

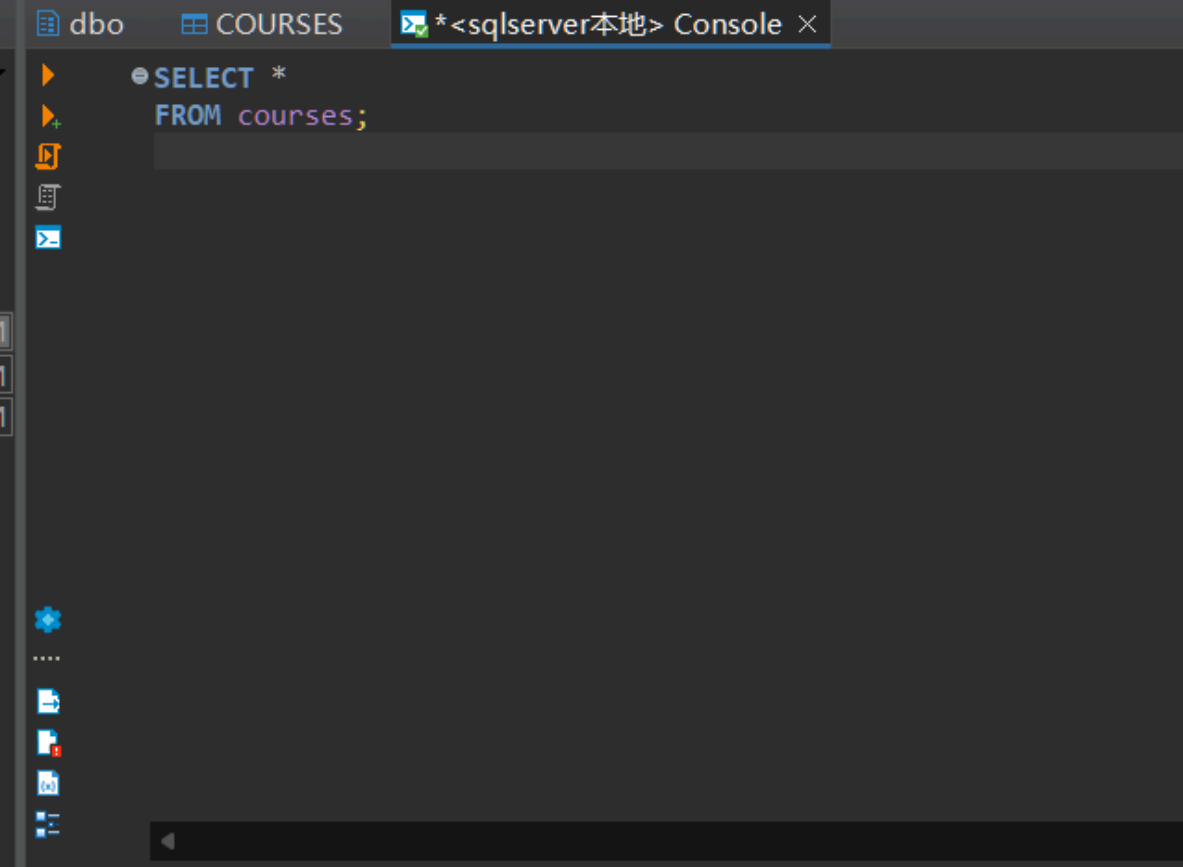
姓名：胡瑞康

学号：22336087

- students (sid, sname , email , grade)
- teachers (tid, tname , email , salary)
- courses (cid, cname , hour)
- choices (no, sid , tid , cid , score)

