# Homework #6: User Management

- This is an individual assignment, and is worth 20 points.
- The due date is Monday, March 22, 2021.
- The database for the assignment (**AdventureWorks2016CTP3**) is installed on our Proxmox server. You are to download this document after you login to the Proxmox server.
- You should answer the questions in blue.
- You will get deductions if the requested screenshots are not provided.
- Please zoom in your output. I will penalize you if your screenshots are too small.

Task #4. Assigning User Mappings to Fixed Database Roles

A. Assigning a user to a database role
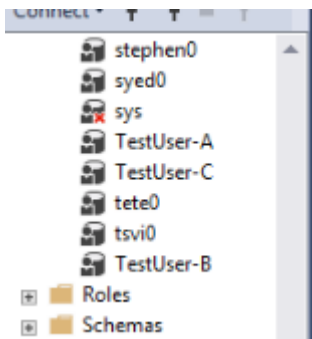
B. Verifying the results
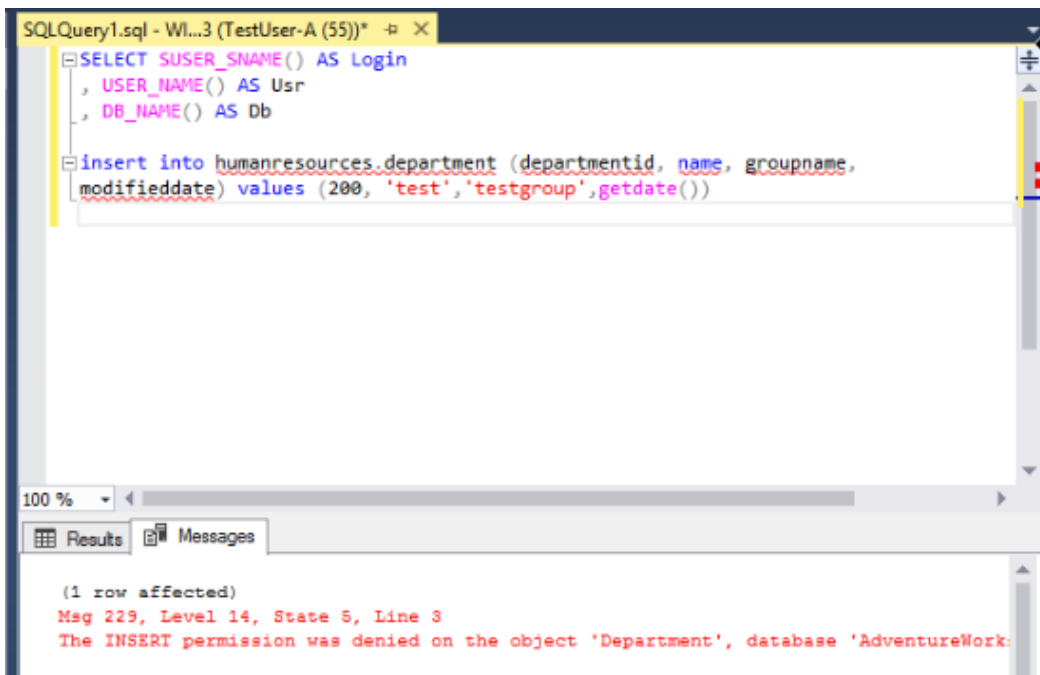
5) Does it fail? Show the result in a screenshot. Describe your observation and explain why it fails.

Yes, it failed, because the human resources department is not defined within the database.

```
SQLQuery2.sql - WI...3 (TestUser-B (53))*  ⊞ ✕
⊟SELECT SUSER_SNAME() AS Login
  , USER_NAME() AS Usr
  , DB_NAME() AS Db

⊟select departmentid, name, groupname, modifieddate
  from humanresources.department
```

100 %

Results   Messages

```
(1 row affected)
Msg 229, Level 14, State 5, Line 3
The SELECT permission was denied on the object 'Department', database 'AdventureWork:
```

10) Does it fail? Show the result in a screenshot. Describe your observation and explain why it fails.
Yes, it failed, because TestUser-B does not have access to access the data within the database.

