Databases Laboratory Work № 1

The Installation and Configuration of SQL Server 2017

Prerequisites:

Hardware and software that meet the minimum requirements to run SQL Server 2017

Objectives:

- Install MS SQL Server 2017 Development Edition;
- Install MS SQL Server Management Studio 17x;
- Install MS SQL Server Data Tools;
- Install SQL Server Reporting;
- Install ***AdventureWorks2017*** database;
- Complete the practical tasks.

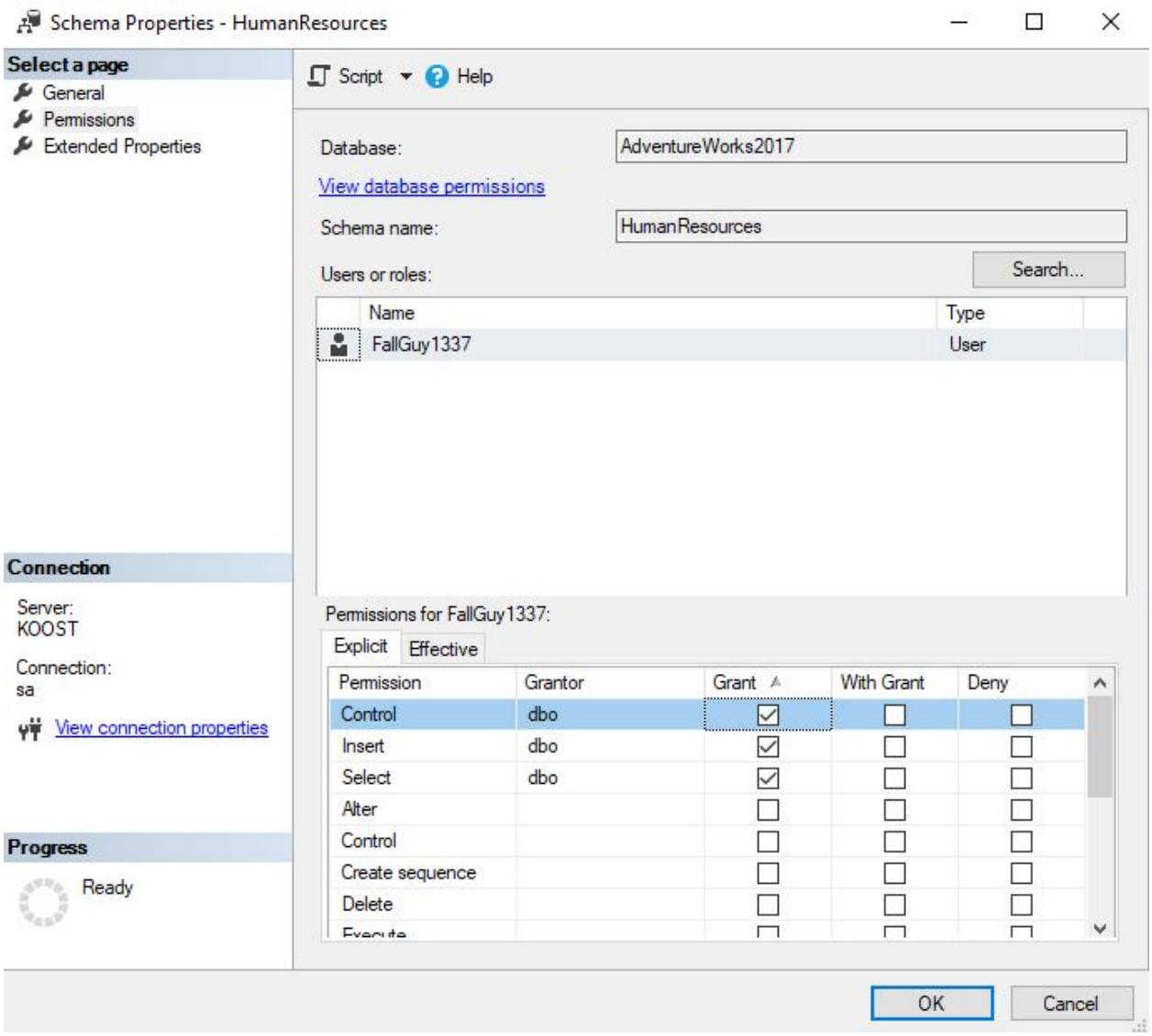
Tasks:

1. Install SQL Server 2017;
2. Register the server, selecting the SQL authentication type;
3. Create 3 login users with SQL authentication:
    a. The first user must have access to the ***HumanResources*** scheme from the ***AdventureWorks2017*** database. The user must have the possibility to read and edit the data from the tables of the respective scheme;
    b. User #2 must have access to read the data of the ***Sales*** scheme from the ***AdventureWorks2017*** database. At the same time, he must have the possibility to manage any object and its contents from the ***AdventureWorks2017*** database;
    c. User #3 must have the possibility to create new databases and to define its access to them.

