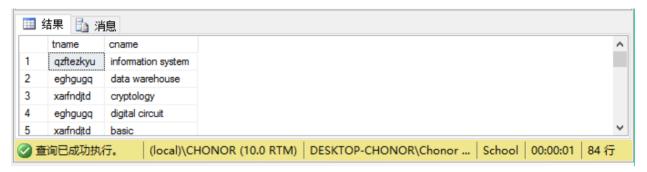1.

```
CREATE TABLE CARD (
cid CHAR(10) not null UNIQUE,
sid CHAR(10) not null,
money decimal(10,2),
PRIMARY KEY(cid),
FOREIGN KEY(sid) REFERENCES STUDENTS ON DELETE CASCADE
)
SELECT * from card
```

cid	sid	money

查询已成功执行。　　(local)\CHONOR (10.0 RTM)　DESKTOP-CHONOR\Chonor ...　School　00:00:00　0 行

2.

```
ALTER TABLE CARD ADD bank CHAR(20)

SELECT * from card
```

cid	sid	money	bank

查询已成功执行。　　(local)\CHONOR (10.0 RTM)　DESKTOP-CHONOR\Chonor ...　School　00:00:00　0 行

3.

```
ALTER TABLE CARD DROP column bank
SELECT * from card
```

cid	sid	money

查询已成功执行。　　(local)\CHONOR (10.0 RTM)　DESKTOP-CHONOR\Chonor ...　School　00:00:00　0 行

输出

4.

```
select TEACHERS.tname,COURSES.cname
from TEACHERS,COURSES,CHOICES
WHERE TEACHERS.tid=CHOICES.tid AND CHOICES.cid=COURSES.cid
AND TEACHERS.salary>=ALL(
SELECT salary
FROM TEACHERS
WHERE salary IS NOT NULL
)
```

	tname	cname
1	qzftezkyu	information system
2	eghgugq	data warehouse
3	xarfndjtd	cryptology
4	eghgugq	digital circuit
5	xarfndjtd	basic

✅ 查询已成功执行。 | (local)\CHONOR (10.0 RTM) | DESKTOP-CHONOR\Chonor ... | School | 00:00:01 | 84 行

5.

```
select cname
from COURSES
where hour=(select hour from COURSES where cname='uml') OR
hour=(select hour from COURSES where cname='c++')
```

	cname
1	c++
2	uml
3	data structure
4	computer network
5	asp
6	struts
7	c#

✅ 查询已成功执行。 | (local)\CHONOR (10.0 RTM) | DESKTOP-CHONOR\Chonor ... | School | 00:00:00 | 7 行

6.

```
SELECT sid
FROM CHOICES
WHERE cid IN(
SELECT cid FROM COURSES WHERE COURSES.cname='c++'
)
EXCEPT
SELECT sid
FROM CHOICES
WHERE cid IN(
SELECT cid FROM COURSES WHERE COURSES.cname='database'
)
```
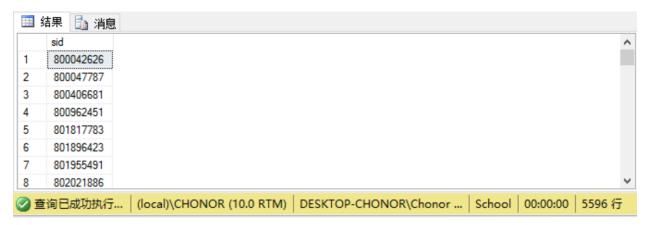
7.

```sql
SELECT DISTINCT STUDENTS.sid
FROM CHOICES,STUDENTS,COURSES
WHERE CHOICES.cid=COURSES.cid
AND COURSES.cname='database'
AND CHOICES.sid=STUDENTS.sid
AND CHOICES.score>(
SELECT CHOICES.score
FROM CHOICES,STUDENTS,COURSES
WHERE STUDENTS.sname='ruvldjlm'
AND CHOICES.sid=STUDENTS.sid
AND COURSES.cname='database'
AND CHOICES.cid=COURSES.cid
)
```


8.

```sql
SELECT MAX(CHOICES.score) as maxs,AVG(CHOICES.score) as avgs
From CHOICES,COURSES
WHERE CHOICES.cid = COURSES.cid AND COURSES.cname='database'
```

