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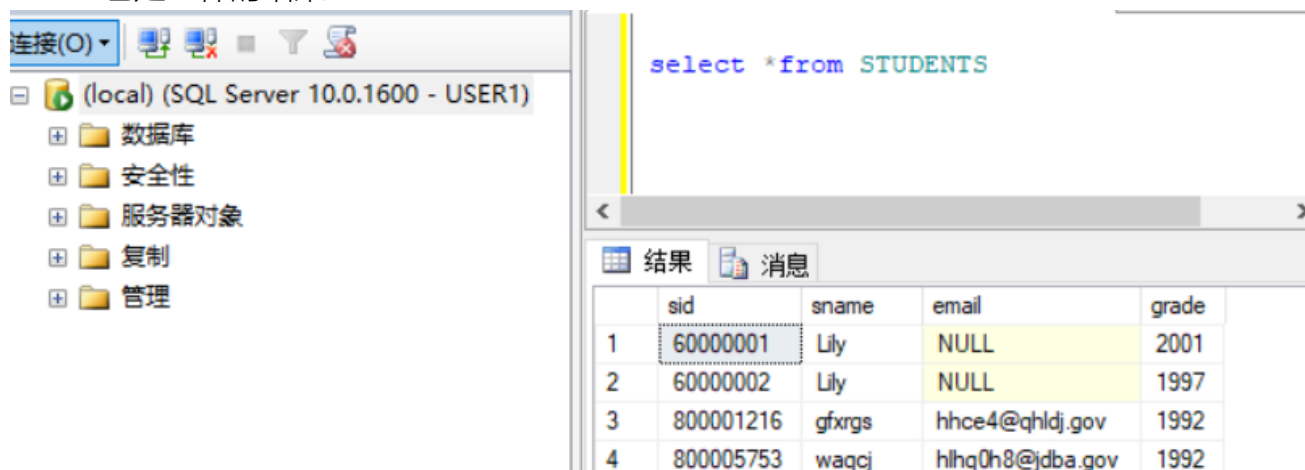
## 1.

授予所有用户对表 STUDENTS的查询权限

```
GRANT SELECT
ON STUDENTS
TO PUBLIC
WITH GRANT OPTION
```

实验结果：

执行后切换至用户USER1进行测试，此时USER1可以对STUDENTS表进行查询，USER2和USER3也是一样的结果：



The screenshot shows the SQL Server Enterprise Manager interface. On the left, the 'Server Enterprise' tree is expanded, showing the 'Database' folder. The main window displays the query 'select \* from STUDENTS' in the query editor. Below the query editor, the 'Results' tab is active, showing the following data:

	sid	sname	email	grade
1	60000001	Lily	NULL	2001
2	60000002	Lily	NULL	1997
3	800001216	gfxrgs	hhce4@qhldj.gov	1992
4	800005753	waqcj	hlhq0h8@jdba.gov	1992

## 2.

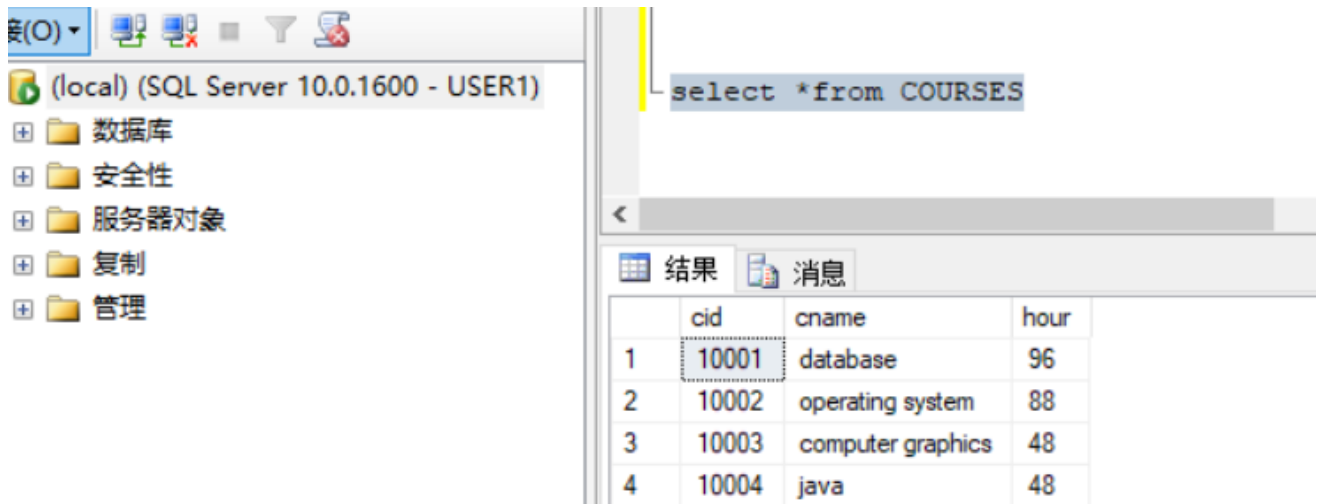
授予所有用户对表 COURSES的查询和更新权限

```
GRANT SELECT,UPDATE
ON COURSES
TO PUBLIC
```

