

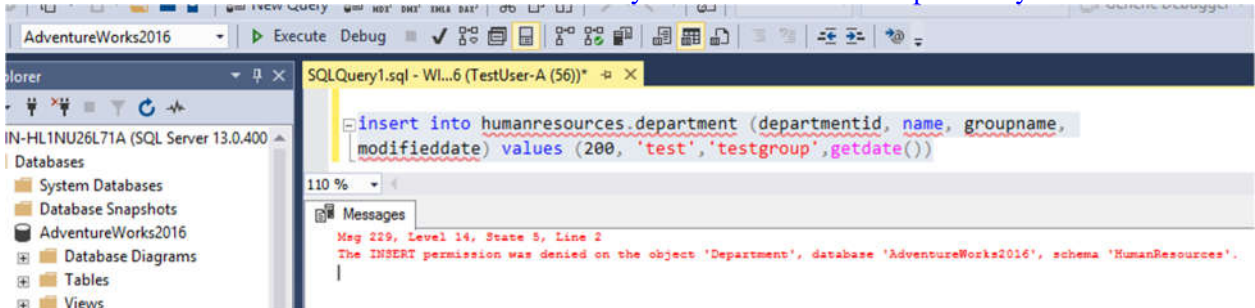
## Homework 6: User Management

### Task 4. Assigning User Mappings to Fixed Database Roles

#### A. Assigning a user to a database role

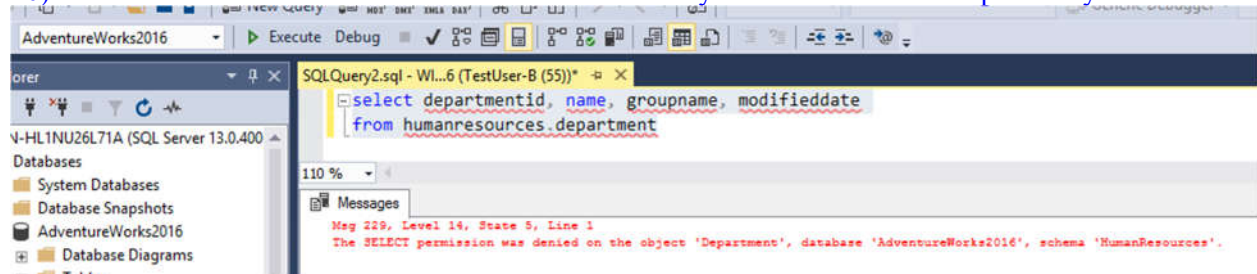
#### B. Verifying the results

5) Does it fail? Show the result in a screenshot. Describe your observation and explain why it fails.



The query fails. TestUser-A was assigned the db-denydatawriter database role for the “AdventureWorks 2016” database. TestUser-A cannot write to the database, so this and any Insert command from this user will fail.

10) Does it fail? Show the result in a screenshot. Describe your observation and explain why it fails.



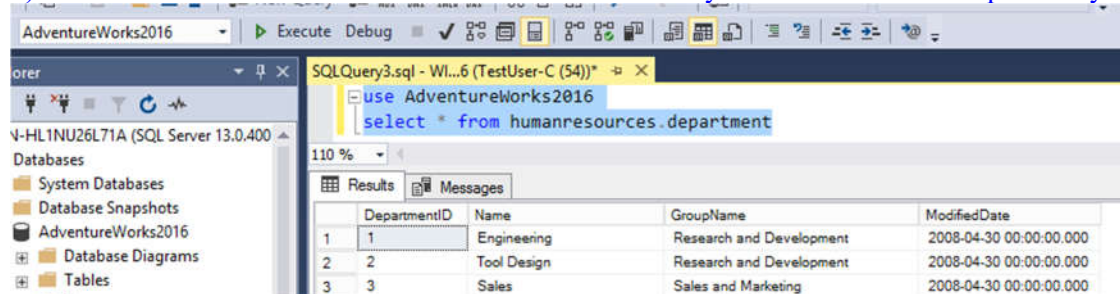
The query fails. TestUser-B was assigned the db-denydatareader database role. TestUser-B cannot read any data in the database, so this and any other Select command from this user will fail.