9.

```sql
SELECT STUDENTS.sname
FROM CHOICES,STUDENTS,COURSES
WHERE CHOICES.sid=STUDENTS.sid
AND CHOICES.cid=COURSES.cid
AND COURSES.cname='database'
AND CHOICES.score>=ALL(
SELECT CHOICES.score
FROM CHOICES,COURSES
WHERE COURSES.cname='database'
AND CHOICES.cid=COURSES.cid
AND CHOICES.score IS NOT NULL
)
```
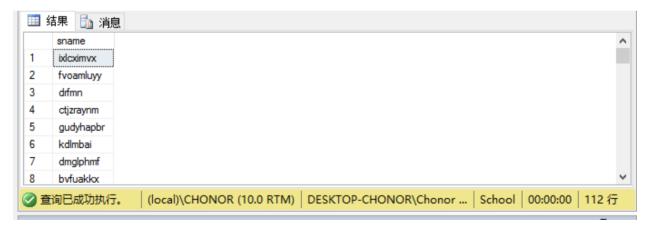
10.

```sql
SELECT sname
FROM STUDENTS
WHERE sname NOT IN(
SELECT STUDENTS.sname
FROM COURSES,STUDENTS,CHOICES
WHERE COURSES.cname='database'
AND CHOICES.cid=COURSES.cid
AND STUDENTS.sid=CHOICES.sid
)
```

	sname
1	waqcj
2	uxqqbkjn
3	zapyv
4	cxjnq
5	mglhxm
6	yahvv
7	zvjteiv
8	vfkmnuw

✅ 查询已成功执... | (local)\CHONOR (10.0 RTM) | DESKTOP-CHONOR\Chonor ... | School | 00:00:00 | 94242 行

11.

```
SELECT STUDENTS.sname
FROM CHOICES,STUDENTS
WHERE CHOICES.sid = STUDENTS.sid
GROUP BY CHOICES.sid ,STUDENTS.sname
HAVING COUNT(CHOICES.sid)>2
ORDER BY CHOICES.sid
```

🔳 结果 | 📇 消息

	sname
1	gfxrgs
2	vnbqzsvv
3	fiiluommh
4	ogvmu
5	uxqqbkjn
6	rcxaihj
7	zapyv
8	zyuoh

✅ 查询已成功执... | (local)\CHONOR (10.0 RTM) | DESKTOP-CHONOR\Chonor ... | School | 00:00:00 | 59845 行

12.
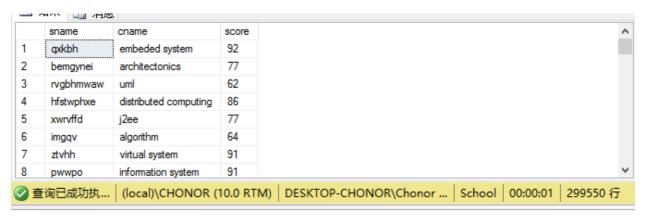
```
CREATE VIEW VIEW_SC(sname,cname,score)
AS SELECT
STUDENTS.sname,COURSES.cname,CHOICES.score
FROM CHOICES,COURSES,STUDENTS
WHERE CHOICES.cid = COURSES.cid AND CHOICES.sid= STUDENTS.sid

SELECT * FROM VIEW_SC
```

	sname	cname	score
1	qxkbh	embeded system	92
2	bemgynei	architectonics	77
3	rvgbhmwaw	uml	62
4	hfstwphxe	distributed computing	86
5	xwrvffd	j2ee	77
6	imgqv	algorithm	64
7	ztvhh	virtual system	91
8	pwwpo	information system	91

✅ 查询已成功执... (local)\CHONOR (10.0 RTM) DESKTOP-CHONOR\Chonor ... School 00:00:01 299550 行

13.

```sql
SELECT sname
FROM VIEW_SC
WHERE score>90
```

结果 消息

	sname
1	zapyv
2	tkbzqduq
3	axgrcq
4	axgrcq
5	frroly
6	pgmrkdhh
7	ptqno
8	tongd

✅ 查询已成功执... (local)\CHONOR (10.0 RTM) DESKTOP-CHONOR\Chonor ... School 00:00:00 53970 行