Task #5. Creating a Custom Database Role

A. Creating a custom database role
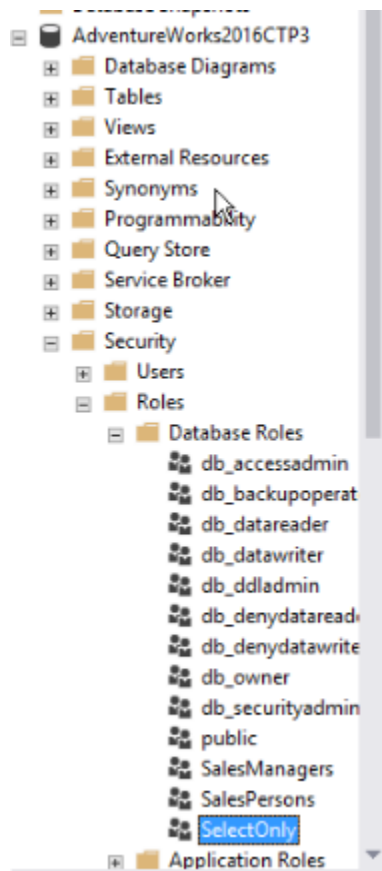
B. Verifying results


```
SELECT SUSER_SNAME() AS Login
, USER_NAME() AS Usr
, DB_NAME() AS Db

use AdventureWorks2016CTP3
select * from humanresources.department
```

	Login	Usr	Db
1	TestUser-C	TestUser-C	AdventureWorks2016CTP3

	DepartmentID	Name	GroupName	ModifiedDate
1	1	Engineering	Research and Development	2008-04-30 00:00:00.000
	2	Tool Design	Research and Development	2008-04-30 00:00:00.000
	3	Sales	Sales and Marketing	2008-04-30 00:00:00.000
	4	Marketing	Sales and Marketing	2008-04-30 00:00:00.000
	5	Purchasing	Inventory Management	2008-04-30 00:00:00.000
	6	Research ...	Research and Development	2008-04-30 00:00:00.000
	7	Production	Manufacturing	2008-04-30 00:00:00.000
	8	Productio...	Manufacturing	2008-04-30 00:00:00.000

