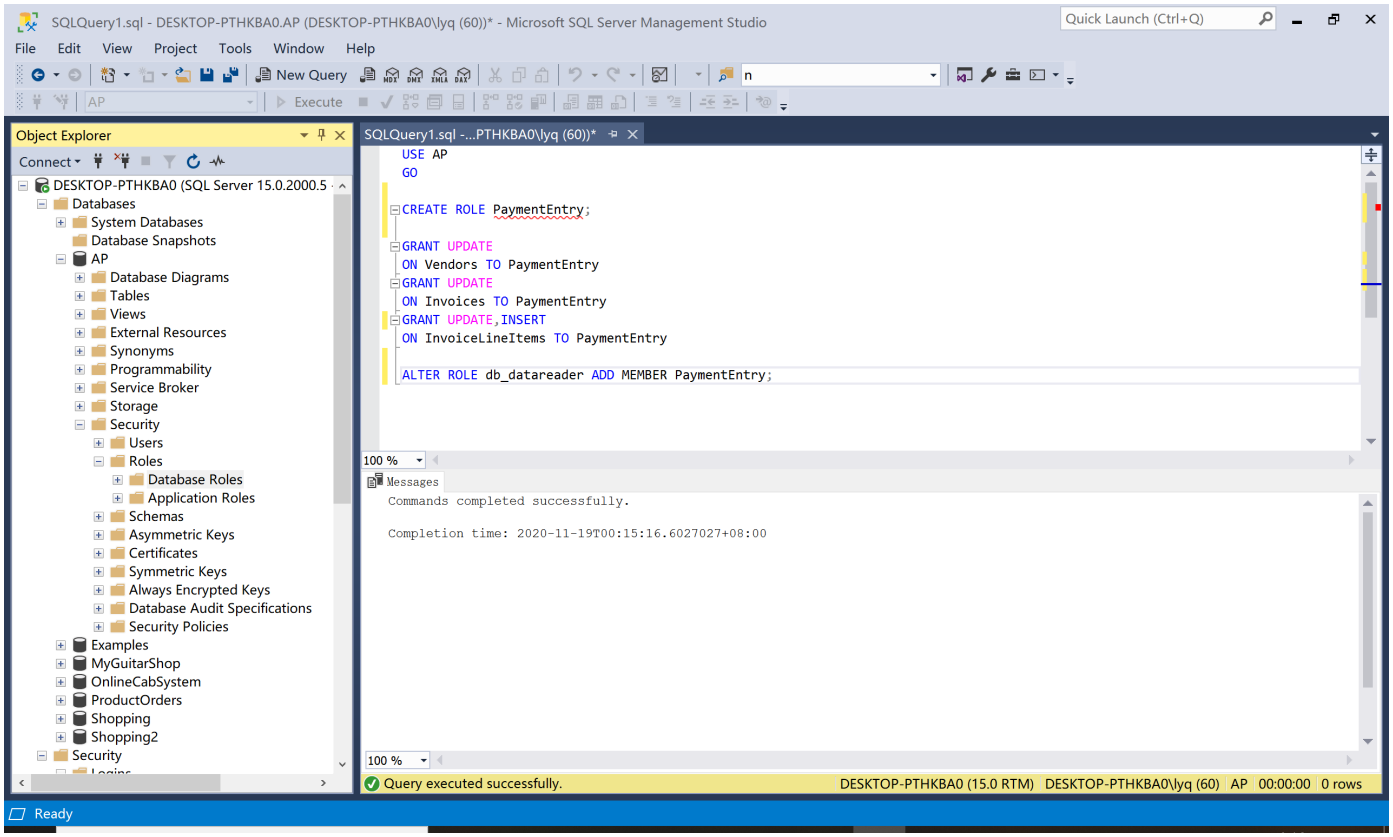
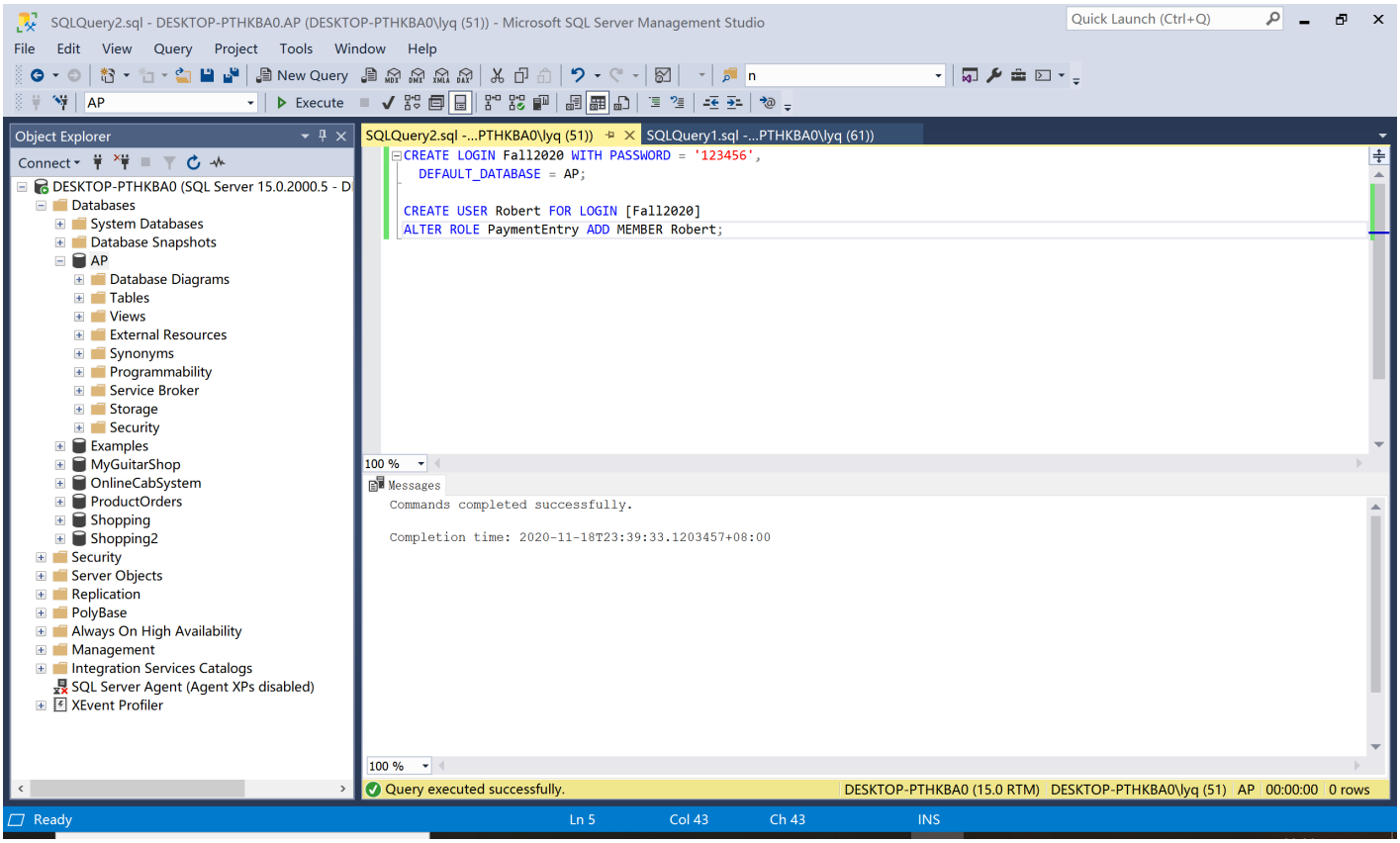
Lab 11: Server Security

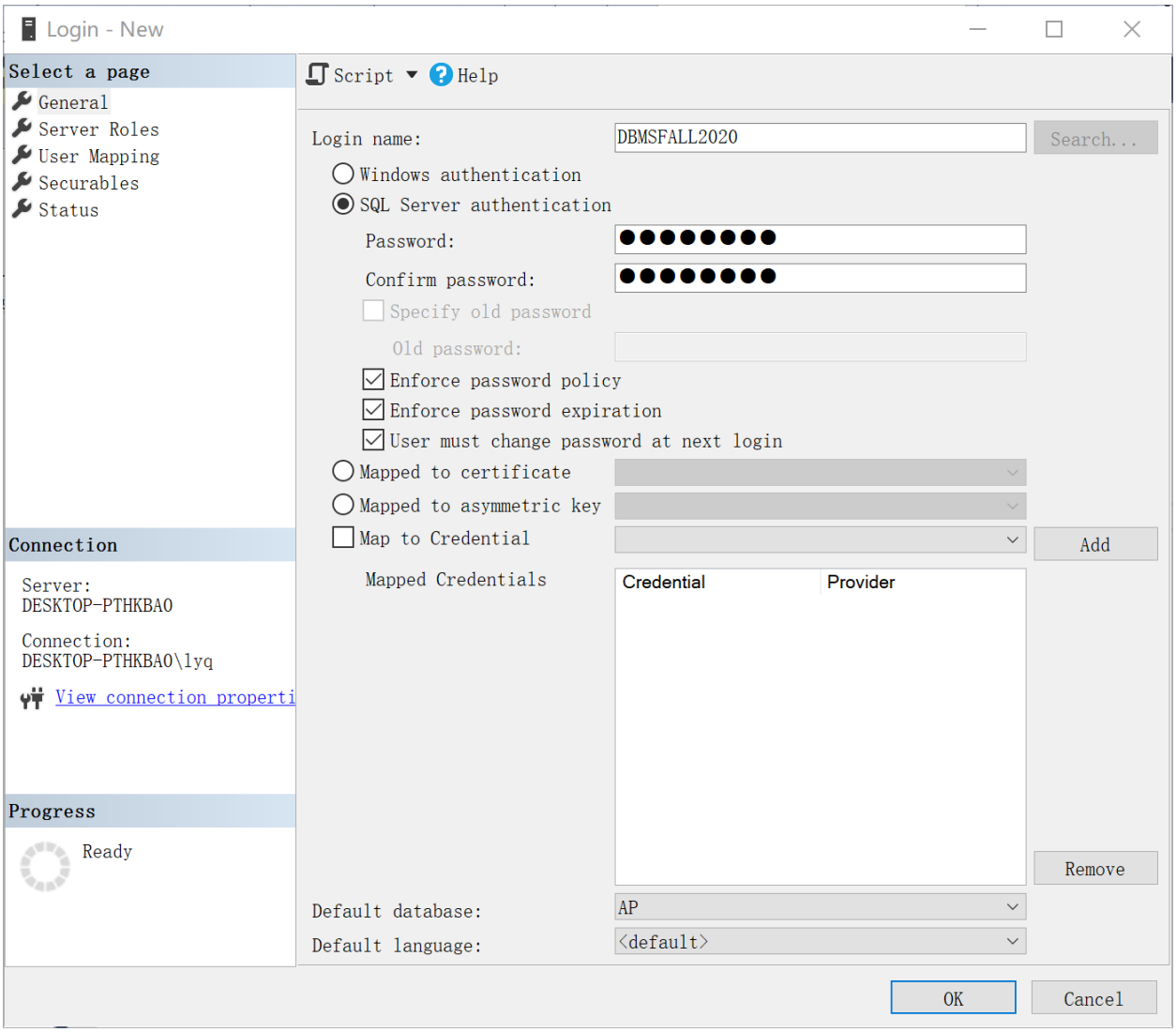
1. Write a script that creates a user-defined database role named PaymentEntry in the AP database. Give UPDATE permission to the new role for the Vendors and Invoices table, UPDATE and INSERT permission for the InvoiceLineItems table, and SELECT permission for all user tables.