14.

```sql
insert into VIEW_SC values ('test','test','99')
```

消息

消息 4405，级别 16，状态 1，第 1 行
视图或函数 'VIEW_SC' 不可更新，因为修改会影响多个基表。

⚠ 查询已完成，但有... (local)\CHONOR (10.0 RTM) DESKTOP-CHONOR\Chonor ... School 00:00:00 0 行
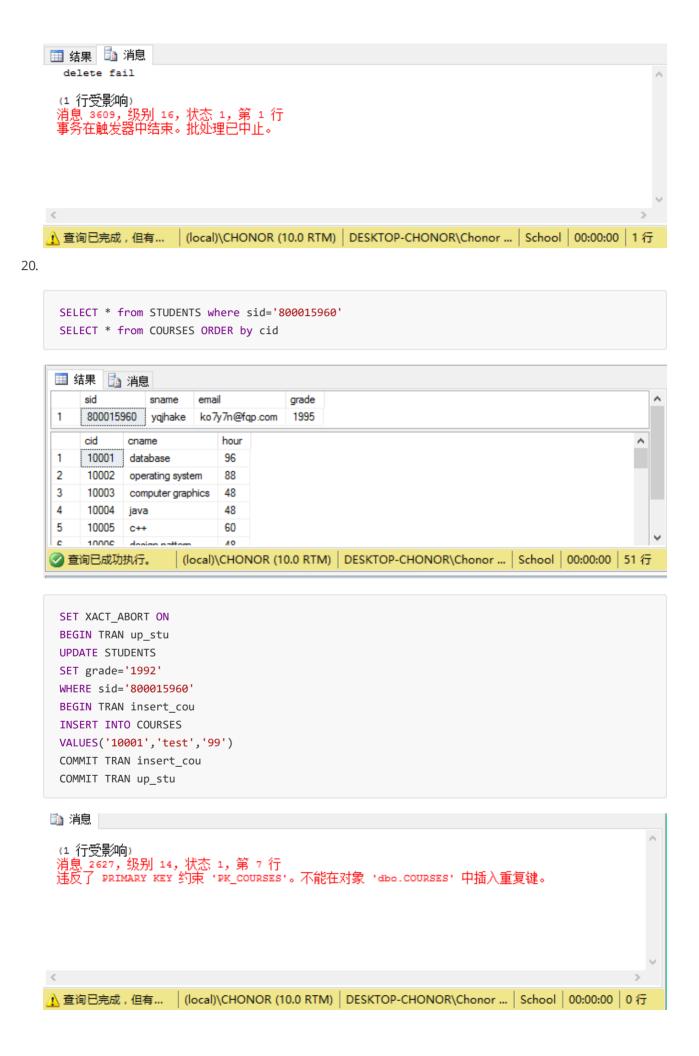
此时插入全新的数据会影响到多个表比如 STUDENTS,COURSES,CHOICES，因为他们的主键都不能为null，而我们没有插入主键，所以不能插入。
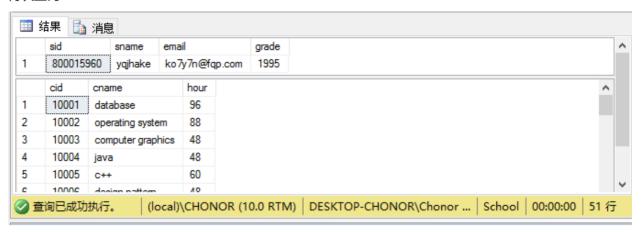
15.

```
GO
CREATE RULE R1 AS @money >0
GO
EXEC sp_bindrule R1,'CARD.[money]'
```

消息

已将规则绑定到表的列。

✓ 查询已成功执行。 | (local)\CHONOR (10.0 RTM) | DESKTOP-CHONOR\Chonor ... | School | 00:00:00 | 0 行

16.

```
insert into CARD values ('1000','807171972','-0.1')
```

消息

消息 513，级别 16，状态 0，第 1 行
列的插入或更新与先前的 CREATE RULE 语句所指定的规则发生冲突。该语句已终止。冲突发生于数据库
语句已终止。

⚠ 查询已完成，但有... | (local)\CHONOR (10.0 RTM) | DESKTOP-CHONOR\Chonor ... | School | 00:00:00 | 0 行

17.

```
EXEC sp_unbindrule 'CARD.[money]'
```

消息

已解除了表列与规则之间的绑定。

✓ 查询已成功执行。 | (local)\CHONOR (10.0 RTM) | DESKTOP-CHONOR\Chonor ... | School | 00:00:00 | 0 行

```
insert into CARD values ('1000','807171972','-0.1')
Select * from CARD
```

結果 | 消息

	cid	sid	money
1	1000	807171972	-0.10

查询已成功执行。 | (local)\CHONOR (10.0 RTM) | DESKTOP-CHONOR\Chonor ... | School | 00:00:00 | 1 行

18.

```
go
create trigger T1 on STUDENTS
for delete
as
if (select sid from deleted)='800015960'
begin
print ' delete fail '
Rollback transaction
end
```

消息

命令已成功完成。

查询已成功执行。 | (local)\CHONOR (10.0 RTM) | DESKTOP-CHONOR\Chonor ... | School | 00:00:00 | 0 行

19.

```
delete from choices where sid='800015960'
delete from STUDENTS where sid='800015960'
```

```
delete fail
```

（1 行受影响）
消息 3609，级别 16，状态 1，第 1 行
事务在触发器中结束。批处理已中止。

20.

```
SELECT * from STUDENTS where sid='800015960'
SELECT * from COURSES ORDER by cid
```

	sid	sname	email	grade
1	800015960	yqjhake	ko7y7n@fqp.com	1995

	cid	cname	hour
1	10001	database	96
2	10002	operating system	88
3	10003	computer graphics	48
4	10004	java	48
5	10005	c++	60
6	10006	design pattern	48

```
SET XACT_ABORT ON
BEGIN TRAN up_stu
UPDATE STUDENTS
SET grade='1992'
WHERE sid='800015960'
BEGIN TRAN insert_cou
INSERT INTO COURSES
VALUES('10001','test','99')
COMMIT TRAN insert_cou
COMMIT TRAN up_stu
```

（1 行受影响）
消息 2627，级别 14，状态 1，第 7 行
违反了 PRIMARY KEY 约束 'PK_COURSES'。不能在对象 'dbo.COURSES' 中插入重复键。

再次查询

此时我们发现没有插入回滚了。