



**MEDIWARE®**

**MW PHARM ++**

## Installation of Microsoft SQL Server 2014 Setup MwPharm++ database

<b>Title</b>	Installation of Microsoft SQL Server 2014 & Setup MwPharm++ DB
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## DOCUMENT HISTORY

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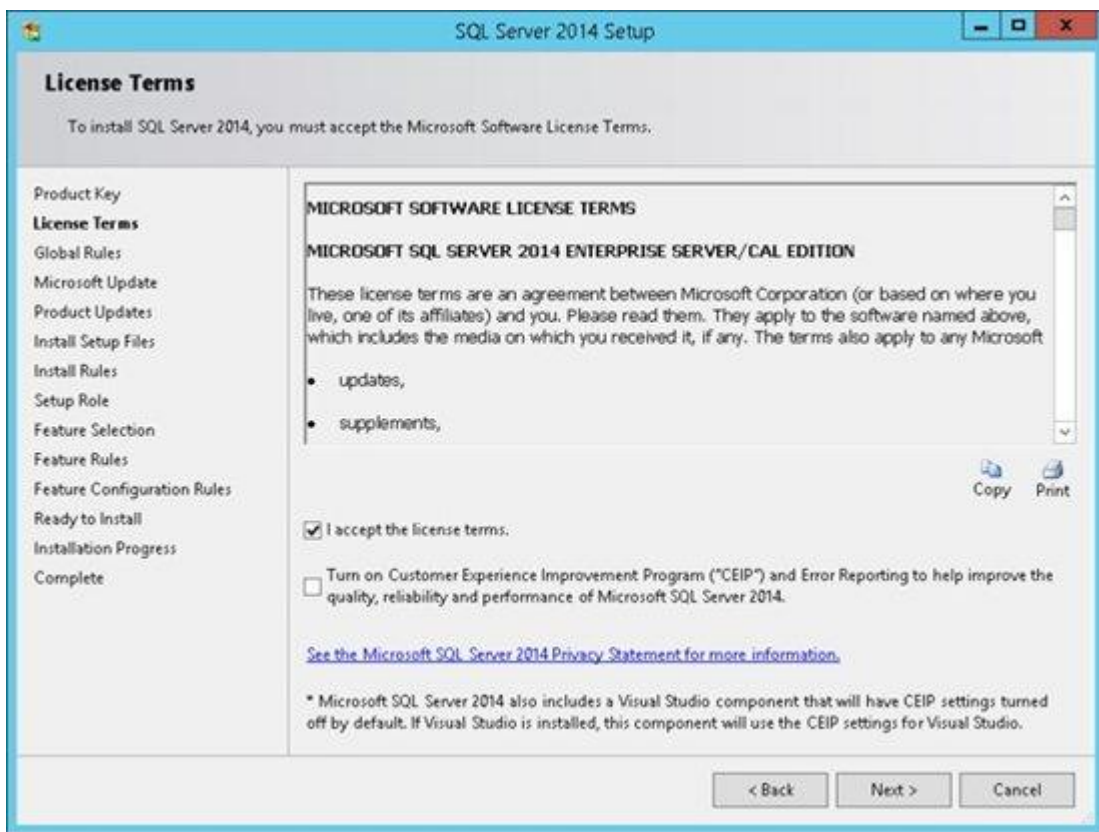
# 1 How to install the Microsoft SQL Server 2014 Express

## 1.1 Download the installer

Download SQL Server 2014 Management Studio Express with the latest Service Pack from Microsoft Download Center. Be sure to select the file that designed for your system (x86 or x64). In this example, I'm going to download the **SQLEXPRADV\_x64\_ENU.exe** for my 64-bit system. Installer can be downloaded from Microsoft website <https://www.microsoft.com/en-us/download/details.aspx?id=42299> or from Mediware website.

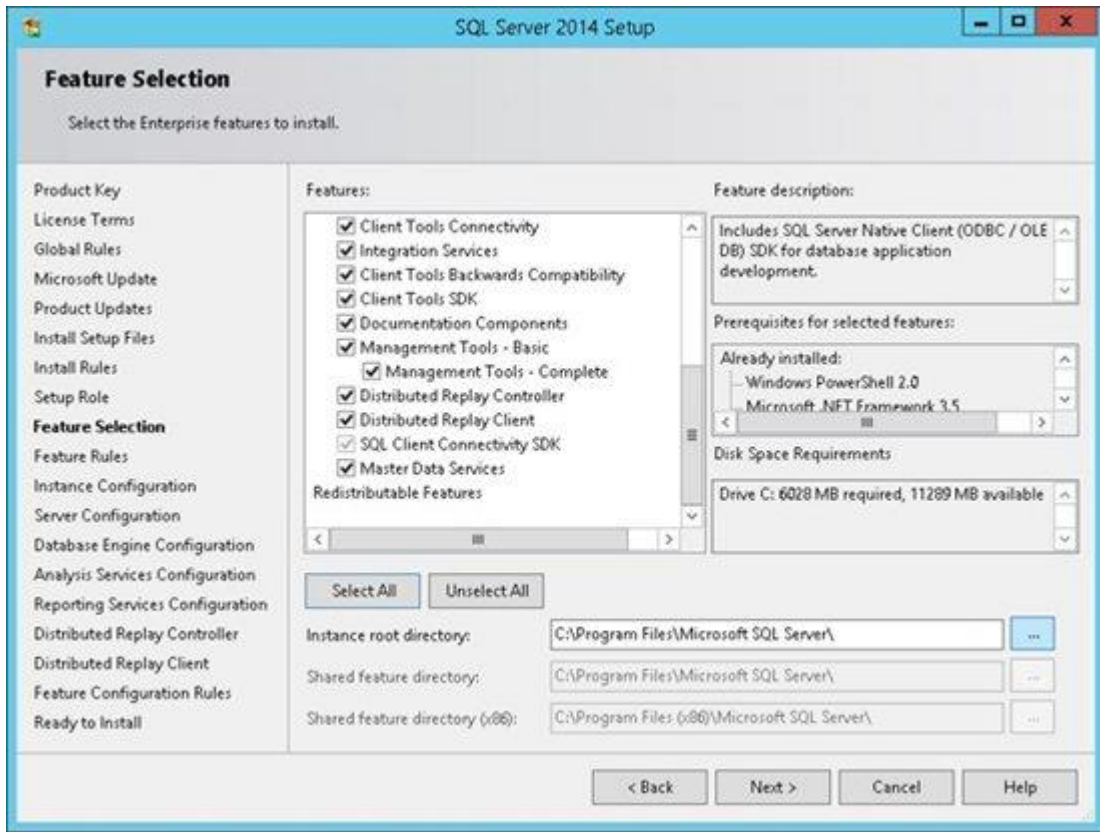
## 1.2 Install the new SQL server stand-alone installation

