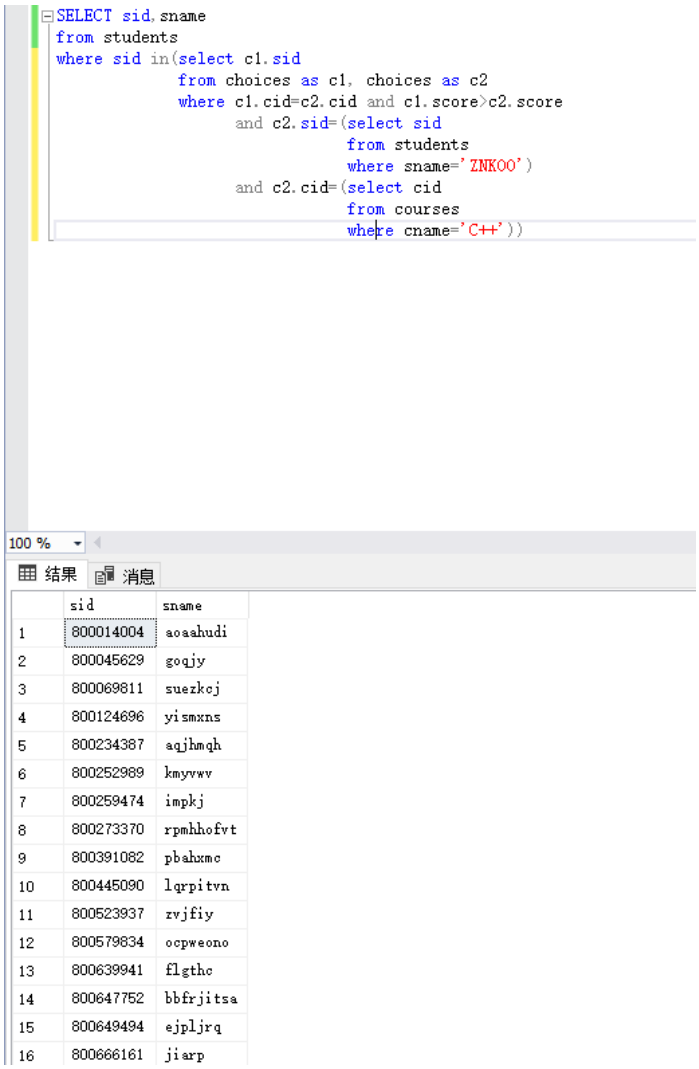
第四次实验

(1)查询选修C++课程的成绩比姓名为 ZNKOO的学生高的所有学生的编号和姓名;

```
SELECT sid,sname
from students
where sid in(select c1.sid
             from choices as c1, choices as c2
             where c1.cid=c2.cid and c1.score>c2.score
                   and c2.sid=(select sid
                               from students
                               where sname='ZNKOO')
                   and c2.cid=(select cid
                               from courses
                               where cname='C++'))
```



```
SELECT sid,sname
from students
where sid in(select c1.sid
             from choices as c1, choices as c2
             where c1.cid=c2.cid and c1.score>c2.score
                   and c2.sid=(select sid
                               from students
                               where sname='ZNKOO')
                   and c2.cid=(select cid
                               from courses
                               where cname='C++'))
```

