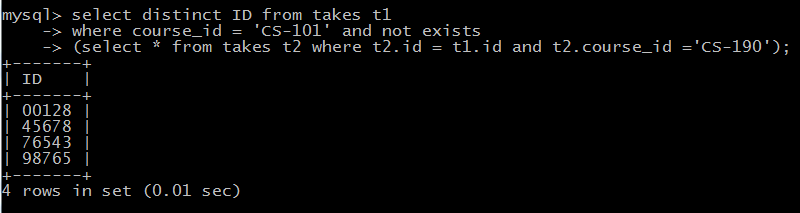
王子怡 2019212212280 软工192

* 列出所有学了CS-101但没有学CS-190的学生学号

select distinct ID from takes as t1

where course\_id = ‘CS-101’ and not exists

(select \* from takes as t2 where t2.id = t1.id and t2.course\_id =’CS-190’);

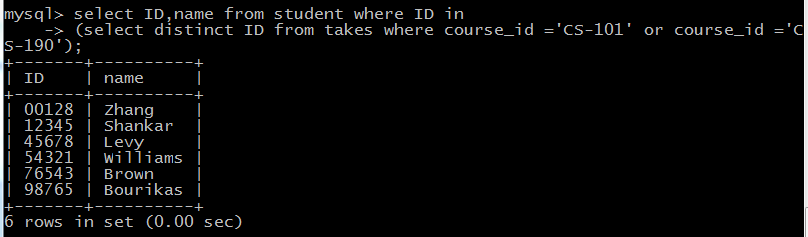


* 分别用IN和EXISTS查询上了CS-101和CS-190两门课的所有学生学号和姓名

IN:

select ID,name from student where ID in

(select distinct ID from takes where course\_id =’CS-101’ or course\_id =’CS-190);

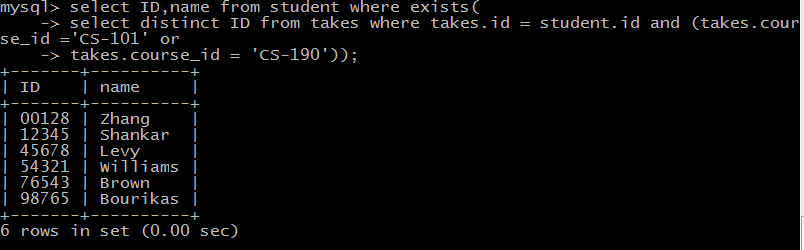


EXISTS:

select ID,name from student where exists(

select distinct ID from takes where takes.id = student.id and (takes.course\_id =’CS-101’ or

takes.course\_id = ’CS-190’));



* 查询上了“计算机科学导论”（Intro. to Computer Science）但没上“图像处理”（Image Processing）的所有学生的姓名

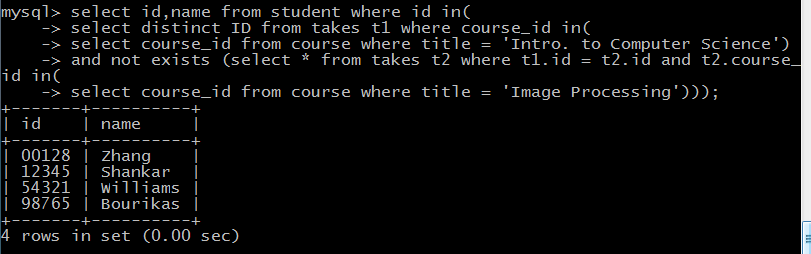
select name from student where id in(

select distinct ID from takes t1 where course\_id in(

select course\_id from course where title = ‘Intro. to Computer Science’)

and not exists (select \* from takes t2 where t1.id = t2.id and t2.course\_id in(

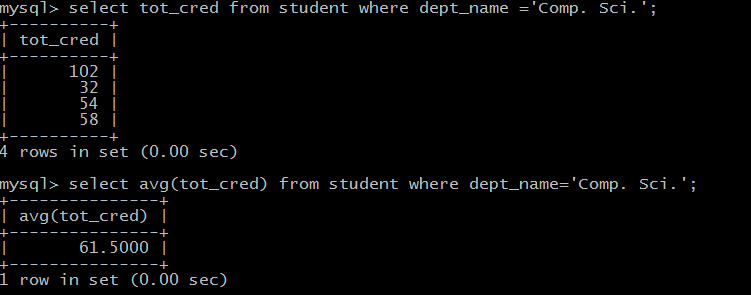
select course\_id from course where title = ‘Image Processing’)));



* 查询所有计算机系学生的平均绩点(tot\_cred)

select tot\_cred from student where dept\_name =’Comp. Sci.’;

select avg(tot\_cred) from student where dept\_name=’Comp. Sci.’;

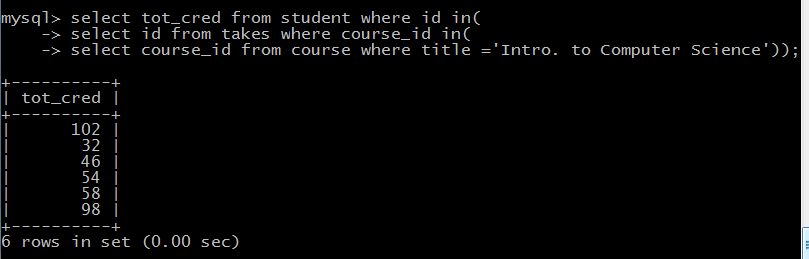


* 查询所有上了“计算机科学导论”（Intro. to Computer Science）课程的学生的平均绩点(tot\_cred)

select tot\_cred from student where id in(

select id from takes where course\_id in(

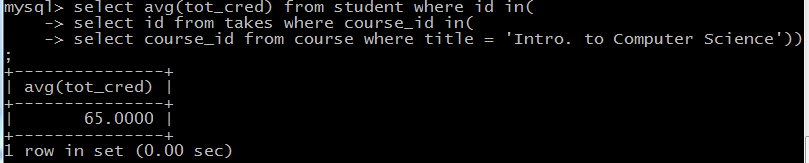
select course\_id from course where title =’Intro. to Computer Science’));



select avg(tot\_cred) from student where id in(

select id from takes where course\_id in(

select course\_id from course where title = ‘Intro. to Computer Science’));



* 查询每个系的平均成绩，只打印出平均成绩大于80的系的名称和平均成绩，并按平均成绩从大到小排序

Select dept\_name,avg(tot\_cred) from student group by dept\_name

Having avg(tot\_cred)>80 order by avg(tot\_cred);