(1)查询全部课程的详细记录;

```
SELECT *  
FROM courses;
```

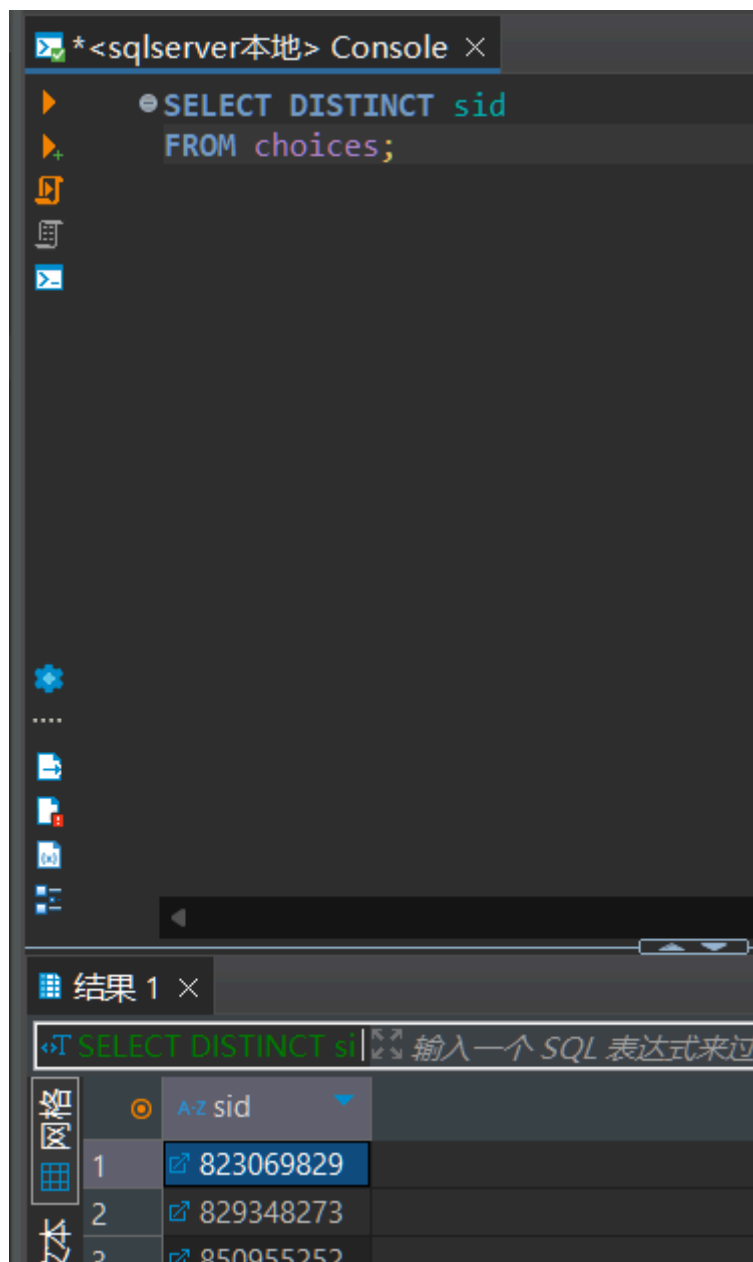


The screenshot shows the SQL Server Enterprise Manager interface. The top pane displays the query: `SELECT * FROM courses;`. The bottom pane shows the results of the query in a table format. The table has three columns: `cid`, `cname`, and `hour`. The results are as follows:

	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

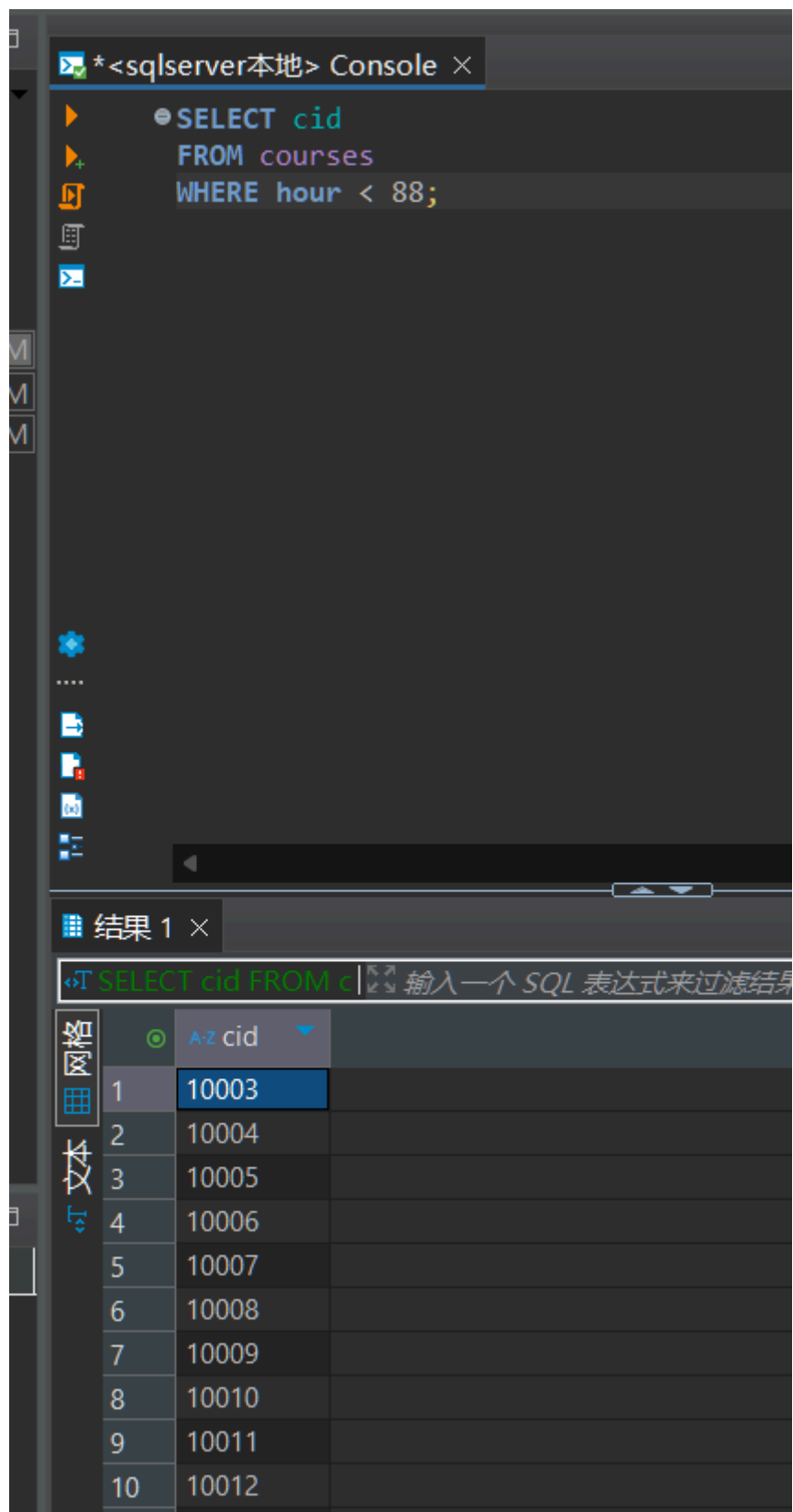
(2)查询所有有选修课的学生们的编号;

```
SELECT DISTINCT sid  
FROM choices;
```