实验结果：

同样，管理员执行后切换至用户USER1进行测试，此时USER1可以对STUDENTS表进行查询，

USER2和USER3也是一样的结果：



The screenshot shows the SQL Server Enterprise Manager interface. On the left, the 'Server Enterprise' tree is expanded to '数据库' (Databases). The right pane shows a query window with the text 'select \* from COURSES'. Below the query window, the '结果' (Results) tab is active, displaying a table with 4 rows and 4 columns: 'cid', 'cname', and 'hour'. The first row is highlighted.

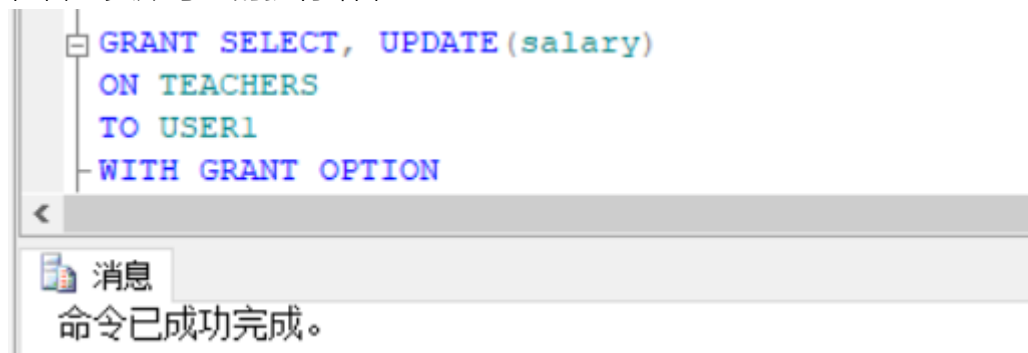
	cid	cname	hour
1	10001	database	96
2	10002	operating system	88
3	10003	computer graphics	48
4	10004	java	48

### 3.

授予USER1对表 TEACHERS的查询,更新工资的权限,且允许 USER1可以传播这些权限

```
GRANT SELECT,UPDATE(salary)
ON TEACHERS
TO USER1
WITH GRANT OPTION
```