4) Does it work? Show the result in a screenshot. Describe your observation and explain why it works.
Yes, it worked, because we just granted access to the user.
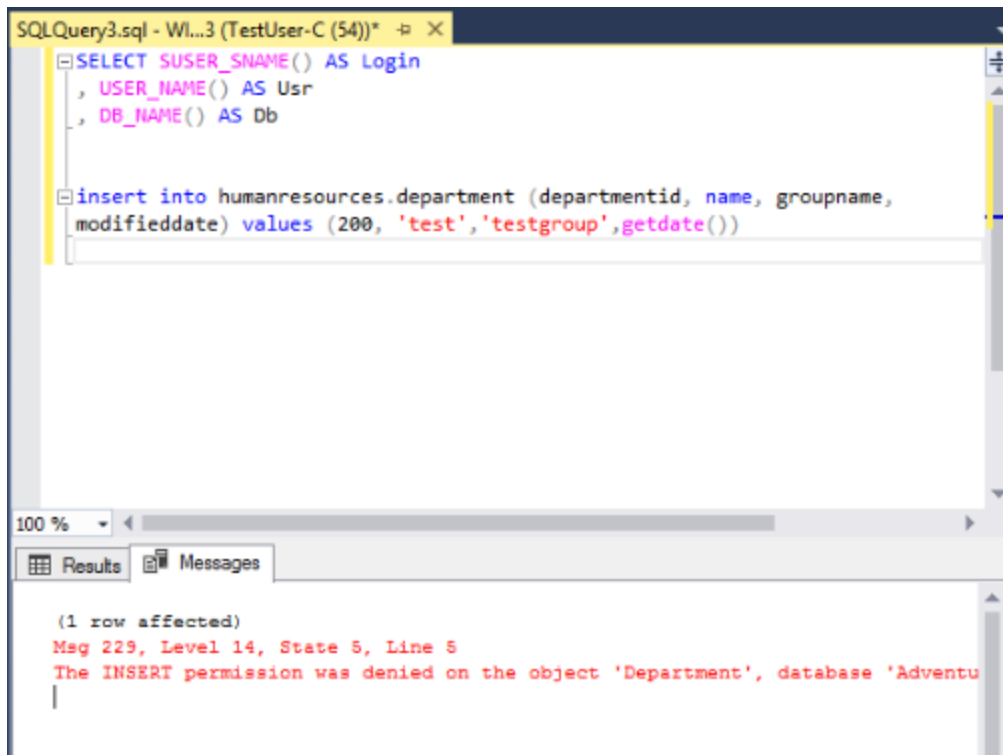
```
SQLQuery3.sql - WI...3 (TestUser-C (54))*  + ×
□SELECT SUSER_SNAME() AS Login
  , USER_NAME() AS Usr
  , DB_NAME() AS Db


□insert into humanresources.department (departmentid, name, groupname,
  modifieddate) values (200, 'test','testgroup',getdate())
```

```
100 %   ▾ ◂

 ⊞ Results  ⊟ Messages

  (1 row affected)
  Msg 229, Level 14, State 5, Line 5
  The INSERT permission was denied on the object 'Department', database 'Adventu
```
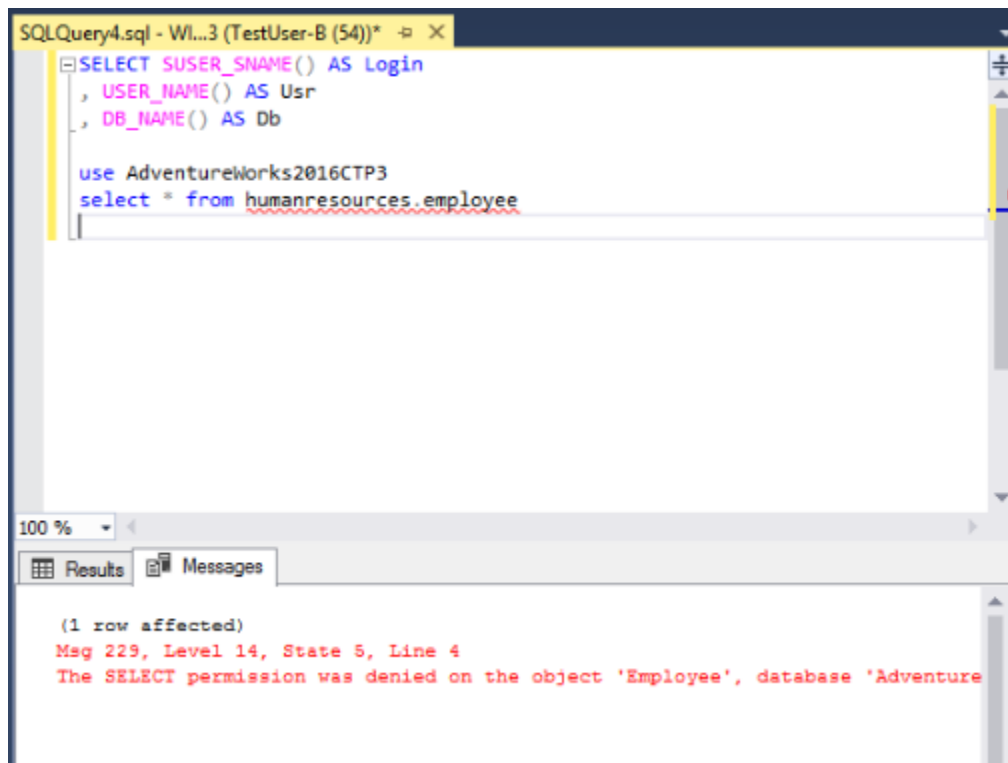
5) Does it fail? Show the result in a screenshot. Describe your observation and explain why it fails.
Yes, it failed, because TestUser-C does not have datawriter privileges.