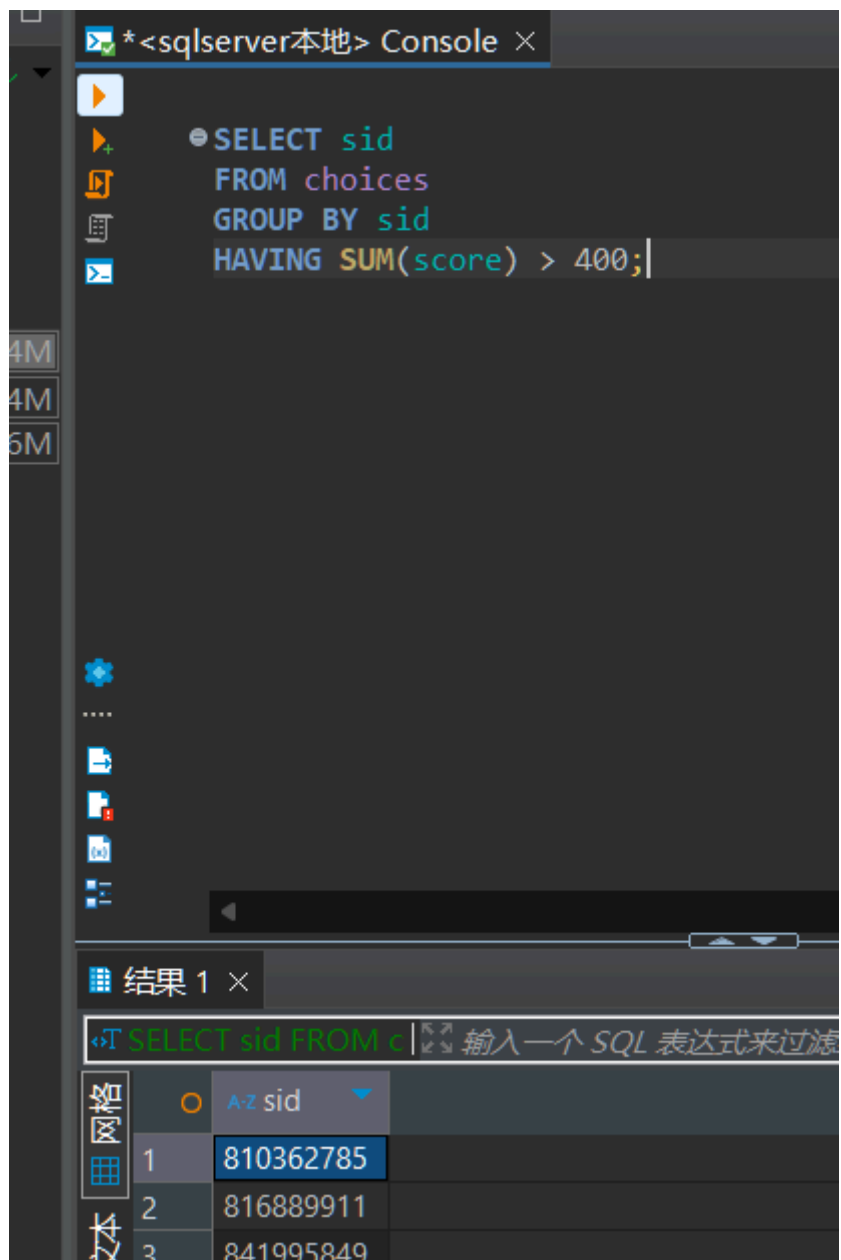
(3)查询课时<88(小时)的课程编号;

```
SELECT cid
FROM courses
WHERE hour < 88;
```