在管理员账号上的执行结果：

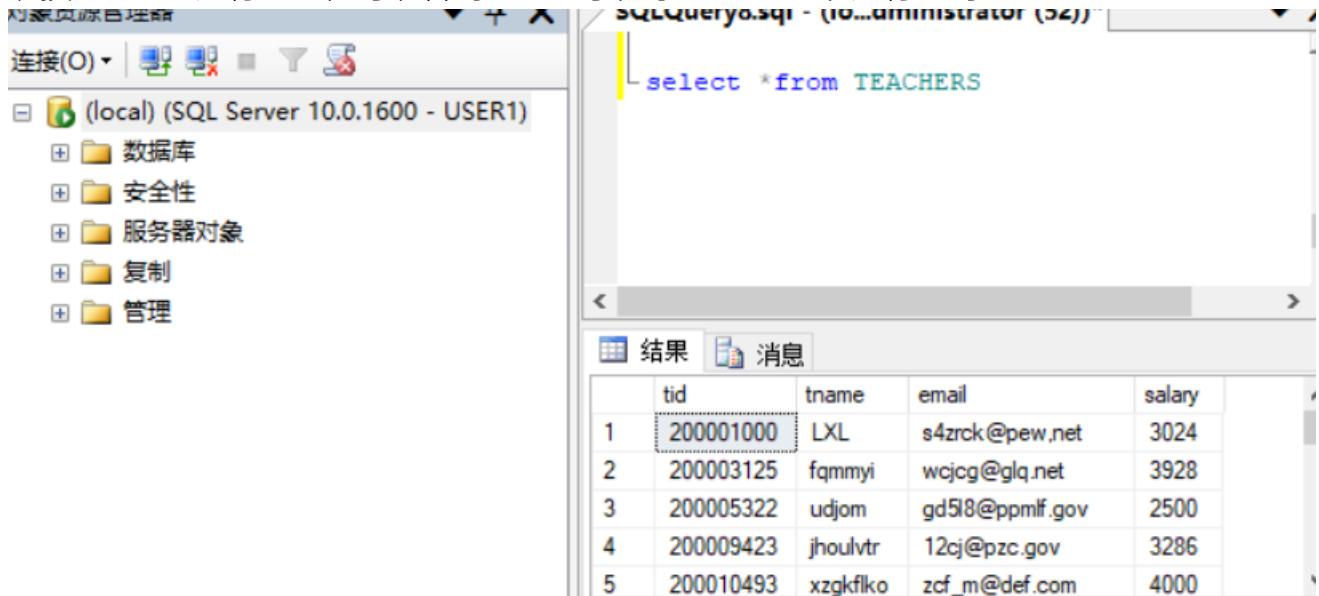


The screenshot shows the SQL Server Enterprise Manager interface. The query window contains the following SQL statement:

```
GRANT SELECT, UPDATE(salary)
ON TEACHERS
TO USER1
WITH GRANT OPTION
```

Below the query window, the '消息' (Messages) tab is active, displaying the message '命令已成功完成。' (Command completed successfully.)

切换至USER1进行验证，可以看到USER1可以对TEACHERS表进行查询：



The screenshot shows the SQL Server Enterprise Manager interface. On the left, the 'Object Explorer' pane displays the server structure for '(local) (SQL Server 10.0.1600 - USER1)', including folders for '数据库' (Databases), '安全性' (Security), '服务器对象' (Server Objects), '复制' (Replication), and '管理' (Management). The main window shows a query window titled 'SQLQuery0.sql - (10...administrator (32))' containing the SQL statement: `select * from TEACHERS`. Below the query window, the 'Results' pane displays the query output as a table with 5 rows and 5 columns: tid, tname, email, salary, and an unnamed column. The data is as follows:

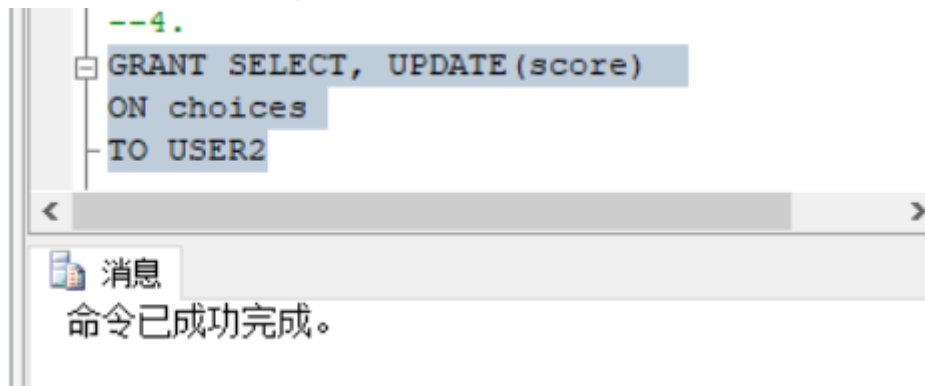
	tid	tname	email	salary	
1	200001000	LXL	s4zrck@pew.net	3024	
2	200003125	fqmmyi	wcjcg@glq.net	3928	
3	200005322	udjom	gd5l8@ppmlf.gov	2500	
4	200009423	jhoulvtr	12cj@pzc.gov	3286	
5	200010493	xzgfiko	zcf_m@def.com	4000	