Task #6. Creating an Application Role

A. Creating an Application Role
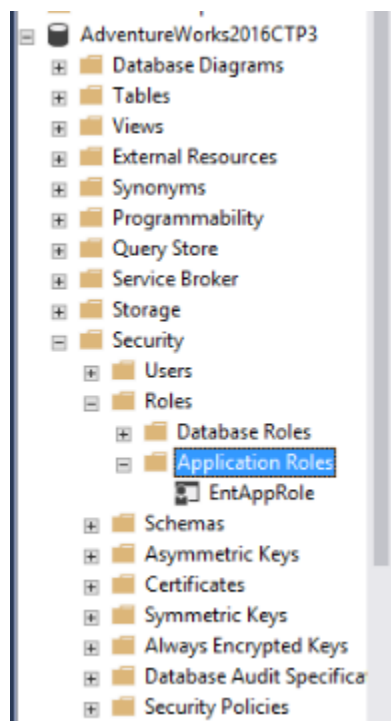
B. Verifying Results

2) Does it fail? Show the result in a screenshot. Describe your observation and explain why it fails.
Yes, it does fail, because we gave select permission to the admin account not TestUser-B.

```
SQLQuery6.sql - WI...Administrator (53))*
use AdventureWorks2016CTP3
select * from humanresources.employee
```
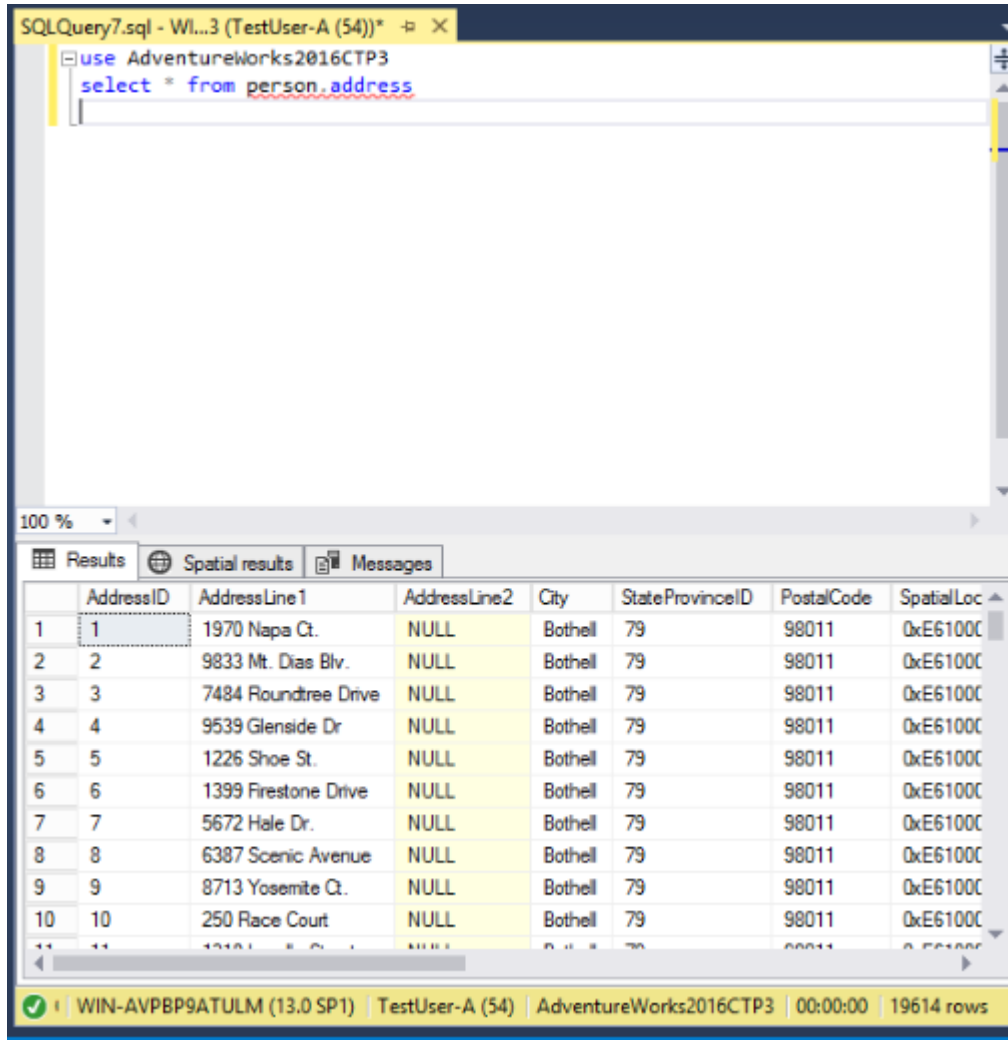
100 %