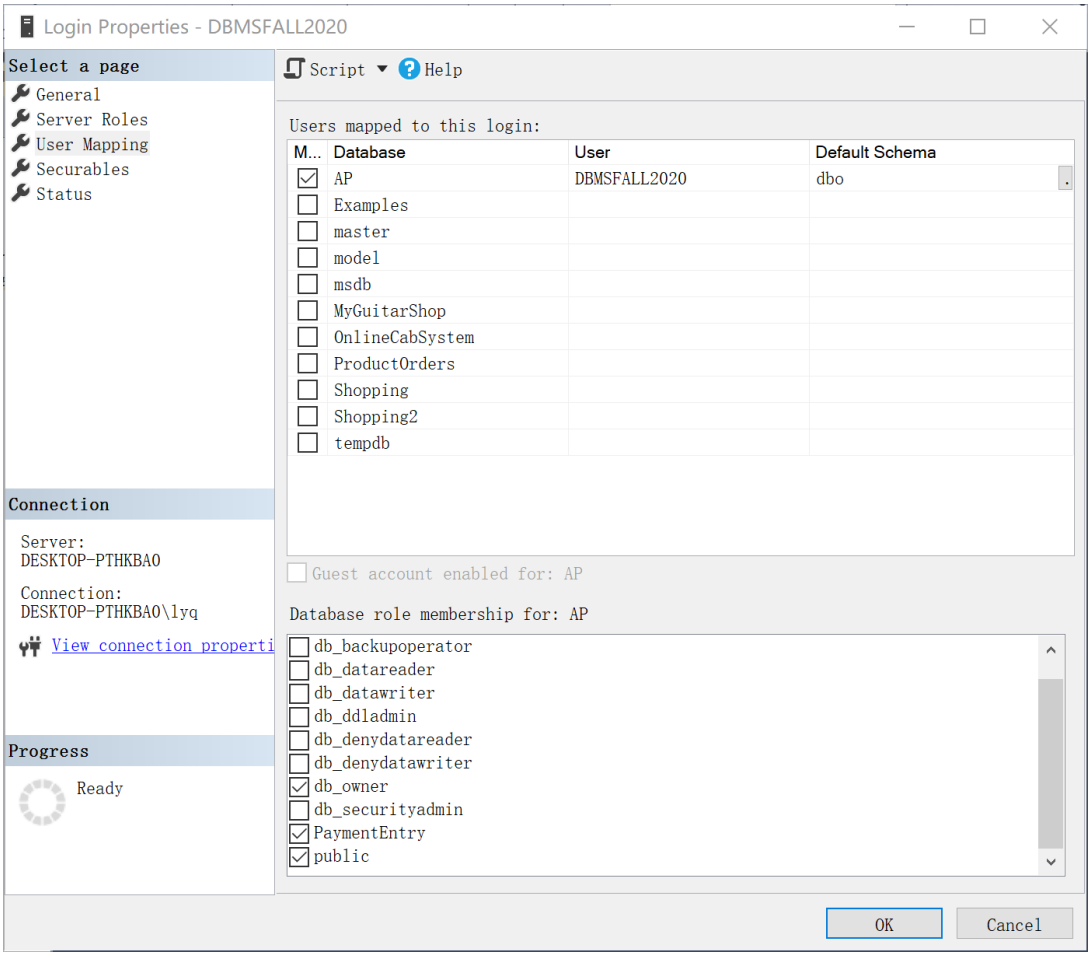


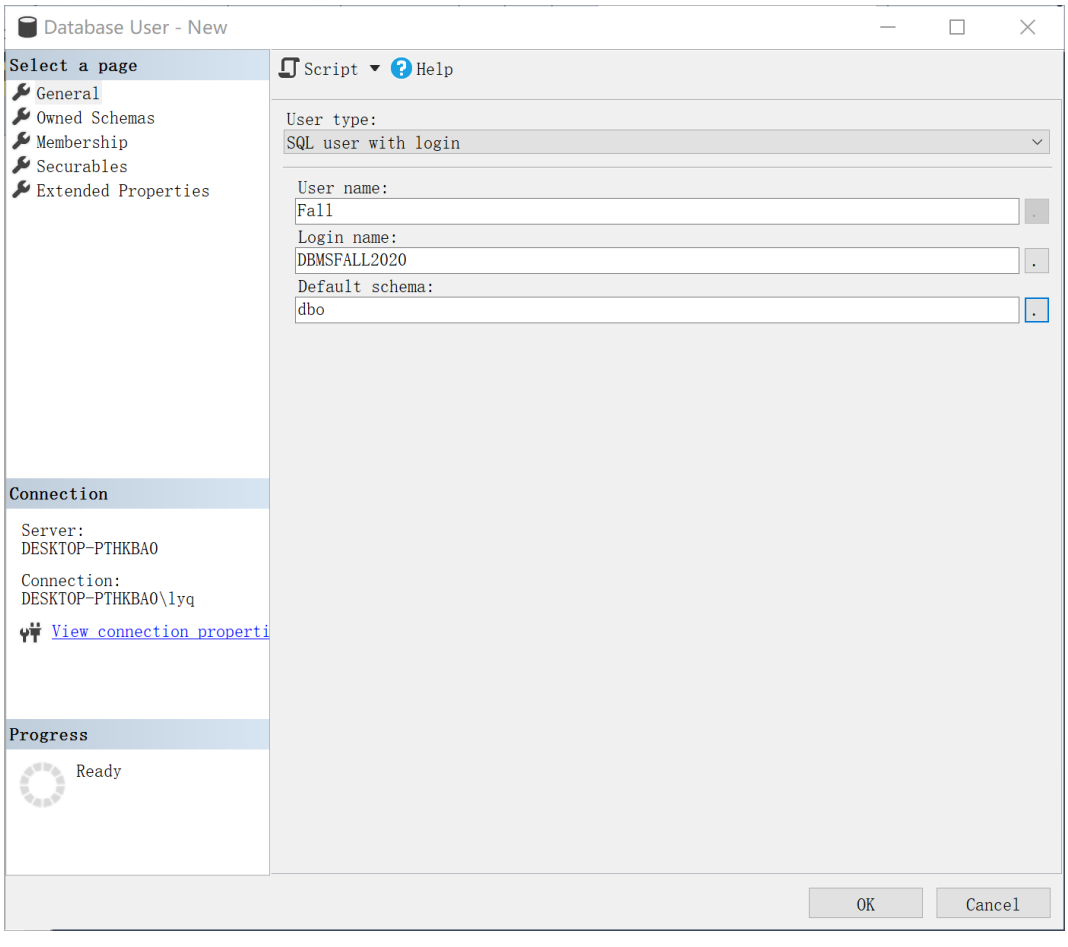
2. Write a script that (1) creates a login ID named “Fall2020” with the password “123456”; (2) sets the default database for the login to the AP database; (3) creates a user named “Robert” for the login; and (4) assigns the user to the PaymentEntry role you created in question 1.