#### 4.

授予USER2对表 CHOICES的查询,更新成绩的权限

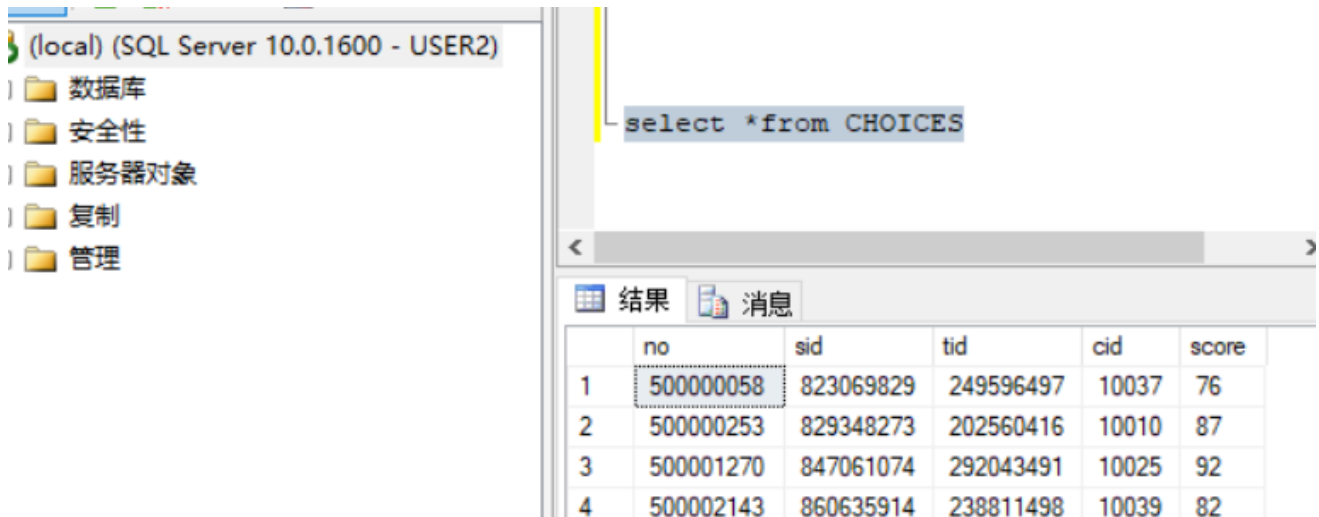
```
GRANT SELECT,UPDATE(score)
ON choices
TO USER2
```

在管理员账号上的执行结果：



The screenshot shows the SQL Server Enterprise Manager interface. The main window displays the SQL statement: `GRANT SELECT, UPDATE(score) ON choices TO USER2`. Below the query window, the 'Messages' pane shows the message: '命令已成功完成。' (Command completed successfully.).

切换至USER2进行验证，可以看到USER2可以对CHOICES表进行查询：



The screenshot shows the SQL Server Enterprise Manager interface. On the left, the 'Server Objects' tree is expanded to 'Management' > 'Security' > 'Users'. The main pane shows a query window with the text 'select \*from CHOICES'. Below the query, the 'Results' tab is active, displaying a table with 6 columns: 'no', 'sid', 'tid', 'cid', and 'score'. The table contains 4 rows of data.

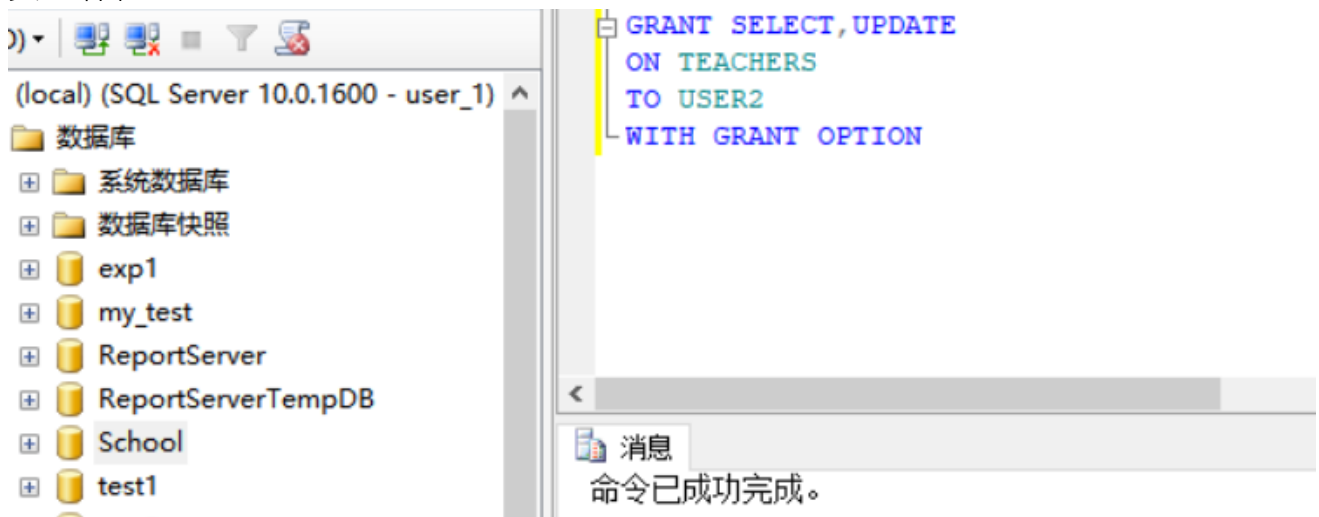
	no	sid	tid	cid	score
1	500000058	823069829	249596497	10037	76
2	500000253	829348273	202560416	10010	87
3	500001270	847061074	292043491	10025	92
4	500002143	860635914	238811498	10039	82

