and club.cid = member.cid;
```

> 2.Find the names of students who is a member of all clubs supervised by JL SUN

```
select student.name
from student,club,member
where  student.sid = member.sid and club.supervisor = 'JL SUN' and club.cid =
member.cid
group by student.sid,student.name
having count(*) = (select(*) from club where club.supervisor = 'JL SUN');
```

> 3.Find all clubs that has girls only.

```
select cid
from (student natural join member) as A
where student.gender='F'
group by cid
having count(*)= (select count(*)
                          from member
                          where member.cid=A.cid);
```

> 4.For each department, find the percentage of the students who joins any clubs

```
select department,count(distinct member.sid)/count(distinct student.sid)
from student left outer join member on member.sid = student.sid
group by department;
```

> 5.Find the two students with the biggest age difference.

```
select A.sid,B.sid
from student as A,student as B
where A.age - B.age >= all(
                       select C.age-D.age
                       from student as C,student as D
                       );
```