Results | Messages

	BusinessEntityID	NationalIDNumber	LoginID	OrganizationNode	OrganizationLevel
1	1	295847284	adventure-works\ken0	NULL	NULL
2	2	245797967	adventure-works\terri0	0x58	1
3	3	509647174	adventure-works\roberto0	0x5AC0	2
4	4	112457891	adventure-works\rob0	0x5AD6	3
5	5	695256908	adventure-works\gail0	0x5ADA	3
6	6	998320692	adventure-works\jossef0	0x5ADE	3
7	7	134969118	adventure-works\dylan0	0x5AE1	3
8	8	811994146	adventure-works\diane1	0x5AE158	4
9	9	658797903	adventure-works\gigi0	0x5AE168	4
10	10	879342154	adventure-works\michael6	0x5AE178	4

4) Does it work? Show the result in a screenshot. You have to click on Results to view the results.
Describe your observation and explain why it works.
Yes, it did work, because we enabled the application role, allowing the query the proper permissions.

Task #7. Assigning Permissions

9) Does it work? Show the result in a screenshot. Describe your observation and explain why it works.
Yes, it worked, because we just gave select permission to TestUser-A.

```
SQLQuery9.sql - WI...3 (TestUser-A (55))*  + ×
 use AdventureWorks2016CTP3
   select * from person.address
```

```
100 %  ▼ ◄
 Messages
    Msg 229, Level 14, State 5, Line 2
    The SELECT permission was denied on the object 'Address', database 'AdventureW
```
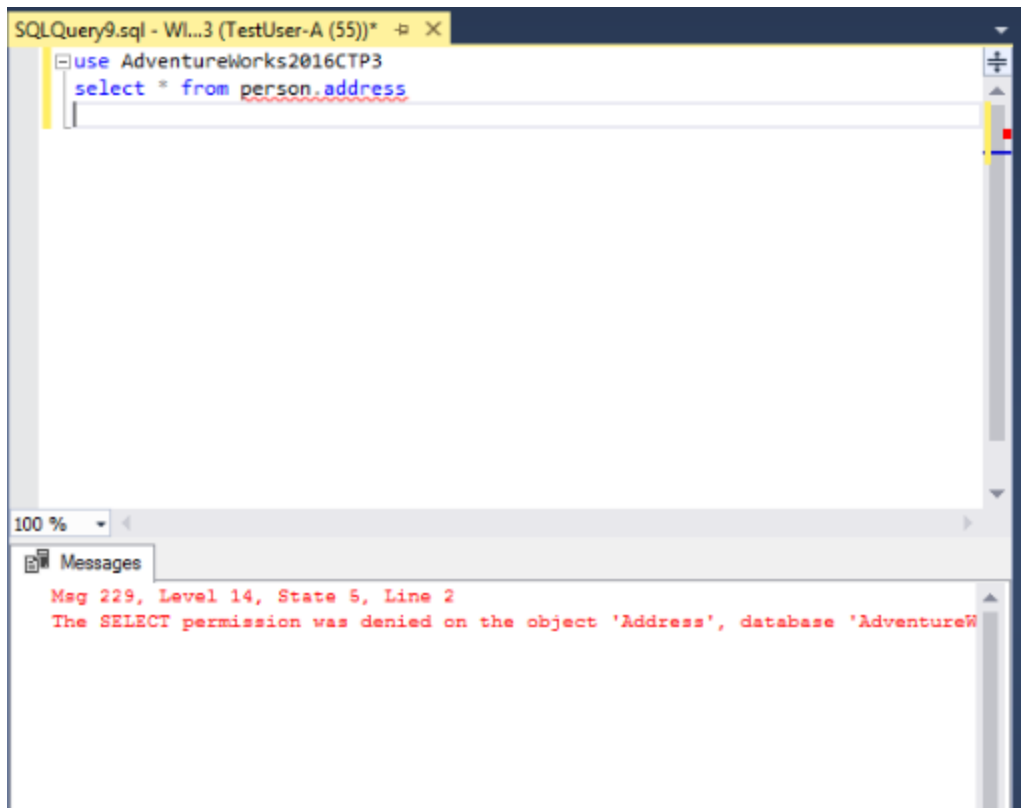
13) Run the previous query. Show the result in a screenshot. Describe your observation and explain why it fails.
It does not work any longer because we removed the permission.