## 5.

由USER1授予USER2对表 TEACHERS的查询权限和传播的此项权限的权利

```
--user 1  
GRANT SELECT,UPDATE  
ON TEACHERS  
TO USER2  
WITH GRANT OPTION
```

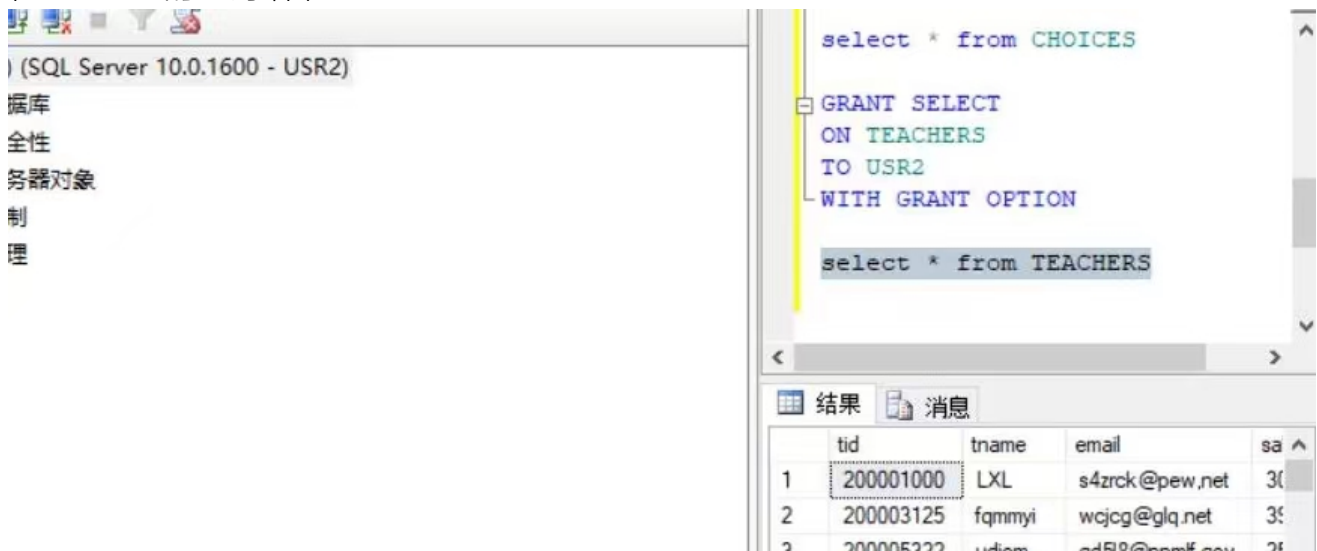
实验结果：



The screenshot shows the SQL Server Enterprise Manager interface. On the left, the 'Server Objects' tree is expanded to 'Database' > 'School'. The main pane shows a query window with the text 'GRANT SELECT,UPDATE ON TEACHERS TO USER2 WITH GRANT OPTION'. Below the query, the 'Messages' tab is active, displaying the message '命令已成功完成。' (Command completed successfully).

	no	sid	tid	cid	score
1	500000058	823069829	249596497	10037	76
2	500000253	829348273	202560416	10010	87
3	500001270	847061074	292043491	10025	92
4	500002143	860635914	238811498	10039	82

在USER2上的查询结果：



The screenshot shows the SQL Server Enterprise Manager interface. On the left, the 'Server Objects' tree is expanded to 'Security' > 'Users', showing 'USER2'. The main window displays a SQL query window with the following text:

```
select * from CHOICES  
  
GRANT SELECT  
ON TEACHERS  
TO USER2  
WITH GRANT OPTION  
  
select * from TEACHERS
```

Below the query window, the 'Results' tab is active, showing a table with the following data:

	tid	tname	email	sa
1	200001000	LXL	s4zrck@pew.net	30
2	200003125	fqmmyi	wjcg@glq.net	30
3	200005322	udiam	ed5R@nmf.gov	20

## 6.

由USER2授予USER3对表 TEACHERS的查询权限,和传播的此项权限的权利。再由USER3授予USER2上述权限,这样的SQL语句能否成功得到执行?