### Task 5. Creating a Custom Database Role

#### A. Creating a custom database role

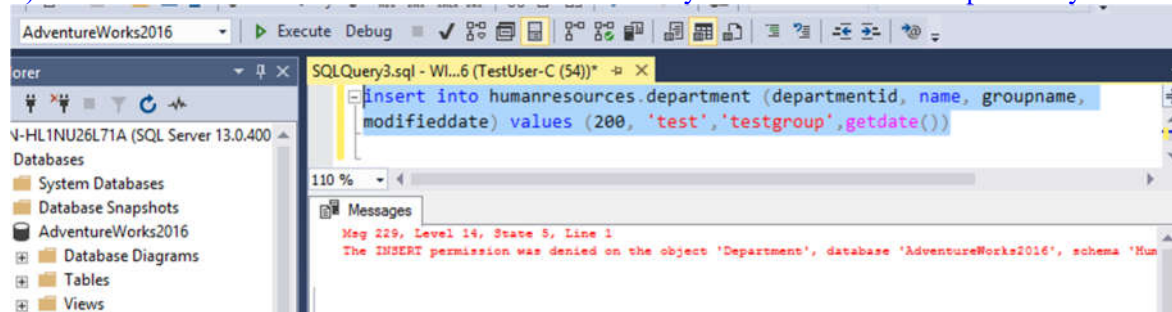
#### B. Verifying results

4) Does it work? Show the result in a screenshot. Describe your observation and explain why it works.



The query works. TestUser-C was assigned to the “SelectOnly” custom database role, which explicitly grants Select permission. This and any other Select command on this database will work for this user.

5) Does it fail? Show the result in a screenshot. Describe your observation and explain why it fails.



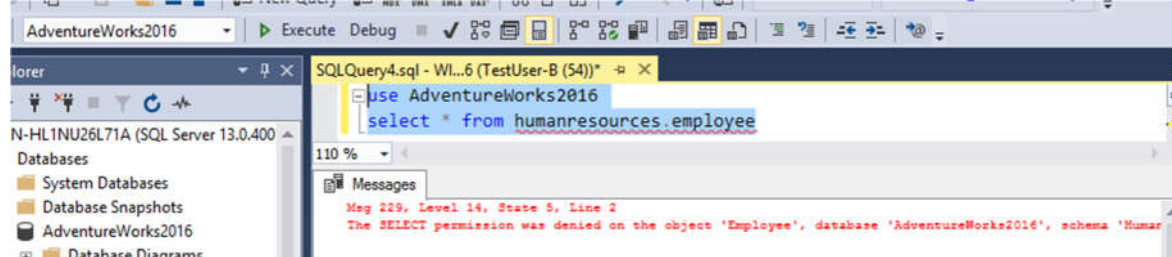
The query fails. TestUser-C only has the “SelectOnly” custom database role. This role only grants Select permission and nothing else. This Insert command, and any other command that is not a Select command will fail.

## Task 6. Creating an Application Role

### A. Creating an Application Role

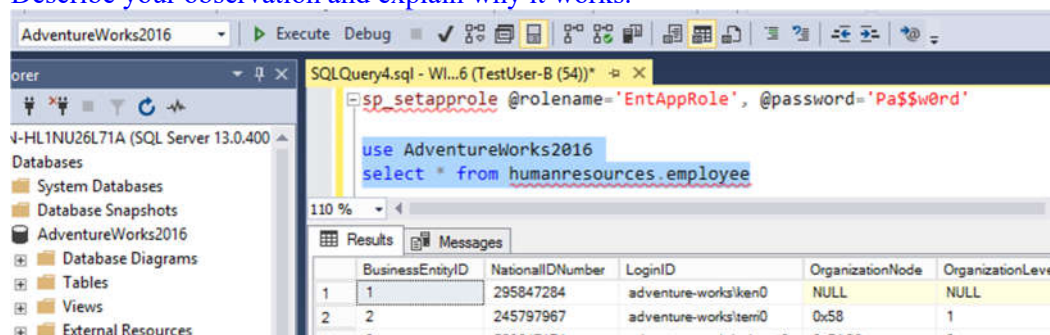
### B. Verifying Results

2) Does it fail? Show the result in a screenshot. Describe your observation and explain why it fails.



The query fails. TestUser-B was assigned the db-denydatareader database role. TestUser-B cannot read any data in the database, so this and any other Select command from this user will fail.