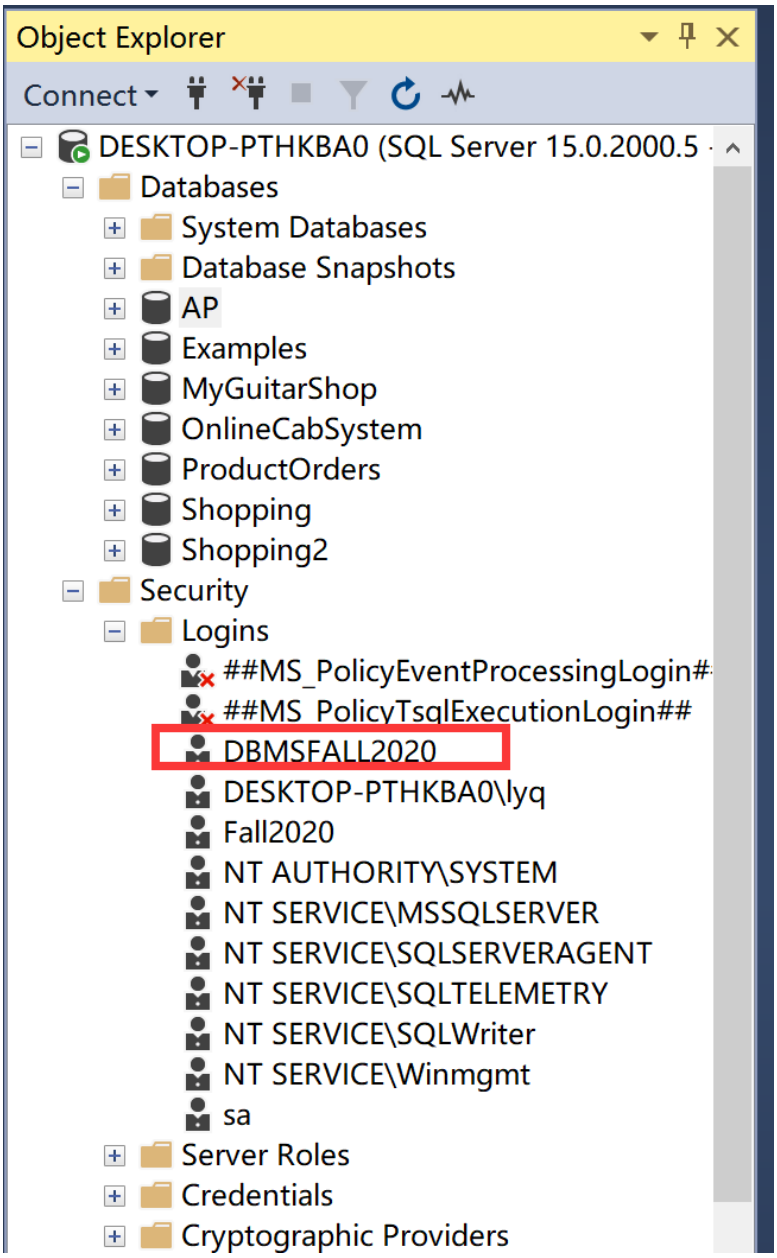


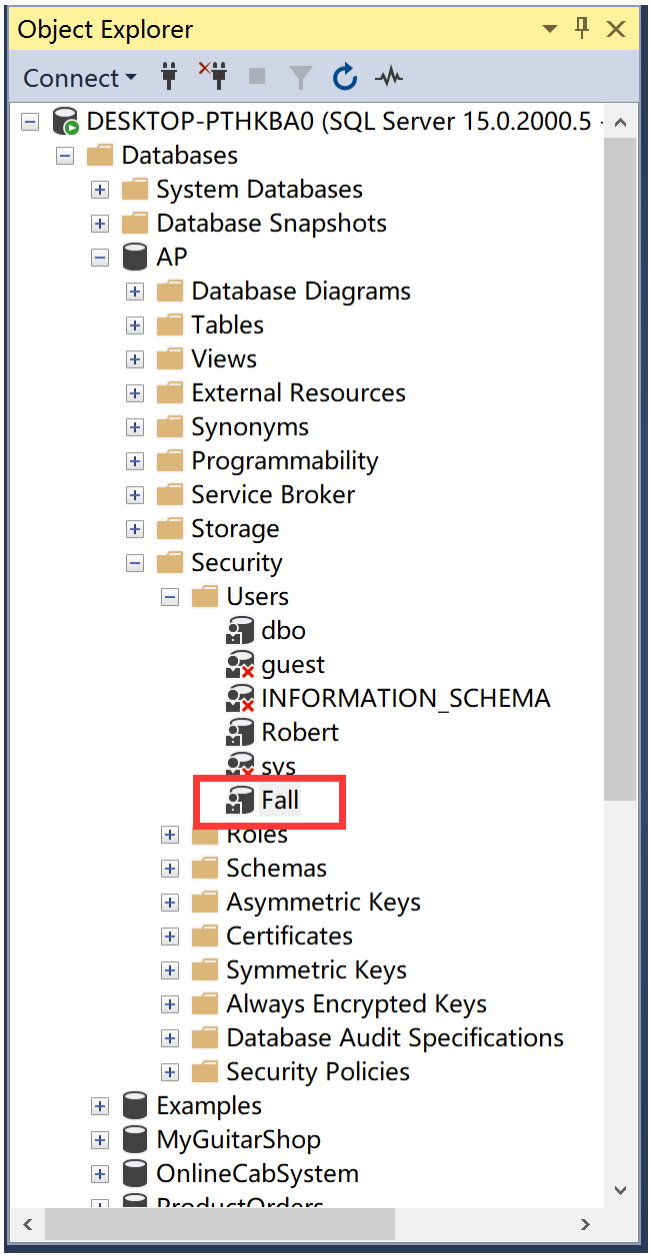
3. Using the Management Studio (do not write a query), create a login ID named "DBMSFALL2020" with the password "Fall0202" and set the default database to the AP database. Then, grant the login ID access to the AP database, create a user for the login ID named "Fall" and assign the user to the PaymentEntry role you created in question 1.