由USER2向USER3授权：

```
GRANT SELECT,UPDATE  
ON TEACHERS  
TO USER3  
WITH GRANT OPTION
```

实验结果：



The screenshot shows the SQL Server Enterprise Manager interface. The main window displays a SQL query window with the following text:

```
GRANT SELECT,UPDATE  
ON TEACHERS  
TO USER3  
WITH GRANT OPTION
```

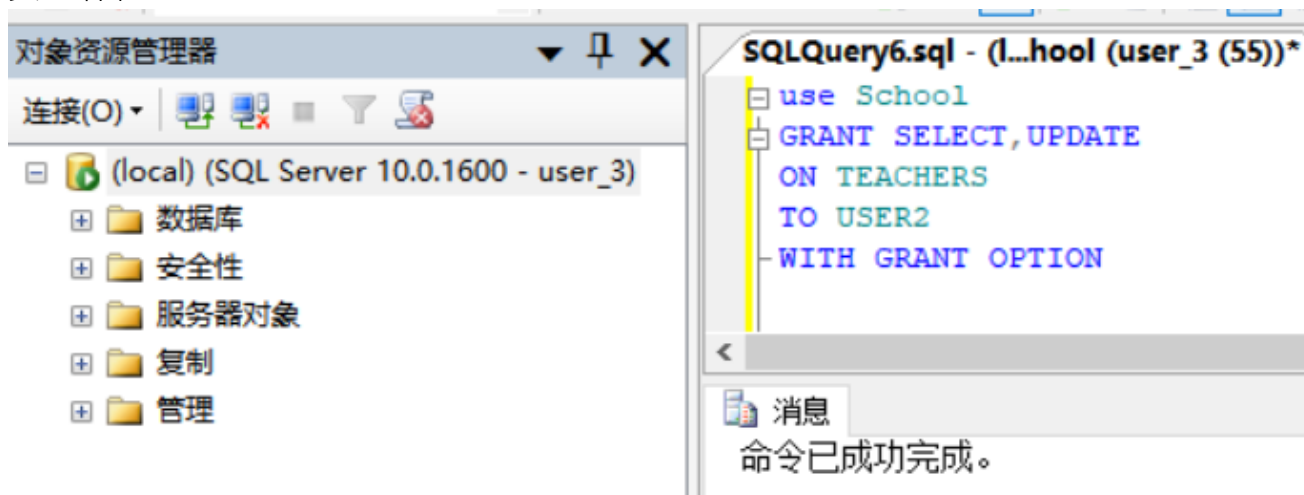
Below the query window, the 'Messages' tab is active, showing the message:

命令已成功完成。

由USER3向USER2授权：

```
GRANT SELECT,UPDATE  
ON TEACHERS  
TO USER2  
WITH GRANT OPTION
```

实验结果：



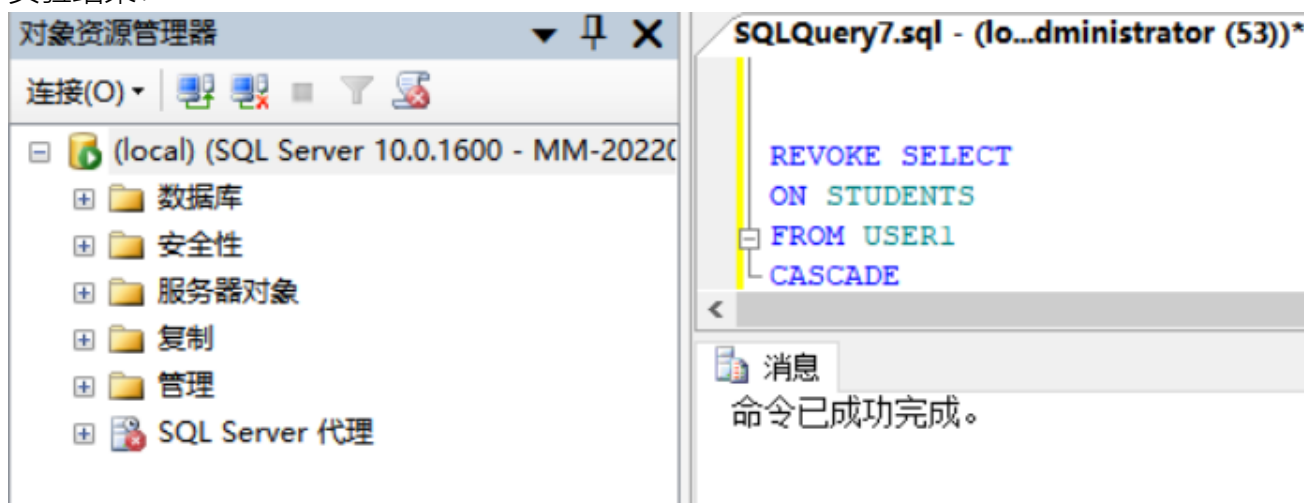
SQL语句可以执行，授权循环被允许的。

## 7.

取消USER1对表 STUDENTS的查询权限,考虑由USER2的身份对表 STUDENTS进行查询,操作能否成功?为什么?

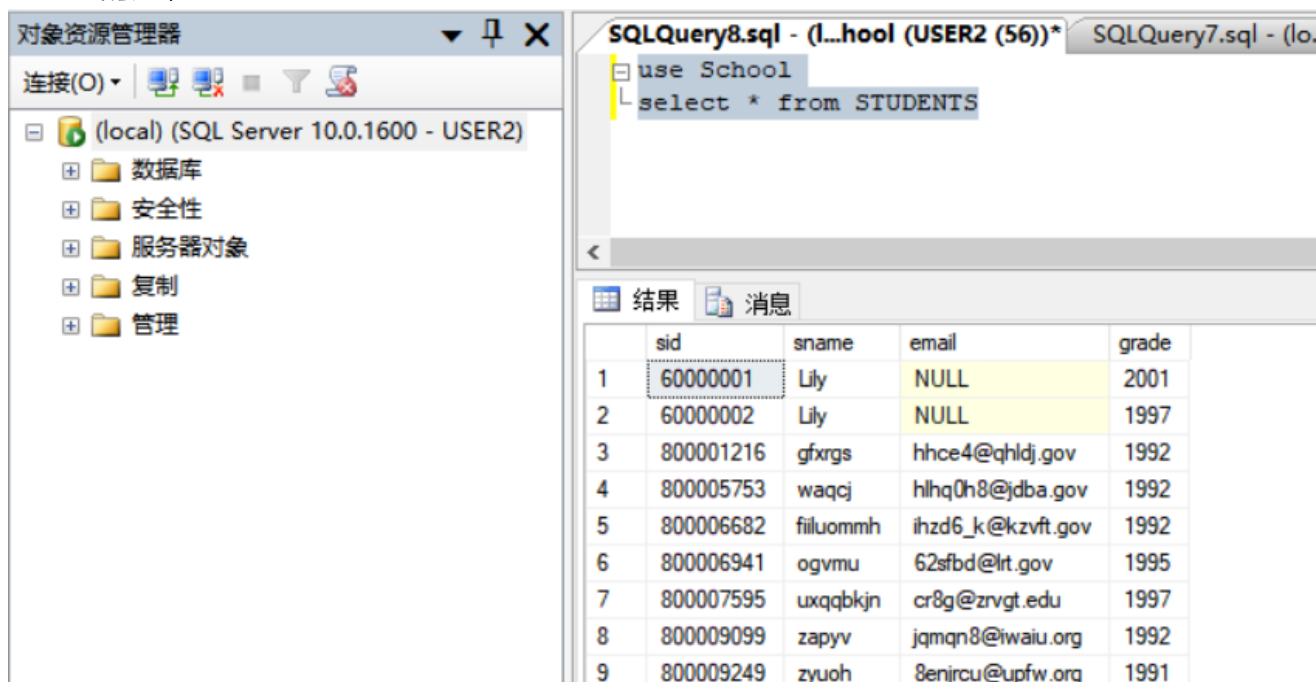
```
REVOKE SELECT
ON STUDENTS
FROM USER1
CASCADE
```

实验结果：



由USER2的身份对表STUDENTS进行查询的操作，查询成功，因为取消了USER1的查询权限，

USER2的还在：



The screenshot shows the SQL Server Enterprise Manager on the left, connected to a local SQL Server 10.0.1600 instance as USER2. The right pane shows a SQL Query window with the following query:

```
use School
select * from STUDENTS
```

The query results are displayed in a table with the following columns: sid, sname, email, and grade.