- 1 To begin, launch the install program and choose the top option to install a new stand-alone installation.



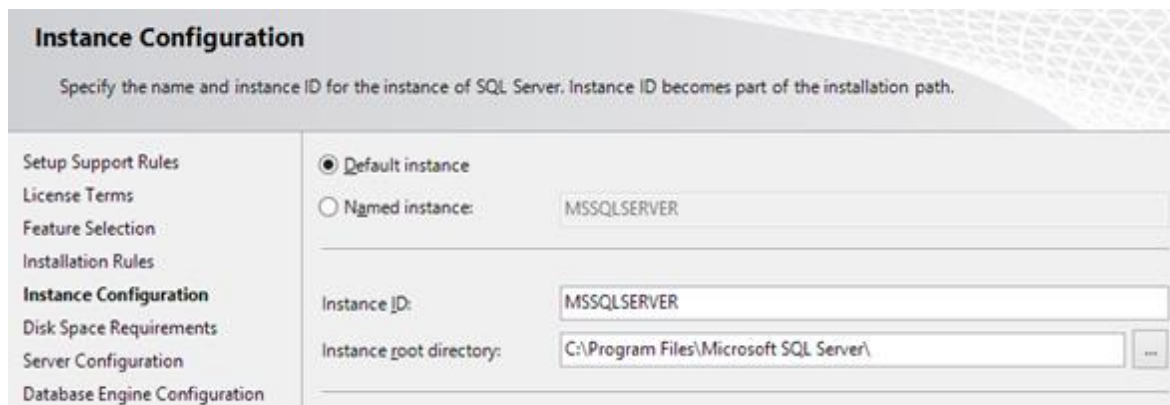
Read and accept the license agreement and click next. At this point you can

choose the features that you want to install. You can also change the install folder if you do not want to install to the default location.

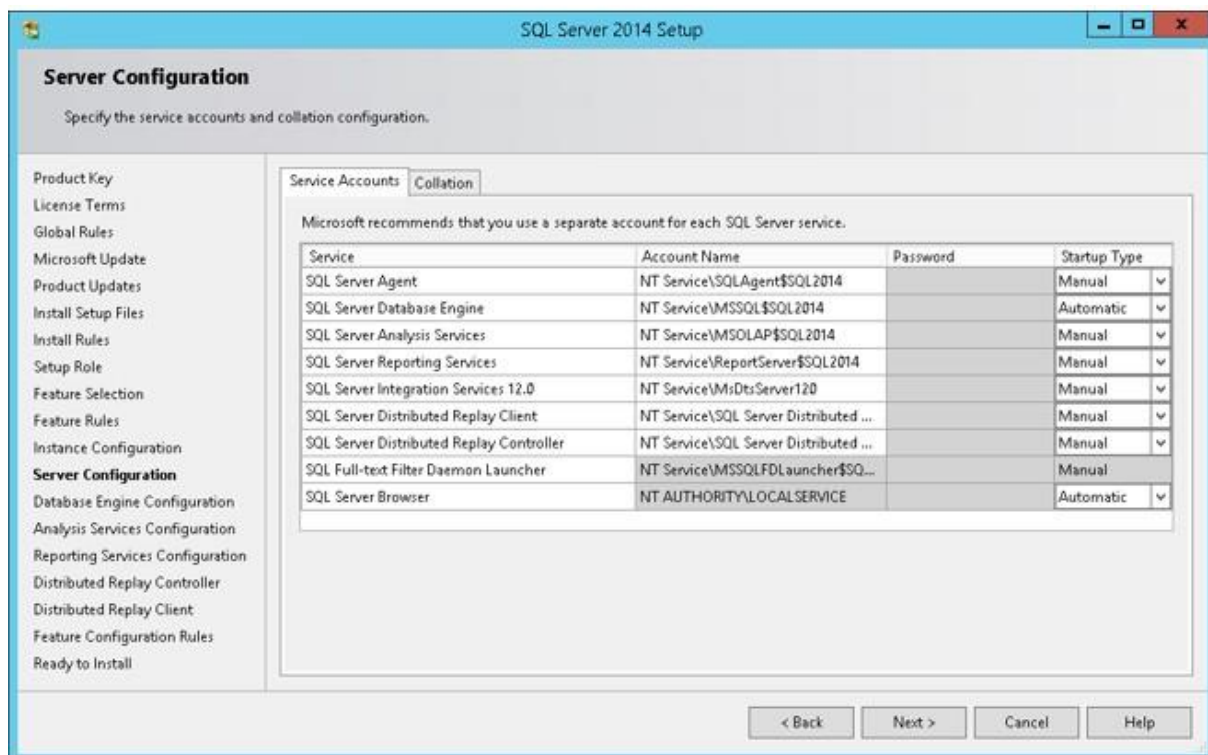


Now you can configure the SQL instance. If this is the first instance of SQL Server on your computer, you probably want to change this setting to Default instance. If you already have another instance of SQL Server, you will want to