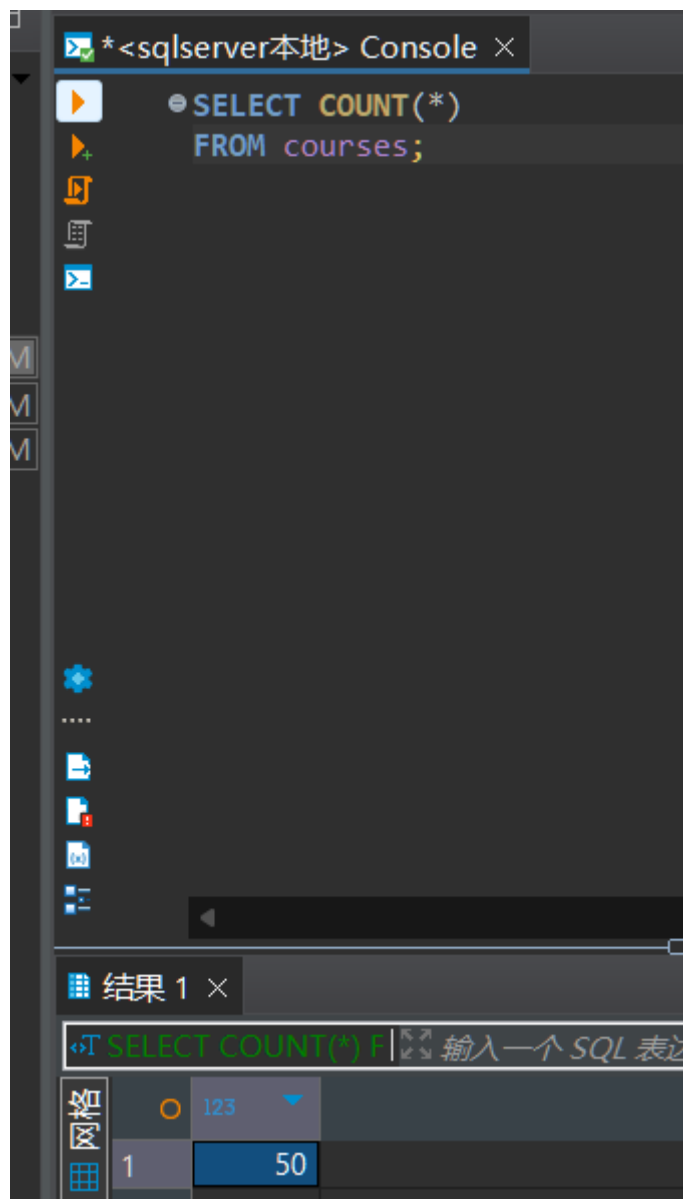
(4)请找出总分超过400分的学生;

```
SELECT sid
FROM choices
GROUP BY sid
HAVING SUM(score) > 400;
```



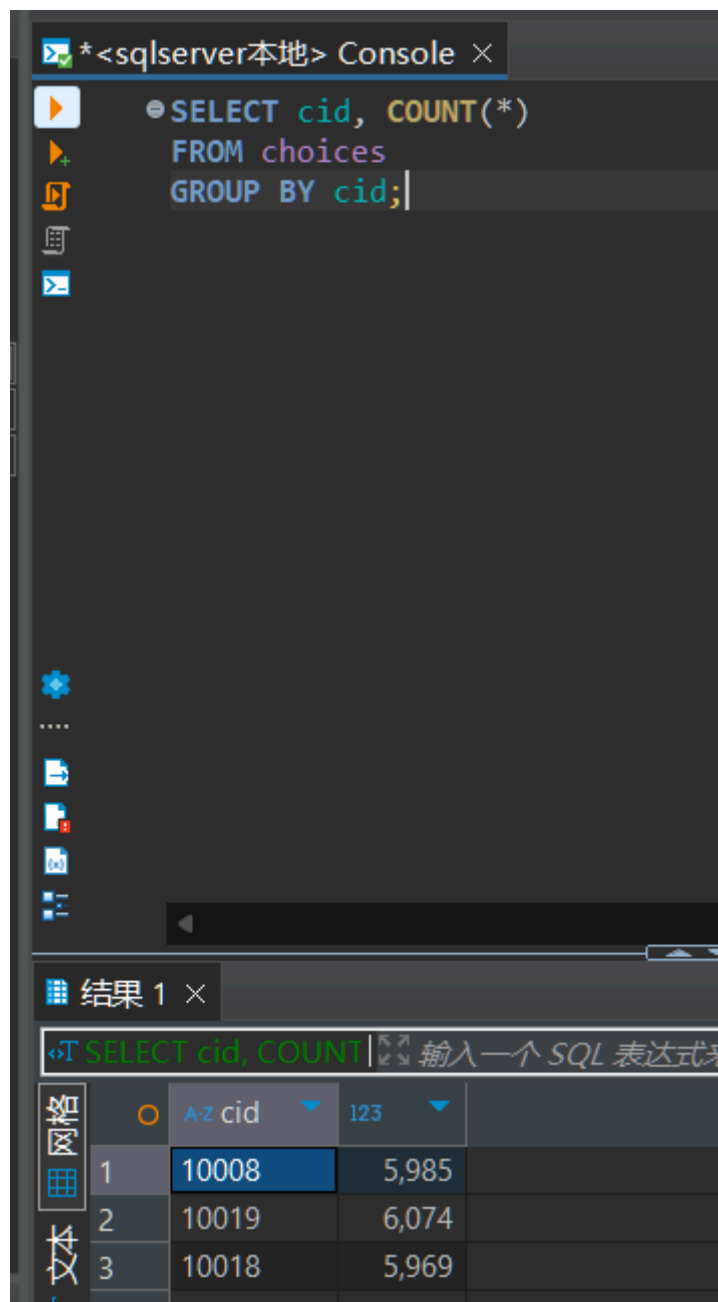
(5)查询课程的总数;

```
SELECT COUNT(*)
FROM courses;
```



