一、第四版教材P148-149，第8，10题。

8．请用SQL的GRANT 和REVOKE语句(加上视图机制)完成以下授权定义或存取控制功能:

( a ）用户王明对两个表有SELECT 权力。

GRANT SELECT ON 职工,部门

TO 王明

( b ）用户李勇对两个表有INSERT 和DELETE 权力。

GRANT INSERT,DELETE ON 职工,部门

TO 李勇

( c ) 每个职工只对自己的记录有SELECT 权力。

CREATE VIEW 张三记录 AS

SELECT \*

FROM 职工

WHERE 职工.姓名=‘张三’

GRANT SELECT ON张三记录 TO 张三

*GRANT SELECT ON 职工*

*WHEN USER()=NAME*

*TO ALL;*

( d ）用户刘星对职工表有SELECT 权力，对工资字段具有更新权力。

GRANT SELECT,UPDATE(工资) ON 职工

TO 刘星

( e ）用户张新具有修改这两个表的结构的权力。

GRANT ALTER TABLE ON 职工,部门

TO 张新;

( f ）用户周平具有对两个表所有权力（读，插，改，删数据），并具有给其他用户授权的权力。

GRANT ALL PRIVILIGES ON 职工,部门

TO 周平

WITH GRANT OPTION;

( g ）用户杨兰具有从每个部门职工中SELECT 最高工资、最低工资、平均工资的权力，他不能查看每个人的工资。

CREATE VIEW 部门工资 AS

SELECT 部门.名称,MAX(工资),MIN(工资),AVG(工资)

FROM 职工,部门

WHERE 职工.部门号=部门.部门号

GROUP BY 职工.部门号

GRANT SELECT ON 部门工资

TO 杨兰;

9 ．把习题8 中（1）---（7）的每一种情况，撤销各用户所授予的权力

(1) REVOKE SELECT ON 职工，部门 FROM 王明；

(2) REVOKE INSERT , DELETE ON 职工，部门 FROM 李勇；

(3) REOVKE SELECT ON 职工  
WHEN USER ( ) =NAME  
FROM ALI ;

(4) REVOKE SELECT , UPDATE ON 职工  
FROM 刘星；

(5) REVOKE ALTER TABLE ON 职工，部门  
FROM 张新；

(6) REVOKE ALL PRIVILIGES ON 职工，部门  
FROM 周平；

(7) REVOKE SELECT ON 部门工资  
FROM 杨兰；  
DROP VIEW 部门工资；

1.查询所有年龄小于19岁的张姓男同学信息；

Select \* From student Where ssex=’男’ and and sage < 19 and sname like ‘张%’

2．查询选修了“王红”老师的“数据结构”课程的学生姓名；

Select student.sname From student,sc,course

Where student.sno=sc.sno And sc.cno=course.cno

And course.cname=’数据结构’ And course.teacher=’王红’

Select sname From student Where sno in

(Select sno From sc Where cno in

(select cno from sc Where cname=’数据结构’ And course.teacher=’张三’))

3．查询存在两名及以上不及格成绩的课程名、最低成绩、最高成绩和平均成绩；

Select course.cname,Min(sc.score),Max(sc.score),Avg(sc.score)

From course,sc Where course.cno=sc.cno

Where sc.cno in (select cno from sc where score < 60 group by cno having count(\*) > 1)

Group By course.cname

Having Min(score)>=60

Count(\*) = sum(student.sno)

4．查询选修了“李四”老师教授 “王红”同学的所有课程的同学姓名；

Select sname From student Where sno in

(Select sno From sc sc1 Where Not Exists

(Select \* From sc sc2 Where cno in

(Select cno From course Where teacher=’李四’)

And sno in (Select sno From student Where sname=’王红’)

And Not Exists

(Select \* From sc sc3

Where sc3.sno=sc1.sno And sc3.cno=sc2.cno)

)

)

Select sname From student Where sno in

(Select sno From sc sc1 Where Not Exists

(Select \* From sc sc2,course c1,student s1

Where sc2.cno=c1.cno And sc2.sno=s1.sno

And s1.sname='王红' And c1.teacher='李四'

And Not Exists

(Select \* From sc sc3

Where sc3.sno=sc1.sno And sc3.cno=sc2.cno)

)

)

5．若某同学存在次高课程成绩，查询输出学号、姓名及次高成绩；

Select sc1.sno,student.sname,Max(sc1.score) From sc sc1,student

Where sc1.sno=student.sno And score < (Select Max(score) From sc Where sno = sc1.sno)

Group By sc1.sno,student.sname

Select sc1.sno,student.sname,Max(sc1.score) From sc sc1,student

Where sc1.sno=student.sno And score < Any (Select score From sc Where sno = sc1.sno)

Group By sc1.sno,student.sname

Select sc1.sno,student.sname,Max(sc1.score) From student,sc sc1,sc sc2

Where sc1.sno=student.sno And sc1.sno=sc2.sno And sc1.score < sc2.score

Group By sc1.sno,student.sname

Top K查询

top k [percent] [with ties]

top k：取查询结果的前k行；

top k percent：取查询结果的前k%行；

with ties：包括并列的结果。

6．若“操作系统”成绩不为空，则更新每个同学的“数据库”课程成绩为“操作系统”课程成绩。

Update sc Set score =

(Select score From sc sc1

Where sc1.sno=sc.sno And sc1.cno in

(Select cno From course Where cname =’操作系统’))

Where cno in (Select cno From course Where cname =’数据库’)

And Exists (Select \* From sc sc2

Where sc2.sno = sc.sno And sc2.score is not null And cno in

(Select cno From course Where cname =’操作系统’))