Implementation:

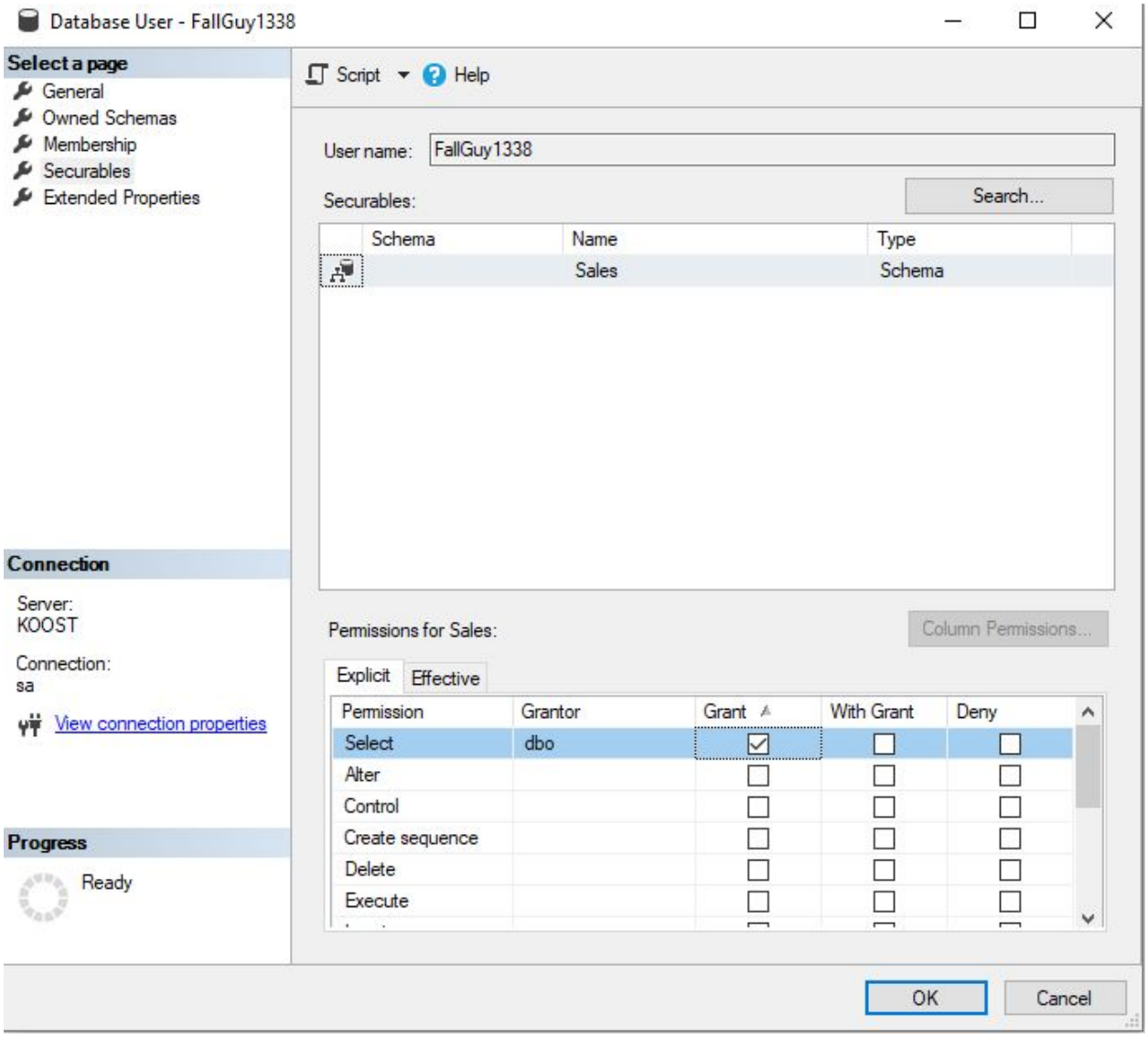
After we set up SQL Server 2017, I had to download the ***AdventureWorks2017*** database. After that we had to create user logins with SQL authentication and designate some roles and permissions.