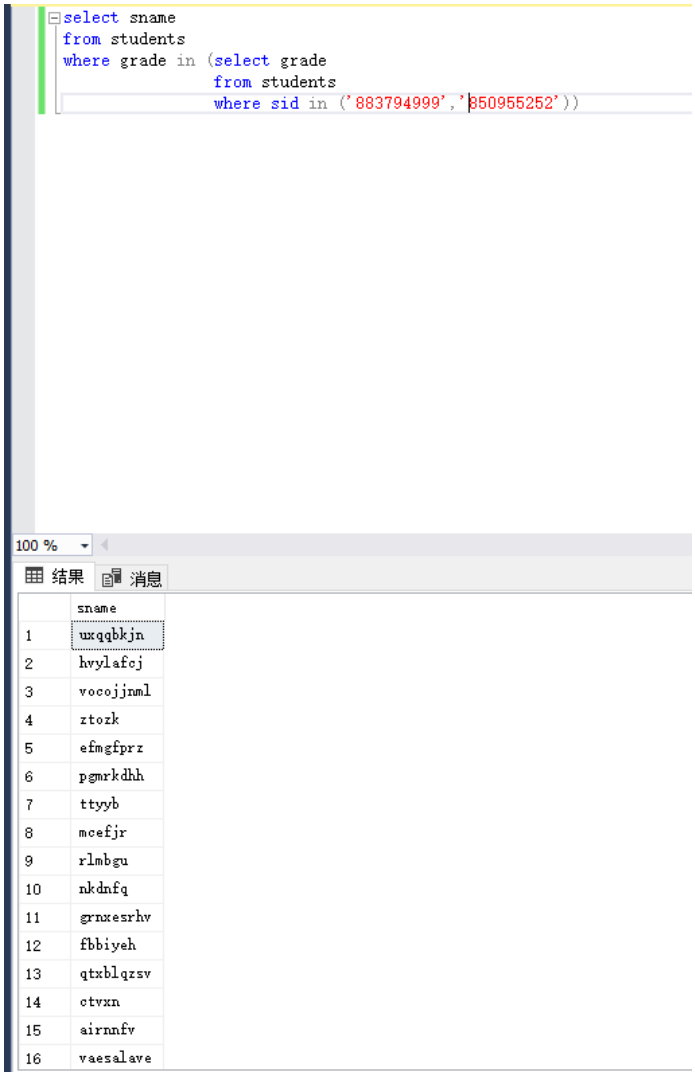
100 %

结果 消息

	sid	sname
1	800014004	aoaahudi
2	800045629	goqjy
3	800069811	suezkcj
4	800124696	yismxns
5	800234387	aqjhmqh
6	800252989	kmyvwv
7	800259474	impkj
8	800273370	rpmhhofvt
9	800391082	pbahxmc
10	800445090	lqrpitvn
11	800523937	zvjfiy
12	800579834	ocpweono
13	800639941	flgthc
14	800647752	bbfrjitsa
15	800649494	ejpljrq
16	800666161	jiarp

(2)找出和学生883794999或学生850955252的年级一样的学生的姓名;

```
select sname
from students
where grade in (select grade
                from students
                where sid in ('883794999','850955252'))
```



(3)查询没有选修Java的学生名称;

```
select sname
from students
where sid not in (select sid
                  from choices
                  where cid = (select cid
                               from courses
                               where cname = 'JAVA'))
```

```
select sname
from students
where sid not in (select sid
                  from choices
                  where cid = (select cid
                               from courses
                               where cname = 'JAVA'))
```

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结果 消息

	sname
1	vnbqzsvv
2	waqcj
3	fiiluommh
4	ogvmu
5	uxqqbkjn
6	ehlycg
7	rcxaihj
8	zapyv
9	zyuoh
10	uwphrw
11	aoaahudi
12	fnvxgrisg
13	mztqyvc
14	egwwnf
15	yqjhake
16	hvylafcj

(4)找出课时最少的课程的详细信息;

```
select *
from courses
where hour<=all(select hour
                from courses)
```

```
select *
from courses
where hour<=all(select hour
                from courses)
```

