

# 第六次实验

(1)定义选课信息和课程名称的视图 VIEWC;

```
1 create view viewc as
2 select
   choices.no, choices.sid, choices.tid, choices.cid, choices.score, courses
   .cname
3 from choices, courses
4 where courses.cid=choices.cid
```

```
create view viewc as
select choices.no, choices.sid, choices.tid, choices.cid, choices.score, courses.cname
from choices, courses
where courses.cid=choices.cid
```

%

消息

命令已成功完成。

完成时间: 2021-10-11T14:44:23.7232854+08:00

(2)定义学生姓名与选课信息的视图 VIEWS;

```
1 create view views as
2 select
   choices.no, choices.sid, choices.tid, choices.cid, choices.score, student
   s.sname
3 from choices, students
4 where students.sid=choices.sid
```

```
create view views as
select choices.no, choices.sid, choices.tid, choices.cid, choices.score, students.sname
from choices, students
where students.sid=choices.sid
```

100 %

消息

命令已成功完成。

完成时间: 2021-10-11T14:46:17.4363896+08:00

(3)定义年级低于1998的学生的视图S1(SID, SNAME, GRADE);

```
1 create view s1(sid,sname,grade) as
2 select students.sid,students.sname,students.grade
3 from students
4 where students.grade>1998
```

```
create view s1(sid,sname,grade) as
select students.sid, students.sname, students.grade
from students
where students.grade>1998
```

100 %

消息

命令已成功完成。

完成时间: 2021-10-11T14:49:40.9354102+08:00

(4)查询学生为“ uxjof”的学生的选课信息;

```
1 select *
2 from views
3 where sname='uxjof'
```

```

select *
from views
where sname='uxjof'

```

100 %

结果 消息

	no	sid	tid	cid	score	sname
1	506978093	800023963	220667042	10046	94	uxjof
2	541221076	800023963	238341990	10018	84	uxjof
3	567316431	800023963	258375444	10037	98	uxjof

(5)查询选修课程“UML”的学生的编号和成绩;

```

1 select sid,score
2 from viewc
3 where cname='UML'

```

```

select sid,score
from viewc
where cname='UML'

```

100 %

结果 消息

	sid	score
1	848035070	88
2	897664264	62
3	898453203	91
4	846108663	86
5	827984677	86
6	823352185	NULL
7	882778410	69
8	884993242	74
9	806427512	96
10	848803637	85
11	839666024	92
12	844745062	96
13	818493215	88
14	815954009	62
15	829224326	80
16	851336322	NULL

查询已成功执行。 | DESKTOP-I64VLE6\SQLEXPRESS ... | DESKTOP-I64VLE6\DELL (58) | School | 00:00:00 | 5,253 行

(6)向视图S1插入记录(60000001,Lily,2001);

```

1 insert
2 into s1
3 values(60000001,'Lily',2001)

```

```
insert
into s1
values(60000001, 'Lily', 2001)
```

100 %

消息

(1 行受影响)

完成时间: 2021-10-11T15:00:14.7482735+08:00

(7)定义包括更新和插入约束的视图S1,尝试向视图插入记录(60000001,Lily,1997),删除所有年级为1999的学生记录,讨论更新和插入约束带来的影响。

```
1 create view s1(sid,sname,grade) as
2 select students.sid,students.sname,students.grade
3 from students
4 where students.grade>1998
5 with check option
```

```
create view s1(sid,sname,grade) as
select students.sid,students.sname,students.grade
from students
where students.grade>1998
with check option
```

00 %

消息

命令已成功完成。

完成时间: 2021-10-11T15:05:41.2144733+08:00

```
1 insert
2 into s1
3 values(60000001, 'Lily', 2001)
```

```
insert
into s1
values (60000001, 'Lily', 2001)
```

100 %

消息

消息 2627, 级别 14, 状态 1, 第 1 行  
违反了 PRIMARY KEY 约束“PK\_STUDENTS”。不能在对象“dbo.STUDENTS”中插入重复键。重复键值为 (60000001 )。  
语句已终止。

完成时间: 2021-10-11T15:06:56.8465184+08:00

```
1 delete from s1
2 where grade=1999
```

```
delete from s1
where grade=1999
```

100 %

消息

消息 547, 级别 16, 状态 0, 第 1 行  
DELETE 语句与 REFERENCE 约束“FK\_CHOICES\_STUDENTS”冲突。该冲突发生于数据库“School”, 表“dbo.CHICES”, column 'sid'。  
语句已终止。

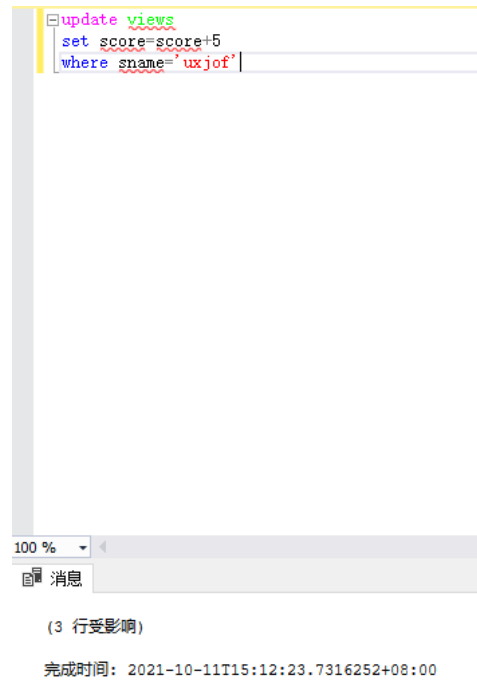
完成时间: 2021-10-11T15:09:19.1238535+08:00

## 更新和插入约束带来的影响:

对视图指定WITH CHECK OPTION约束后, 进行更新和插入操作都必须满足视图定义时指明的条件,  $grade > 1998$ 。因为插入的  $1997 < 1998$ , 所以无法插入。虽然删除的元组  $grade$  满足  $1999 > 1998$ , 但基表 `students` 和 `choices` 存在完整性约束, 将  $grade = 1999$  的元组删除违反了完整性约束, 所以错误。

(8)在视图 VIEWS中将姓名为“ uxjof”的学生的选课成绩都加上5分。

```
1 update views
2 set score=score+5
3 where sname='uxjof'
```



(9)取消以上建立的所有视图。

```
1 drop view viewc
2 drop view views
3 drop view s1
```