The first user, FallGuy1337 should have access to the ***HumanResources*** scheme and the permission to read and edit the data from tables of the scheme mentioned above. To achieve that we access the database and its users, there we find our user, FallGuy1337 and access its properties, there we navigate to the User Mapping section and select the required scheme from the ***AdventureWorks2017*** database. Then we find our schema and go to its properties and grant the required permissions.

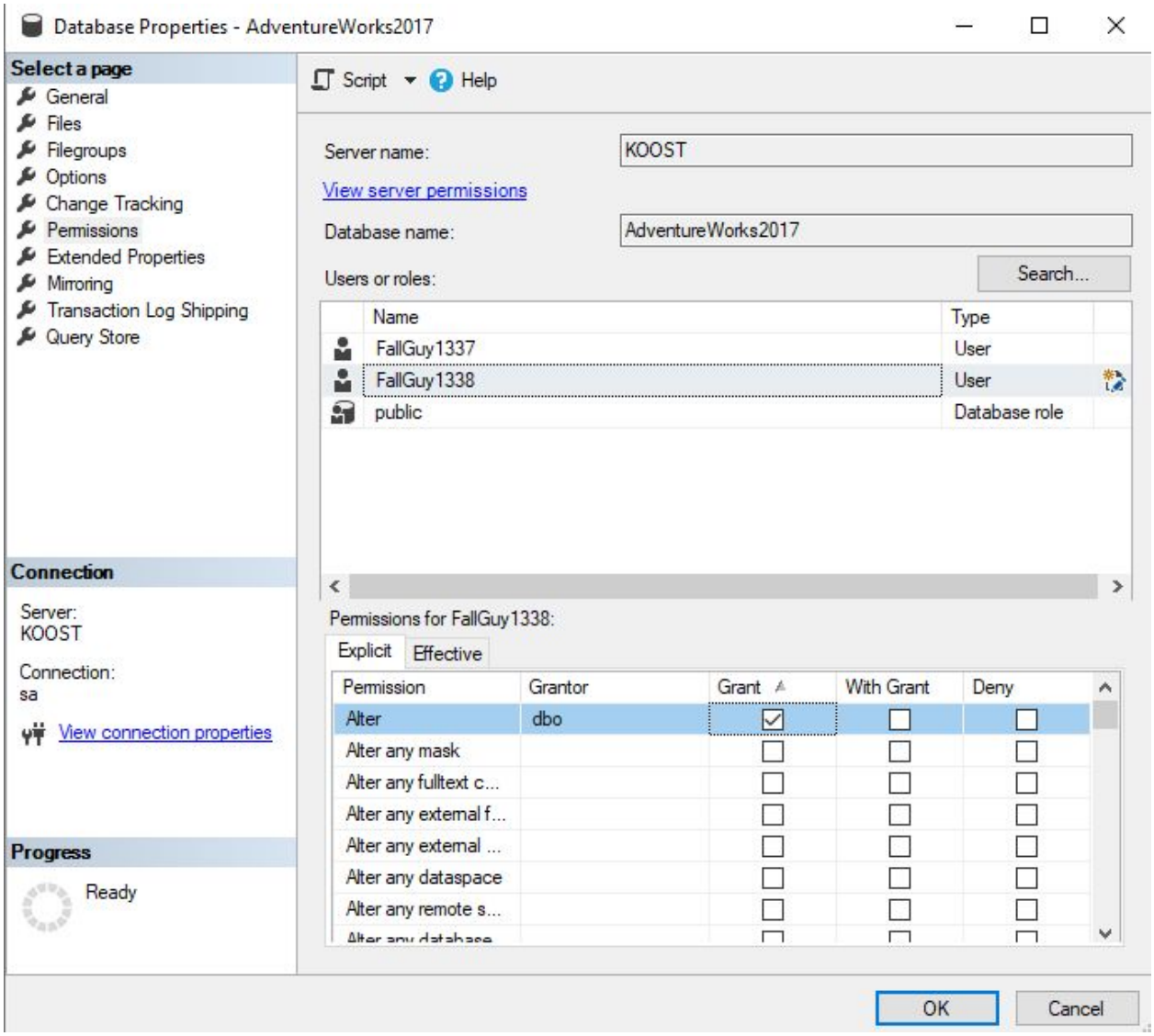


The second user, FallGuy1338 should have access to the ***Sales*** scheme and the permission to manage any object and its contents from the ***AdventureWorks2017*** database. To achieve that we access the properties tab of the user FallGuy1338, there we navigate to the User Mapping section and select the required scheme from the ***AdventureWorks2017*** database. Then we find our schema and go to its properties