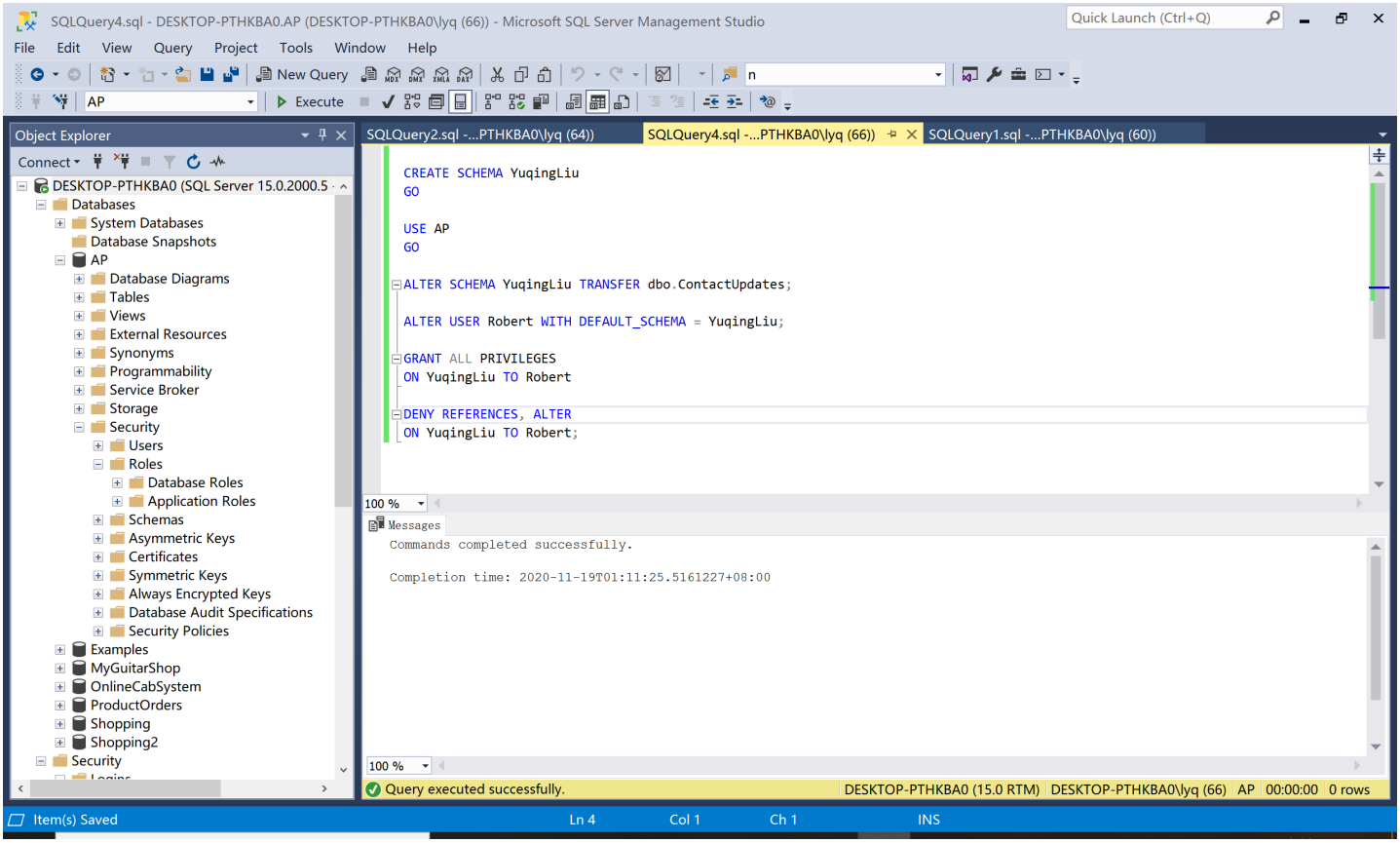

Login Properties - DBMSFALL2020
Select a page
General
Server Roles
User Mapping
Securables
Status
Script
Help
Users mapped to this login:
M...
Database
User
Default Schema
AP
DBMSFALL2020
dbo
Examples
master
model
msdb
MyGuitarShop
OnlineCabSystem
ProductOrders
Shopping
Shopping2
tempdb
Guest account enabled for: AP
Database role membership for: AP
db_backupoperator
db_datareader
db_datawriter
db_ddladmin
db_denydatareader
db_denydatawriter
db_owner
db_securityadmin
PaymentEntry
public
Connection
Server:
DESKTOP-PTHKBA0
Connection:
DESKTOP-PTHKBA0\lyq
View connection properti
Progress
Ready
OK
Cancel


Database User - New
Select a page
General
Owned Schemas
Membership
Securables
Extended Properties
Script
Help
User type:
SQL user with login
User name:
Fall
Login name:
DBMSFALL2020
Default schema:
dbo
Connection
Server:
DESKTOP-PTHKBA0
Connection:
DESKTOP-PTHKBA0\lyq
View connection properti
Progress
Ready
OK
Cancel


Object Explorer
Connect
DESKTOP-PTHKBA0 (SQL Server 15.0.2000.5
Databases
System Databases
Database Snapshots
AP
Examples
MyGuitarShop
OnlineCabSystem
ProductOrders
Shopping
Shopping2
Security
Logins
##MS_PolicyEventProcessingLogin#