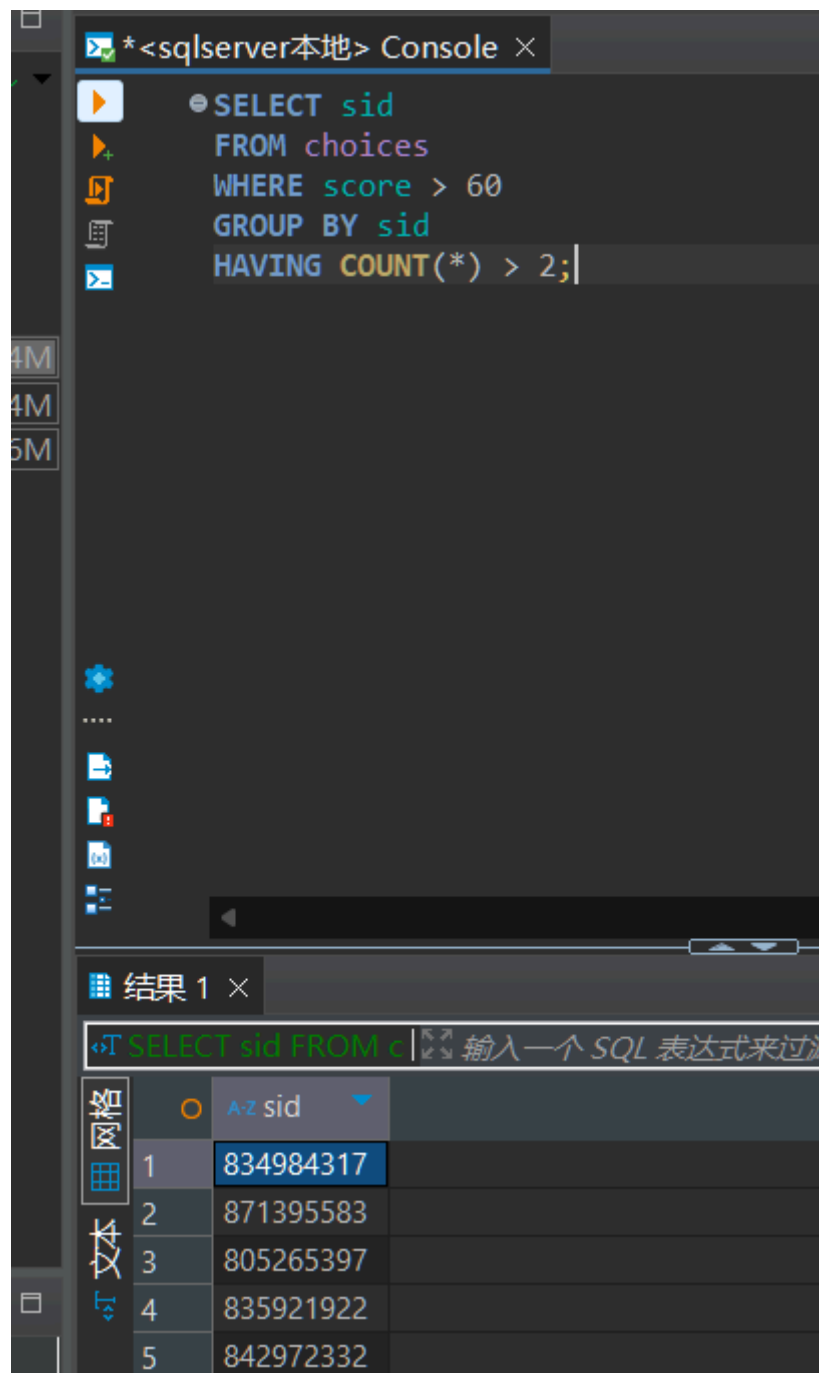
(6)查询所有课程和选修该课程的学生总数;

```
SELECT cid, COUNT(*)  
FROM choices  
GROUP BY cid;
```