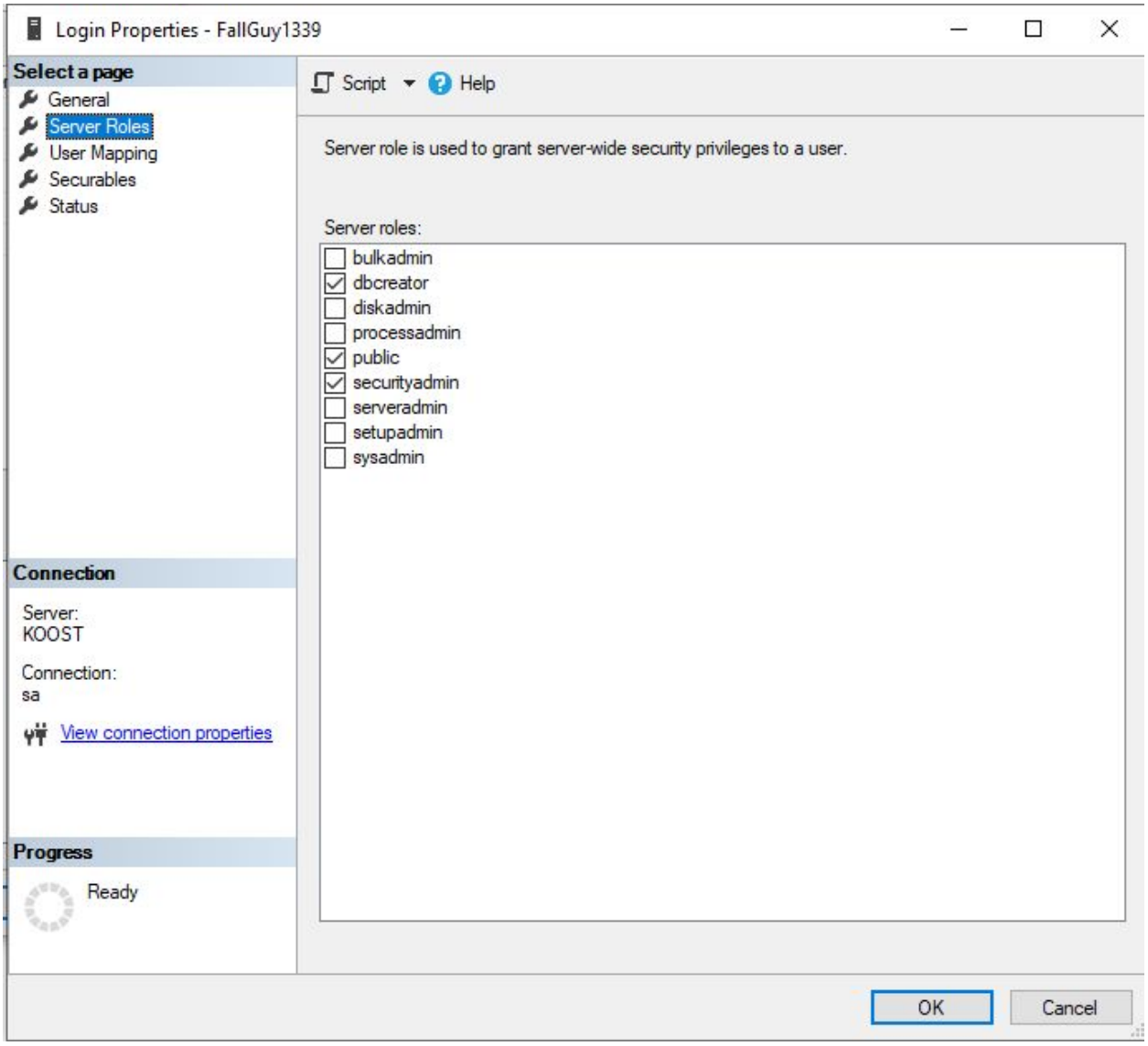
and grant the required permissions.



After that we go to our database properties and grant the permission to manage any object and its contents.



The third user, FallGuy1339 should have the possibility to create new databases and to define its access to them. To achieve that we access the properties tab of the user FallGuy1338, there we navigate to the Server Roles section and grant the dbcreator and securityadmin roles.



Conclusion:

During this laboratory work, besides installing the SQL Server and configuring it, I learned how to create users and grant them server roles, database-level and schema-level permissions.

P.S. As a side note, the conditions were very vaguely formulated.