数据库系统及应用第三次作业

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1.1

SELECT Student.sno,Student.sname FROM Student,Course,SC WHERE Student.sno=SC.sno and Course.cno=SC.cno and SC.score IS NULL and Course.type=0;

1.2

(SELECT sname FROM Student WHERE sno IN (SELECT DISTINCT SC.sno FROM Course, SC WHERE Course.cno=SC.cno and Course.type=1 GROUP BY SC.sno HAVING sum(Course.credit) > 16))

INTERSECTS

(SELECT sname FROM Student WHERE sno IN (SELECT DISTINCT SC.sno FROM Course, SC WHERE Course.cno=SC.cno and Course.type=2 GROUP BY SC.sno HAVING min(SC.score) > 75));

1.3

SET row\_num=0;（定义行号变量）

SELECT student.sno, student.name, top\_student.avg\_score, top\_student.overall\_score FROM  (SELECT row\_order.sno, avg(SC.score) as avg\_score, row\_order.overall\_score

FROM

(SELECT sno,sum(score) as overall\_score,row\_num=row\_num+1 as row\_num FROM SC GROUP BY sno ORDER BY overall\_score DESC) row\_order, SC, Course

WHERE

row\_order.sno=SC.sno and course.con=SC.cno and row\_order.row\_num <= (row\_num\*0.5) and course.type=0 ORDER BY avg\_score GROUP By row\_order.sno DESC LIMIT 10) top\_student, Student WHERE student.sno=top\_student.sno;

1.4

(SELECT course.name,course.type,av\_s.avg\_score,pass\_rate.rate FROM (SELECT c.cno,avg(SC.score) as avg\_score FROM SC,Course WHERE course.cno=SC.cno GROUP BY course.cno) av\_s,(SELECT all.cno,not\_pass.bellow/all.all\_score as rate FROM (SELECT cno, count(\*) as bellow FROM SC WHERE score < 60 GROUP BY cno) not\_pass,(SELECT cno, count(\*) as all\_score FROM SC GROUP BY cno) all WHERE all.cno=not\_pass.cno) pass\_rate,Course WHERE course.cno=av\_s.cno and course.cno=pass\_rate.cno and course.type=2)  
UNION  
(SELECT course.name,course.type,av\_s.avg\_score,pass\_rate.rate FROM (SELECT c.cno,avg(SC.score) as avg\_score FROM SC,Course WHERE course.cno=SC.cno GROUP BY course.cno) av\_s,(SELECT all.cno,not\_pass.bellow/all.all\_score as rate FROM (SELECT cno, count(\*) as bellow FROM SC WHERE score < 60 GROUP BY cno) not\_pass,(SELECT cno, count(\*) as all\_score FROM SC GROUP BY cno) all WHERE all.cno=not\_pass.cno) pass\_rate,Course WHERE course.cno=av\_s.cno and course.cno=pass\_rate.cno and course.type<>2 ORDER BY course.type);

1.5

DELETE FROM SC WHERE concat(sno,cno,term) NOT IN (SELECT concat(sno,cno,max(term)) FROM SC GROUP BY sno,cno);