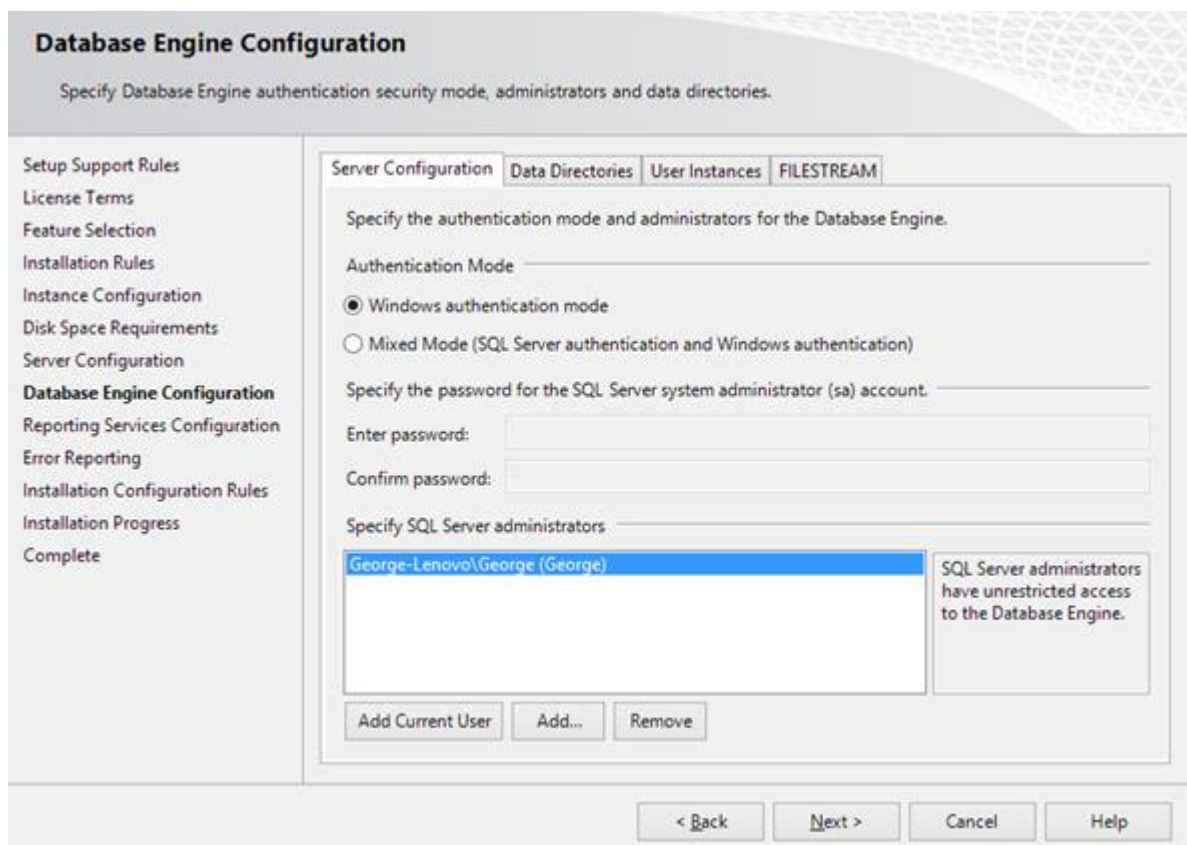
use Named Instance and give it a name.



The next step is server configuration. From here you can change the Windows services associated with this instance of SQL Server. You can keep the defaults here unless you want to specify different user accounts for the services. You can also change the default collation settings.



Now we come to the Database Engine configuration. On the Server Configuration tab you can select whether SQL Server will only authenticate using Windows accounts or you can choose Mixed Mode which will allow Windows accounts and SQL accounts. You can also add or remove accounts that will be SQL administrators.