##MS_PolicyTsqlExecutionLogin##
DBMSFALL2020
DESKTOP-PTHKBA0\lyq
Fall2020
NT AUTHORITY\SYSTEM
NT SERVICE\MSSQLSERVER
NT SERVICE\SQLSERVERAGENT
NT SERVICE\SQLTELEMETRY
NT SERVICE\SQLWriter
NT SERVICE\Winmgmt
sa
Server Roles
Credentials
Cryptographic Providers


Object Explorer
Connect
DESKTOP-PTHKBA0 (SQL Server 15.0.2000.5
Databases
System Databases
Database Snapshots
AP
Database Diagrams
Tables
Views
External Resources
Synonyms
Programmability
Service Broker
Storage
Security
Users
dbo
guest
INFORMATION_SCHEMA
Robert
sys
Fall
Roles
Schemas
Asymmetric Keys
Certificates
Symmetric Keys
Always Encrypted Keys
Database Audit Specifications
Security Policies
Examples
MyGuitarShop
OnlineCabSystem

4. Write a script that (1) creates a schema named as your own name, (2) transfers the table named ContactUpdates from the dbo schema to your schema, (3) assigns the Admin schema as the default schema for the user named 'Robert' that you created in question 2, (4) grants all standard privileges except for REFERENCES and ALTER to 'Robert' for your schema.



REMARKS: Here are two methods to help us to grant the security permissions , as for me I think use the Management Studio is more convenient than the statements.