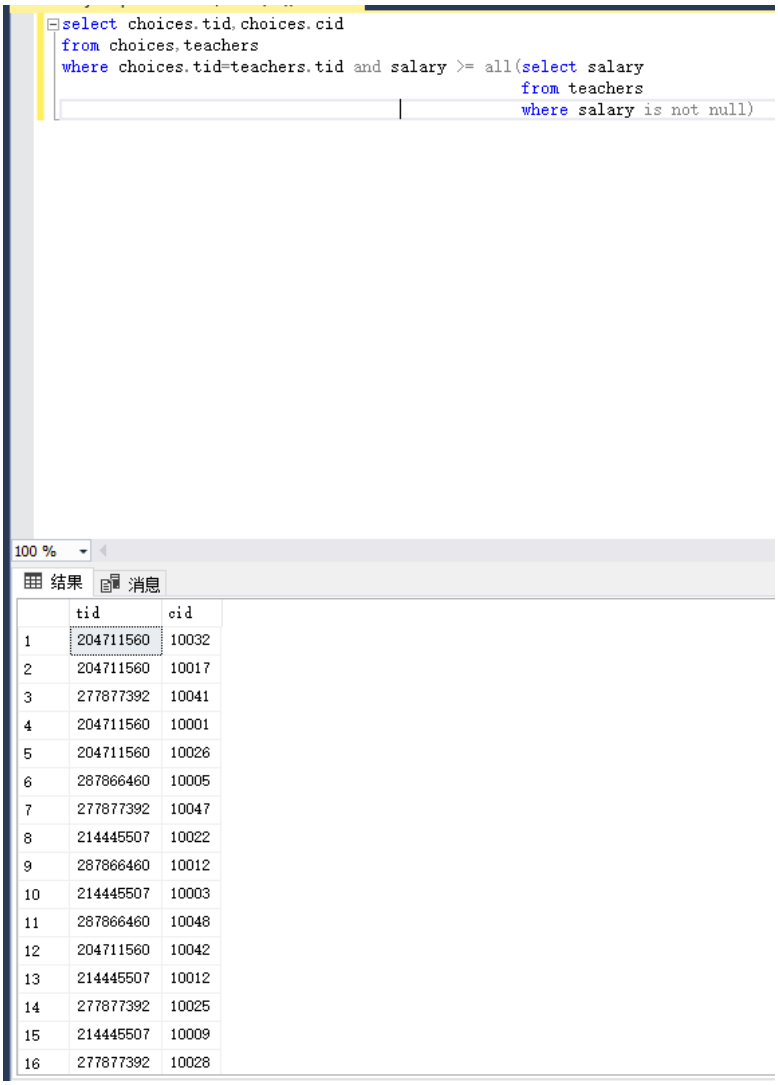
00 %

结果 消息

	cid	cname	hour
1	10024	use case	18
2	10034	windows	18

(5)查询工资最高的教师的编号和开设的课程号;

```
select choices.tid,choices.cid
from choices,teachers
where choices.tid=teachers.tid and salary >= all(select salary
                                                 from teachers
                                                 where salary is not
null)
```



	tid	cid
1	204711560	10032
2	204711560	10017
3	277877392	10041
4	204711560	10001
5	204711560	10026
6	287866460	10005
7	277877392	10047
8	214445507	10022
9	287866460	10012
10	214445507	10003
11	287866460	10048
12	204711560	10042
13	214445507	10012
14	277877392	10025
15	214445507	10009
16	277877392	10028

(6)找出选修课程ERP成绩最高的学生编号;

```
select sid
from choices
where score=(select max(score)
             from choices
             where cid=(select cid
                        from courses
                        where cname='ERP'))
     and cid=(select cid
              from courses
              where cname='ERP')
```

```
select sid
from choices
where score=(select max(score)
             from choices
             where cid=(select cid
                        from courses
                        where cname='ERP'))
      and cid=(select cid
               from courses
               where cname='ERP')
```

结果 消息

	sid
	831163985
	862976650
	840891316
	844440501
	883884237
	862654622
	839342232
	865296034
	843643589
0	827092658
1	866949513
2	896273784
3	891039970
4	871790824
5	871923399
6	850185316

(7)查询没有学生选修的课程名称;

```
select cname
from courses
where cid not in (select cid
                  from choices)
```

```
select cname
from courses
where cid not in (select cid
                  from choices)
```