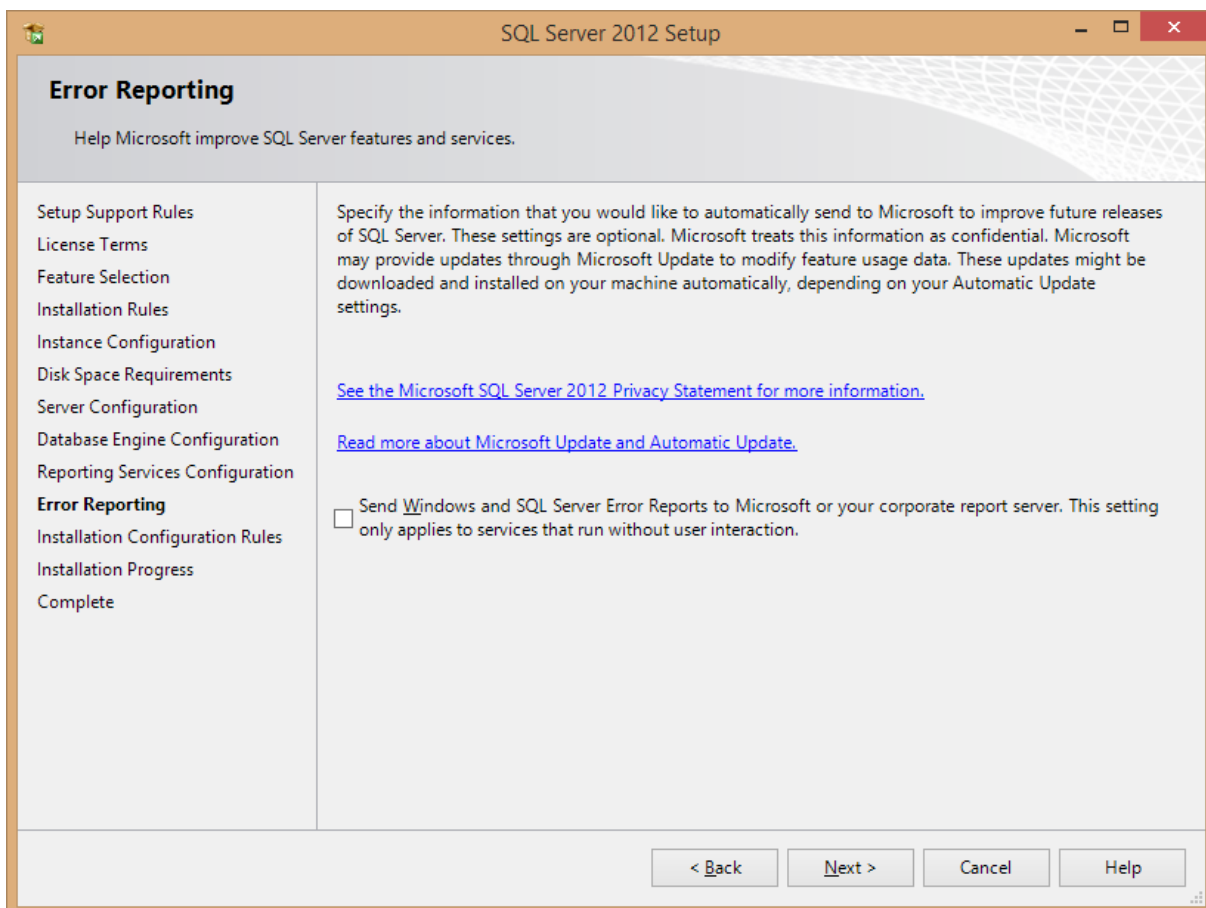
A screenshot of the "Database Engine Configuration" wizard. The window title is "Database Engine Configuration" and the subtitle is "Specify Database Engine authentication security mode, administrators and data directories." The left sidebar contains a list of steps: Setup Support Rules, License Terms, Feature Selection, Installation Rules, Instance Configuration, Disk Space Requirements, Server Configuration, Database Engine Configuration (highlighted), Reporting Services Configuration, Error Reporting, Installation Configuration Rules, Installation Progress, and Complete. The main area has four tabs: Server Configuration (selected), Data Directories, User Instances, and FILESTREAM. Below the tabs, the text reads "Specify the authentication mode and administrators for the Database Engine." There are two radio buttons for "Authentication Mode": "Windows authentication mode" (selected) and "Mixed Mode (SQL Server authentication and Windows authentication)". Below this is a section for "Specify the password for the SQL Server system administrator (sa) account." with "Enter password:" and "Confirm password:" text boxes. The "Specify SQL Server administrators" section contains a list box with one entry: "George-Lenovo\George (George)". To the right of the list box is a text box containing the message: "SQL Server administrators have unrestricted access to the Database Engine." Below the list box are three buttons: "Add Current User", "Add...", and "Remove". At the bottom of the wizard are four buttons: "< Back", "Next >", "Cancel", and "Help".

On the Data Directories tab you can change the locations of various files that SQL will use. Depending on your server configuration and the load that will be put on SQL, you may want to put the database and log folders on separate drives. For most people, you can leave the default values.

The next step configures Reporting Services. Set this to Install Only if you don't need reporting services or may need them in the future. You can always go back and configure it later.