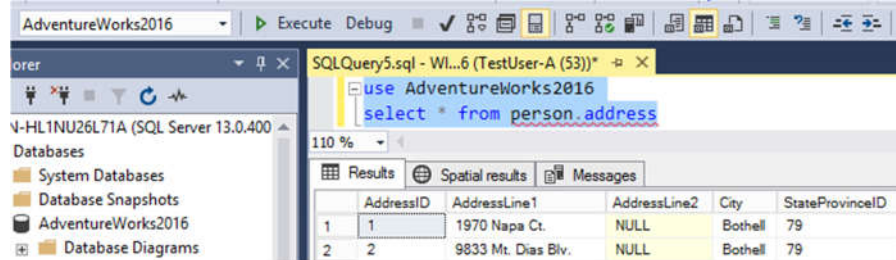
4) Does it work? Show the result in a screenshot. You have to click on Results to view the results. Describe your observation and explain why it works.



The query works. Since the current user is set to use the “EntAppRole” and that role was granted the ability to select from the humanresources.employee table, this and any other Select command will work.

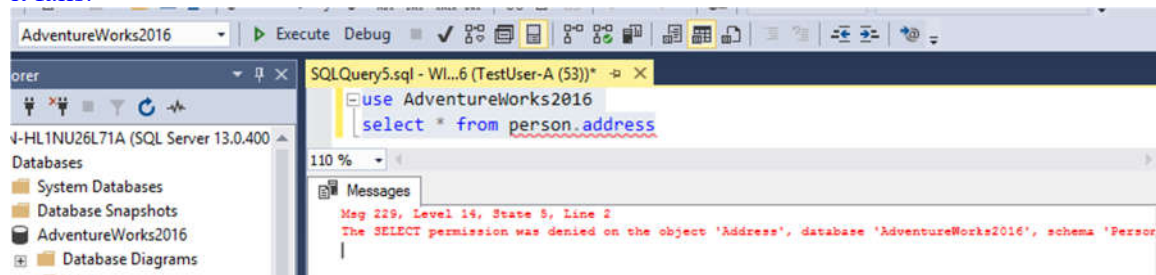
## Task 7. Assigning Permissions

9) Does it work? Show the result in a screenshot. Describe your observation and explain why it works.



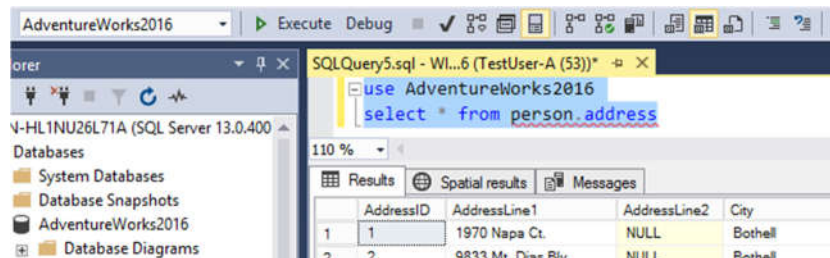
The query works. Database user TestUser-A was explicitly granted permission to run Select commands on the person.address table.

13) Run the previous query. Show the result in a screenshot. Describe your observation and explain why it fails.



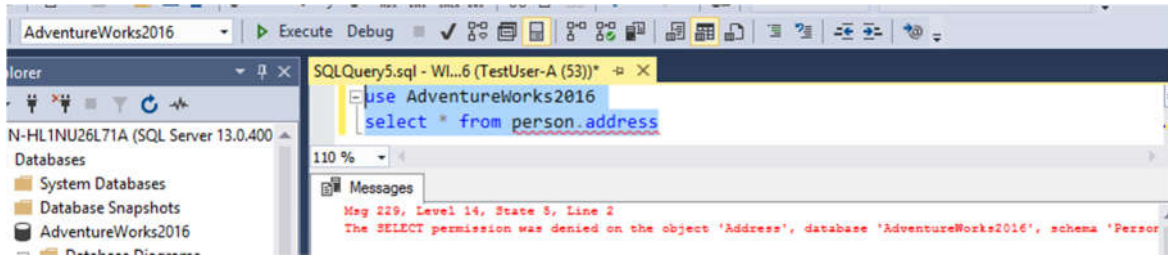
The query fails. Permission for Select commands was removed from the database user TestUser-A. Since TestUser-A does not receive this permission from any assigned roles, they cannot run select commands on this table.

15) Run the previous query. Show the result in a screenshot. Describe your observation and explain why it works.



The query works. TestUser-A was granted permission to run Select commands on this table through belonging to the database role db\_datareader.

19) Run the previous query. Show the result in a screenshot. Describe your observation and explain why it fails.



The query fails. Despite still belonging to the `db_datareader` role, permissions always default to the strictest applicable. `TestUser-A`'s user permissions are set to Deny Select commands, so this prevents any reading of the table even if permission is granted elsewhere.