create stud_dept(sid,sname,dept) and perform group by functions

```
create table stud_dept (
    sid int,
    sname varchar(255),
    dept varchar(255)
);


insert into stud_dept (sid, sname, dept)
values
    (1, 'john', 'math'),
    (2, 'jane', 'math'),
    (3, 'mike', 'physics'),
    (4, 'alice', 'physics'),
    (5, 'bob', 'chemistry');


select dept, count(*) as num_students
from stud_dept
group by dept;

select sum(num_students) as total_students
from (
    select count(*) as num_students
    from stud_dept
    group by dept
) as student_counts;



select dept, count(*) as num_students
from stud_dept
group by dept
order by num_students desc
limit 1; -- for max

select dept, count(*) as num_students
from stud_dept
group by dept
order by num_students
limit 1; -- for min



select avg(num_students) as avg_students_per_dept
from (
    select count(*) as num_students
    from stud_dept
    group by dept
) as student_counts;
```