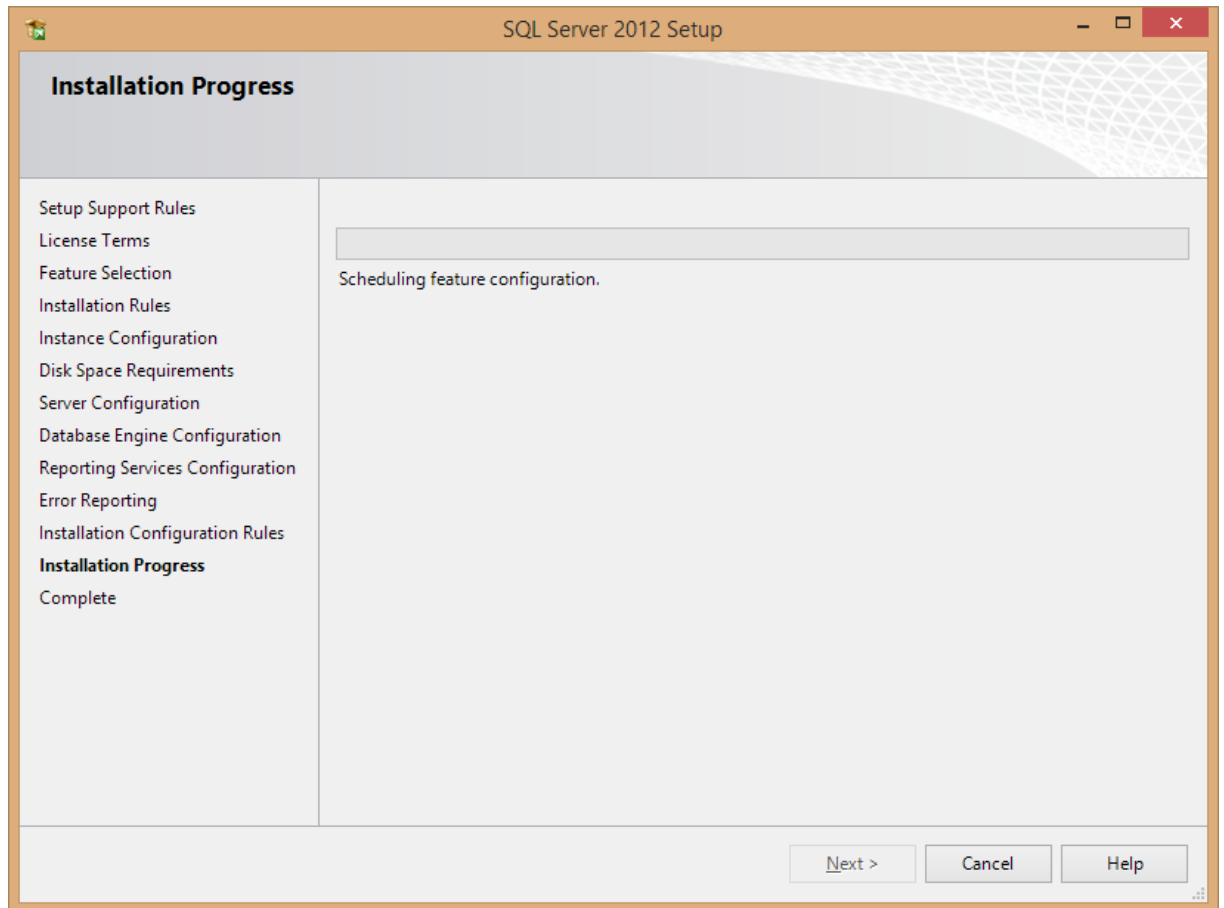


On the Error Reporting step, you can choose whether or not you would like to send error reports to Microsoft to help them improve future releases of SQL server.





At this point, SQL server will install on your computer. This could take a while to complete depending on the computer you are using.

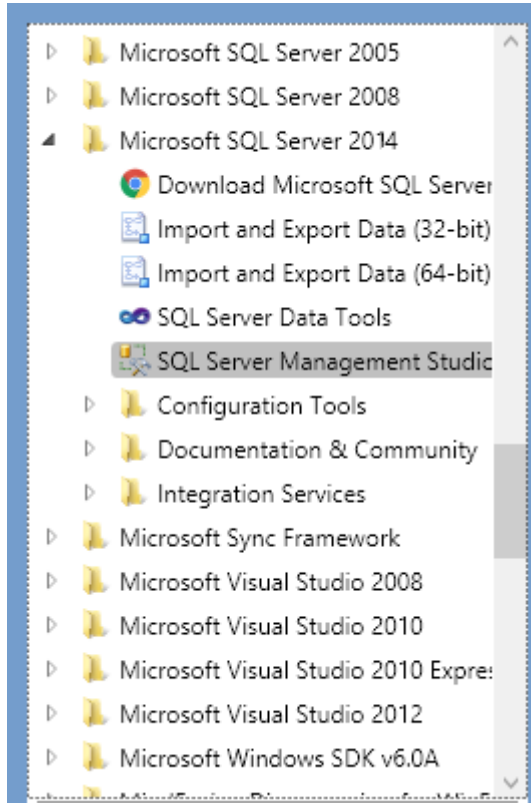


If everything completed successfully, you can close the window.