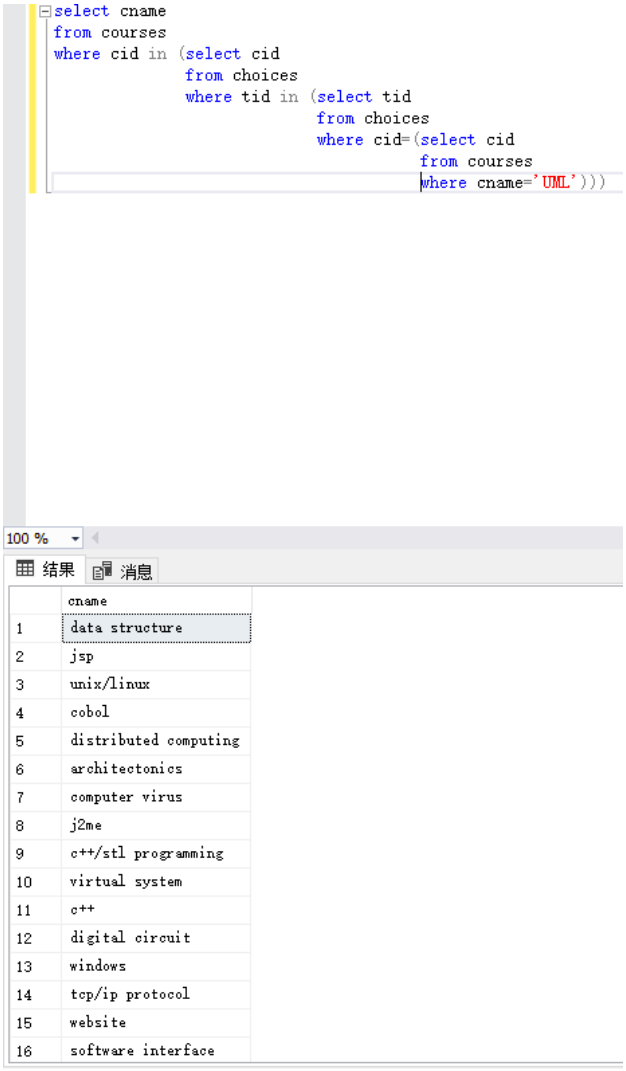
100 %

结果 消息

cname

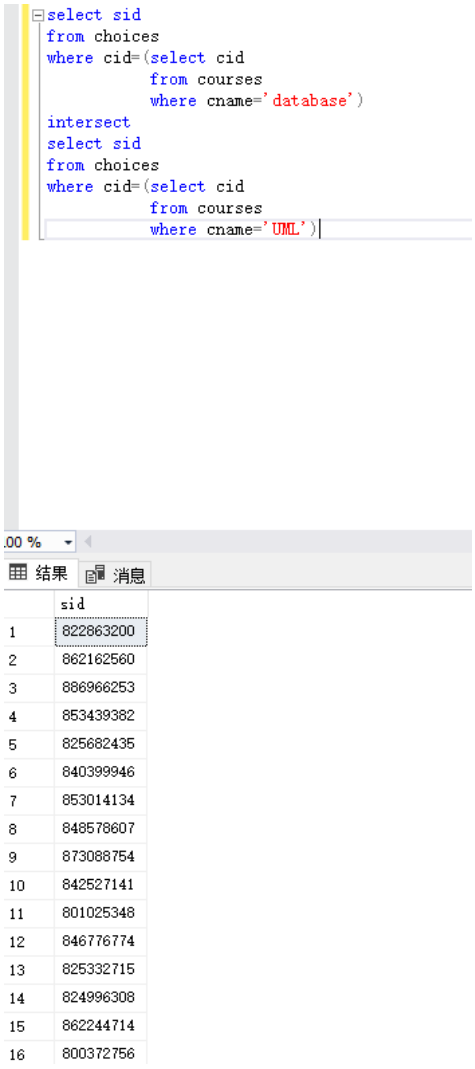
(8)查询讲授课程UML的教师所讲授的所有课程名称;

```
select cname
from courses
where cid in (select cid
              from choices
              where tid in (select tid
                            from choices
                            where cid=(select cid
                                       from courses
                                       where cname='UML')))
```



(9)使用集合交运算， 查询既选修了database又选修了UML课程的学生编号;

```
select sid
from choices
where cid=(select cid
           from courses
           where cname='database')
intersect
select sid
from choices
where cid=(select cid
           from courses
           where cname='UML')
```



(10)使用集合减运算， 查询选修了database却没有选修UML课程的学生编号;

```sql
select sid
from choices
where cid=(select cid
           from courses
           where cname='database')
except
select sid
from choices
where cid=(select cid
           from courses
           where cname='UML')
```