basic sql iii(1)

1. 各学院有多少学生，按学院名称降序排序

select dept\_name, count(\*) as student\_count

from student, department

where student.dept\_name = department.dept\_name

group by student.dept\_name

order by department.dept\_name desc;

1. 列出有大于等于310名学生参加的课程的课程id、课程名的前5个字符、以及学期学年等信息

select course\_id, left(title, 5) as course\_short\_name, semester, year

from takes, course

where takes.course\_id = course.course\_id

group by takes.course\_id,title, semester, year

having count(distinct id) >= 310；

1. 列出所有由Dale教过的学生的学生id、学生姓名等信息，不要有重复记录

select distinct student.id, student.name, student.dept\_name

from student, instructor, teaches

where teaches.id = instructor.id and instructor.name = 'dale';

1. 成绩均在a,a+,a-以上的学生及其所有课程和成绩

select student.id, student.name, student.dept\_name, takes.course\_id, takes.sec\_id, takes.semester, takes.year, takes.grade

from student, takes

where student.id = takes.id and takes.grade in ('a', 'a+', 'a-')

order by student.name asc, takes.course\_id asc;

1. 获得所有学院中预算的均值和中位数

with temp1 as (

select budget ,row\_number()over(partition by null order by budget) rk,

count(\*)over() total

from department)

select avg(budget) as med\_salary

from temp1

where rk between total/2 and total/2+1;

select avg(budget) as avg\_salary

from department;

basic sql iii (2)

1. 各学院有多少教师数，按学院名称排序

select dept\_name, count(\*) as teacher\_count

from instructor

group by dept\_name

order by dept\_name;

1. 列出由多个教师讲授的课程的课程id、课程名的前5个字符、以及学期学年等信息

select course\_id, left(title, 5) as course\_short\_name, semester, year

from teaches, course

where teaches.course\_id = course.course\_id

group by course\_id,title, semester, year

having count(distinct id) > 1;

1. 教师号id为14365的老师所在学院的学生总数

select count(\*) as student\_count

from student, department

where student.dept\_name = department.dept\_name and department.dept\_name =

(select dept\_name from instructor where id = 14365);

1. 成绩均在a,a+,a-以上的学生及其所在学院

select student.id, student.name, student.dept\_name

from student

where student.dept\_name in

(select department.dept\_name

from takes, course, department

where takes.course\_id = course.course\_id and course.dept\_name = department.dept\_name and takes.grade in ('a', 'a+', 'a-'))

order by student.id asc;

1. 获得全体教师中工资的均值和中位数

with temp2 as (

select salary ,row\_number()over(partition by null order by salary) rk,

count(\*)over() total

from instructor)

select avg(salary) as med\_salary

from temp2

where rk between total/2 and total/2+1;

select avg(salary) as avg\_salary from instructor;