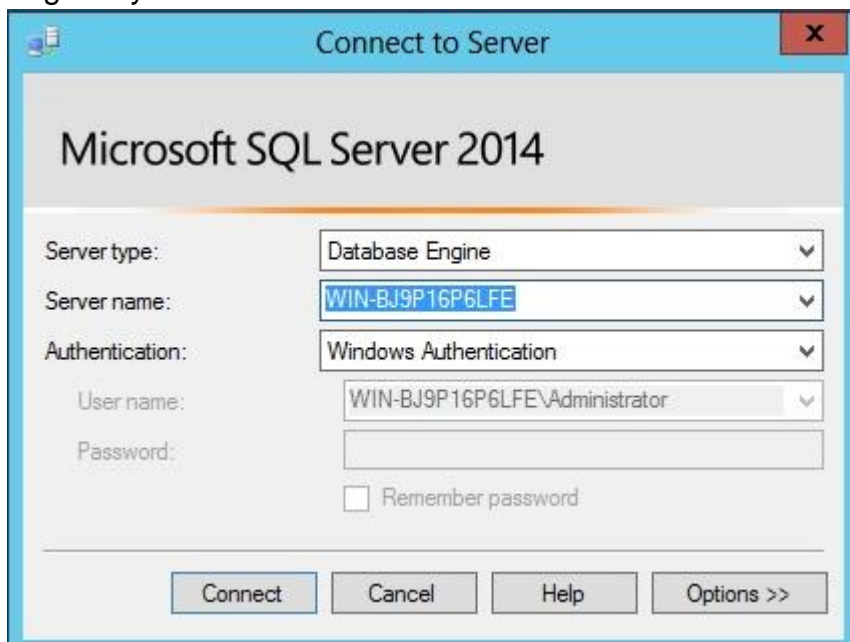
## 2 Creating a SQL Server Database

## 2.1 Open Microsoft SQL Server Management Studio

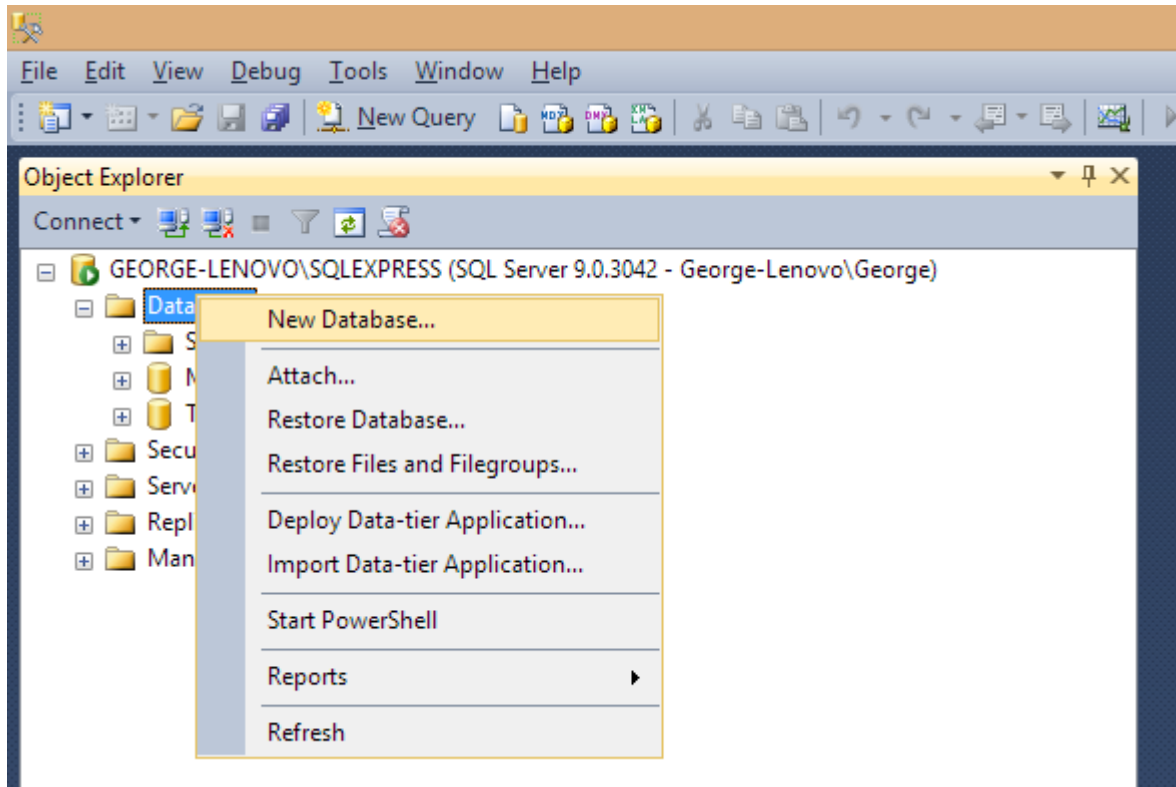
Use start menu and open SQL Server Management Studio