15) Run the previous query. Show the result in a screenshot. Describe your observation and explain why it works.
Yes, because we gave TestUser-A datareader permission, which allows that user to access tables.

```
SQLQuery13.sql - WI...3 (TestUser-A (53))*  ↔ ✕
⊟use AdventureWorks2016CTP3
  select * from person.address
```

```
Msg 229, Level 14, State 5, Line 2
The SELECT permission was denied on the object 'Address', database 'AdventureW
```
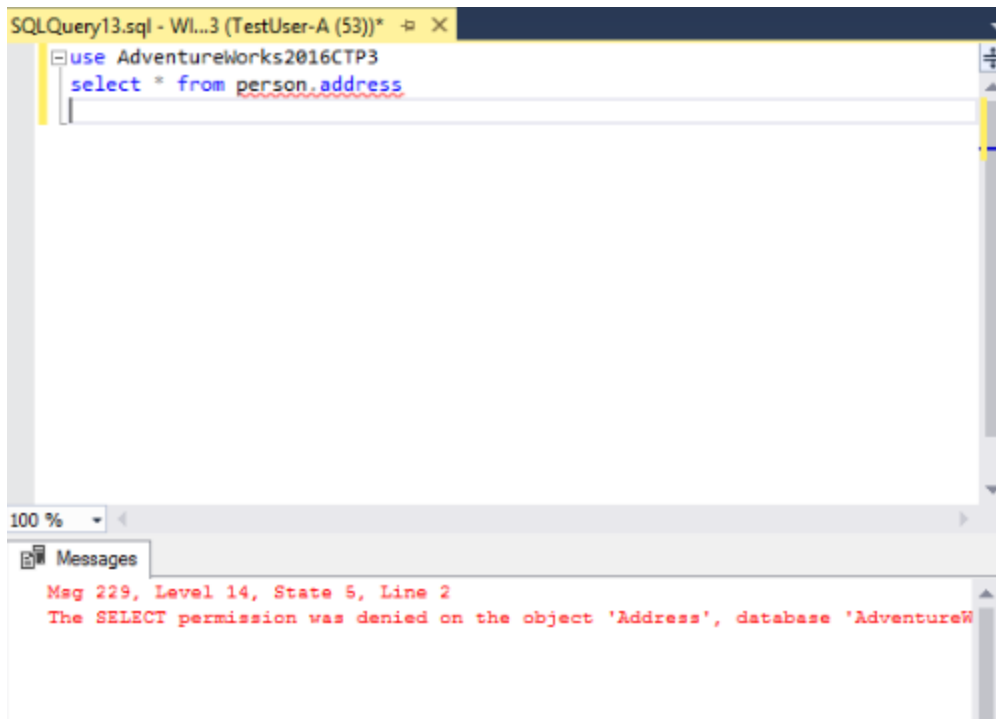
19) Run the previous query. Show the result in a screenshot. Describe your observation and explain why it fails.

It did not execute, because we just denied them permission to that table.