(7)查询选修成绩超过60的课程超过两门的学生编号;

```
SELECT sid
FROM choices
WHERE score > 60
GROUP BY sid
HAVING COUNT(*) > 2;
```



(8)统计各个学生的选修课程数目和平均成绩;

```
SELECT sid, COUNT(*), AVG(score)
FROM choices
GROUP BY sid;
```

The screenshot shows a SQL IDE interface. The top panel, titled '*<sqlserver本地> Console', contains the following SQL query:

```
SELECT sid, COUNT(*), AVG(score)
FROM choices
GROUP BY sid;
```

The bottom panel, titled '结果 1', displays the results of the query in a table. The table has four columns: 'sid', 'COUNT(*)', and 'AVG(score)'. The first column is sorted in ascending order. The results are as follows:

	sid	COUNT(*)	AVG(score)
1	875058993	3	78
2	872331801	4	87
3	868752380	5	80
4	802563629	2	66
5	867124477	2	92
6	820928013	4	74
7	830171441	2	80
8	816522769	2	74

(9)查询选修Java的所有学生的编号及姓名;

```
SELECT students.sid, students.sname
FROM students, choices, courses
WHERE students.sid = choices.sid AND choices.cid = courses.cid AND courses.cname
= 'Java';
```


SQL Server Enterprise Edition (64-bit) Console

```

SELECT students.sid, students.sname
FROM students, choices, courses
WHERE students.sid = choices.sid AND choices.cid = courses.cid AND courses.cname = 'Java';

```

结果 1

	A-z sid	A-z sname
1	833961570	bzbogqep
2	856259316	qnsmnk
3	840205068	vtzpxh
4	870755799	gjikyychh
5	811353704	wcgatkwn
6	881617726	ikmsab
7	806836750	rrveair

(10)查询姓名为ssst的学生所选的课程的编号和成绩;

```

SELECT choices.cid, choices.score
FROM students, choices
WHERE students.sid = choices.sid AND students.sname = 'ssst';

```

SQL Server Enterprise Edition (64-bit) Console

```

SELECT choices.cid, choices.score
FROM students, choices
WHERE students.sid = choices.sid AND students.sname = 'ssst';

```

结果 1

	A-z cid	score
1	10004	76
2	10037	84
3	10037	54
4	10030	53
5	10019	79

(11)查询其他课时比课程C++多的课程的名称

```

SELECT cname
FROM courses
WHERE hour > (SELECT hour
               FROM courses
               WHERE cname = 'C++');

```

*<sqlserver本地> Console × COURSES STUDENTS

```
SELECT cname
FROM courses
WHERE hour > (SELECT hour
               FROM courses
               WHERE cname = 'C++');
```

结果 1 ×

SELECT cname FROM courses WHERE hour > (SELECT h

	A-Z cname	
1	database	
2	operating system	
3	tcp/ip protocol	
4	algorithm	
5	compiling principle	