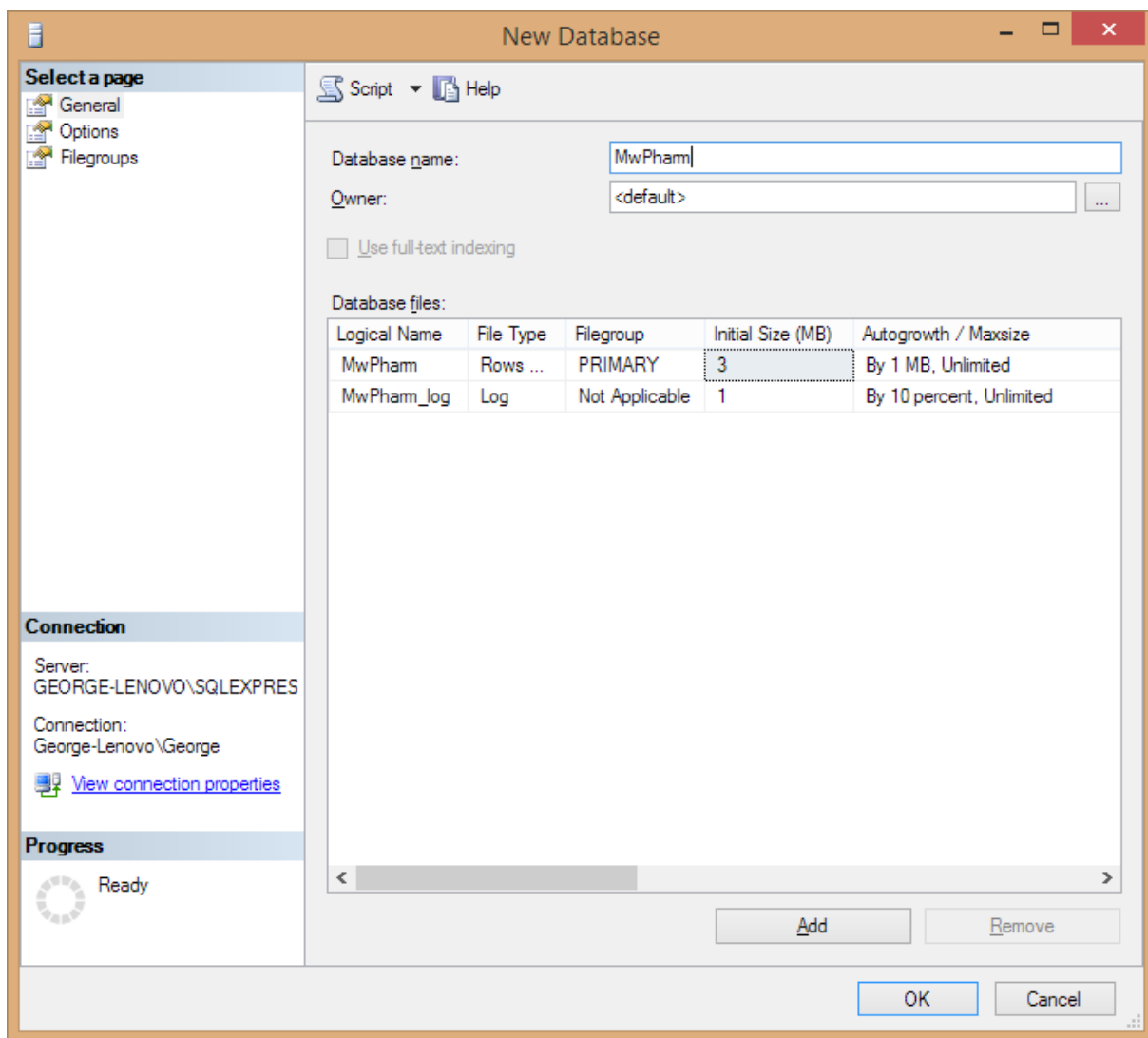
Log into your SQL Server



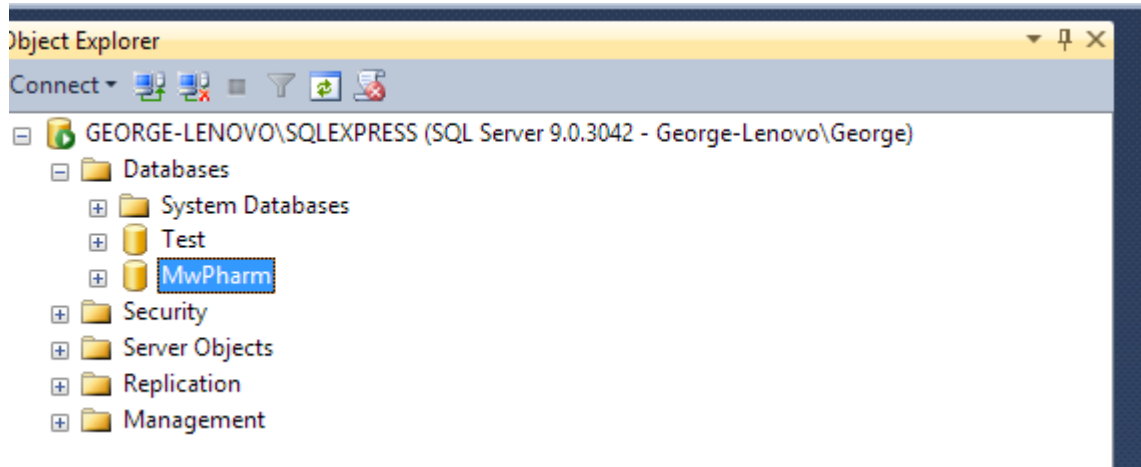
After launching the software expand the Databases folder. Right-click on the Databases folder and select „New Database“ from the contextual menu.
















In the dialog that opens change the database name to “MwPharm“. Click OK to create the database.



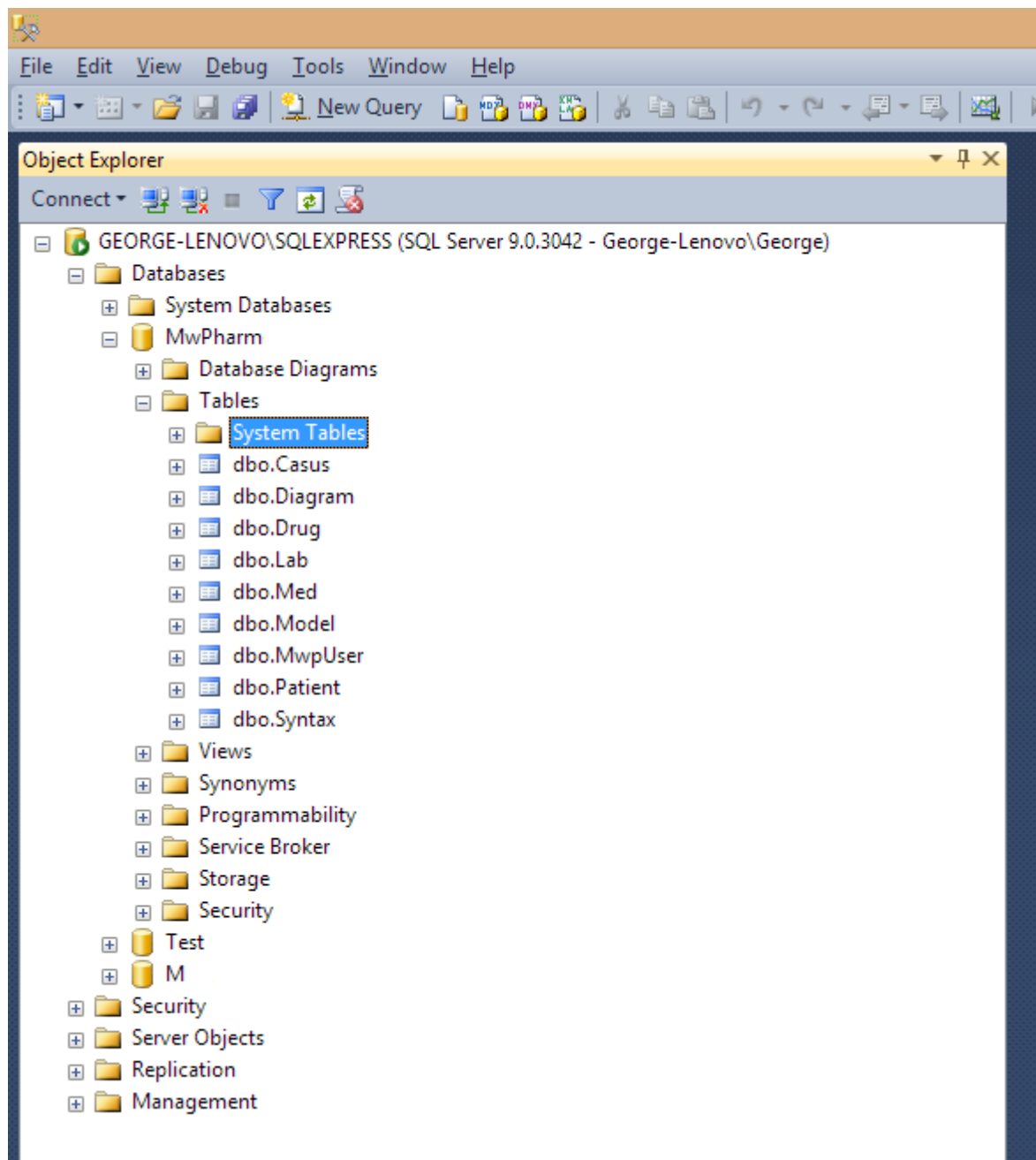
The new database will now appear in the list of databases.