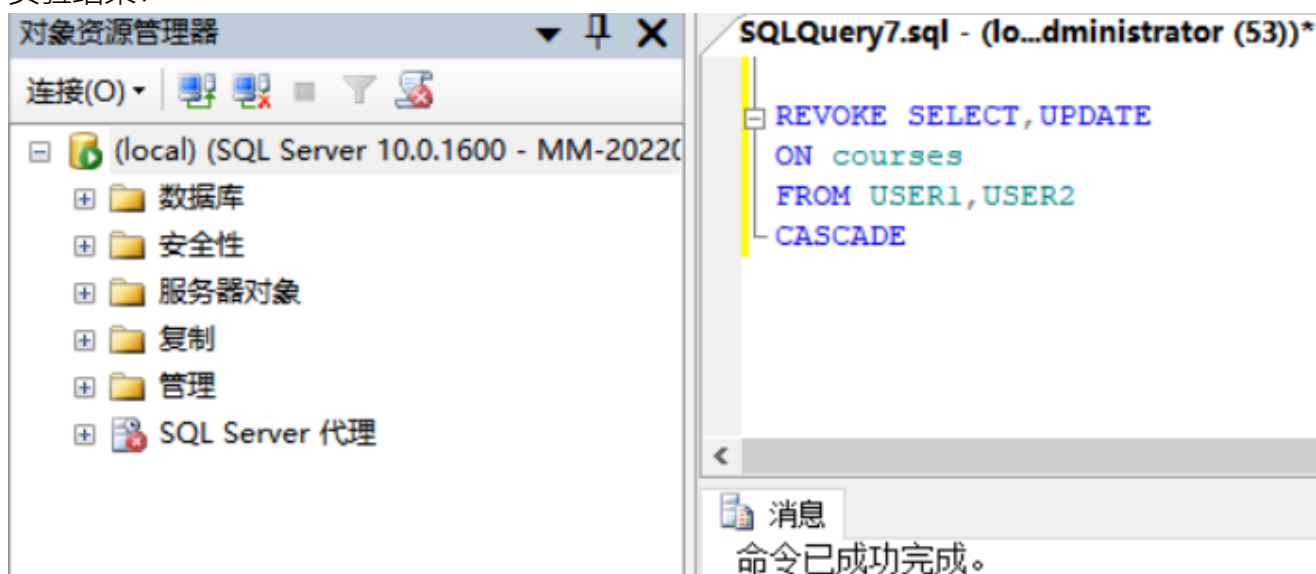
	sid	sname	email	grade
1	60000001	Lily	NULL	2001
2	60000002	Lily	NULL	1997
3	800001216	gfrgs	hhce4@qhldj.gov	1992
4	800005753	waqcj	hlhq0h8@jdba.gov	1992
5	800006682	fiuommh	ihzd6_k@kzvt.gov	1992
6	800006941	ogvmu	62sfbd@lt.gov	1995
7	800007595	uxqqbkjn	cr8g@zrvgt.edu	1997
8	800009099	zapyv	jmqn8@iwaiu.org	1992
9	800009249	zyuoh	8enjrcu@upfw.org	1991

8、

取消USER1和USER2的关于表 COURSES的权限

```
REVOKE SELECT,UPDATE
ON courses
FROM USER1,USER2
CASCADE
```

实验结果：



The screenshot shows the SQL Server Enterprise Manager on the left, connected to a local SQL Server 10.0.1600 instance as MM-20220. The right pane shows a SQL Query window with the following query:

```
REVOKE SELECT,UPDATE
ON courses
FROM USER1,USER2
CASCADE
```

The query results are displayed in a table with the following columns: sid, sname, email, and grade.

	sid	sname	email	grade
1	60000001	Lily	NULL	2001
2	60000002	Lily	NULL	1997
3	800001216	gfrgs	hhce4@qhldj.gov	1992
4	800005753	waqcj	hlhq0h8@jdba.gov	1992
5	800006682	fiuommh	ihzd6_k@kzvt.gov	1992
6	800006941	ogvmu	62sfbd@lt.gov	1995
7	800007595	uxqqbkjn	cr8g@zrvgt.edu	1997
8	800009099	zapyv	jmqn8@iwaiu.org	1992
9	800009249	zyuoh	8enjrcu@upfw.org	1991

The message pane at the bottom indicates: 命令已成功完成。