For the school database given

1. Find the name and age of students that take 'database systems' course

   select s.sname, s.age
   from student s, enrolled e
   where s.snum = e.snum and e.cname = 'database systems'

   result:
   
   sname  age
   'Joseph Thompson', '19'
   'Christopher Garcia', '20'
   'Lisa Walker', '17'
   'Paul Hall', '18'
   'Ana Lopez', '19'

2. For each major, that have at least 2 students, find the number of students

   select s.major, count(*)
   from student s
   group by s.major
   having count(*) > 2

   result

   Computer science, 4

   if having clause is removed

   'Accounting', '1'
   'Animal Science', '1'
   'Architecture', '1'
   'Civil Engineering', '1'
   'Computer Engineering', '2'
   'Computer Science', '4'
   'Economics', '1'
   'Education', '1'
   'Electrical Engineering', '2'
   'English', '1'
   'Finance', '2'
   'History', '1'
   'Kinesiology', '1'
   'Law', '1'
   'Mechanical Engineering', '1'
   'Psychology', '2'
   'Veterinary Medicine', '1'
3. Find the name of the teacher (from faculty table) that gives ‘database systems’ course using a nested query

```sql
select f.fname
from faculty f
where f.fid = (select c.fid
               from class c
               where c.name = 'database systems')
```

result
Ivana Teach

4. For each standing find the average age of students

```sql
select s.standing, avg(s.age)
from student s
group by s.standing
```

result:

<table>
<thead>
<tr>
<th>standing</th>
<th>avg(s.age)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FR</td>
<td>17.66</td>
</tr>
<tr>
<td>JR</td>
<td>19.5</td>
</tr>
<tr>
<td>SO</td>
<td>18.4</td>
</tr>
<tr>
<td>SR</td>
<td>20.71</td>
</tr>
</tbody>
</table>