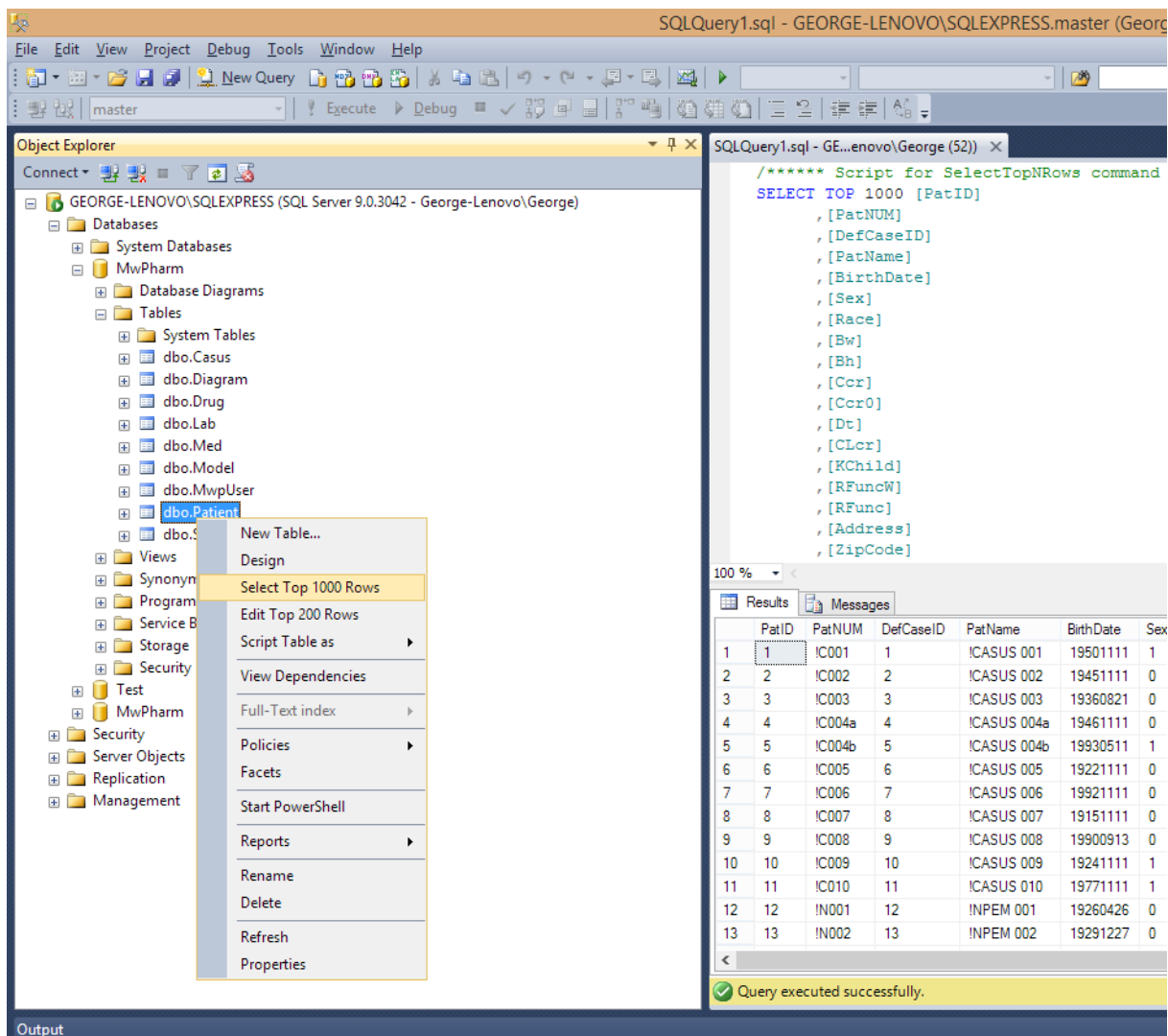
Execute the SQL scripts that will create the tables in the database „MwPharm“

	1-Drop	11/11/2015 22:40	Soubor SQL	1 kB
	2-Create	12/11/2015 09:02	Soubor SQL	4 kB
	3-Constraint	11/11/2015 22:57	Soubor SQL	2 kB
	4-Index	11/11/2015 23:16	Soubor SQL	1 kB
	5A-Syntax	12/11/2015 01:37	Soubor SQL	1 kB
	5B-Patient	12/11/2015 10:01	Soubor SQL	15 kB
	5C-Drug	12/11/2015 10:01	Soubor SQL	29 kB
	5D-Diagram	12/11/2015 10:02	Soubor SQL	10 kB
	5E-MwpUser	12/11/2015 10:02	Soubor SQL	1 kB
	5F-Model	12/11/2015 10:02	Soubor SQL	1,484 kB
	5G-Casus	12/11/2015 10:03	Soubor SQL	209 kB
	MwPharm++.bak	12/11/2015 12:28	Soubor BAK	5,784 kB
	Readme	12/11/2015 12:26	Textový dokument	1 kB

The new tables will now appear in the list of tables in the MwPharm database.



Check if the tables contain the default data and are not empty



The screenshot shows the SQL Server Enterprise Manager interface. In the Object Explorer, the 'dbo.Patient' table is selected, and a context menu is open with 'Select Top 1000 Rows' highlighted. The SQL query editor contains the following script:

```

/***** Script for SelectTopNRRows command
SELECT TOP 1000 [PatID]
, [PatNUM]
, [DefCaseID]
, [PatName]
, [BirthDate]
, [Sex]
, [Race]
, [Bw]
, [Bh]
, [Ccr]
, [Ccr0]
, [Dt]
, [CLer]
, [KChild]
, [RFuncW]
, [RFunc]
, [Address]
, [ZipCode]

```

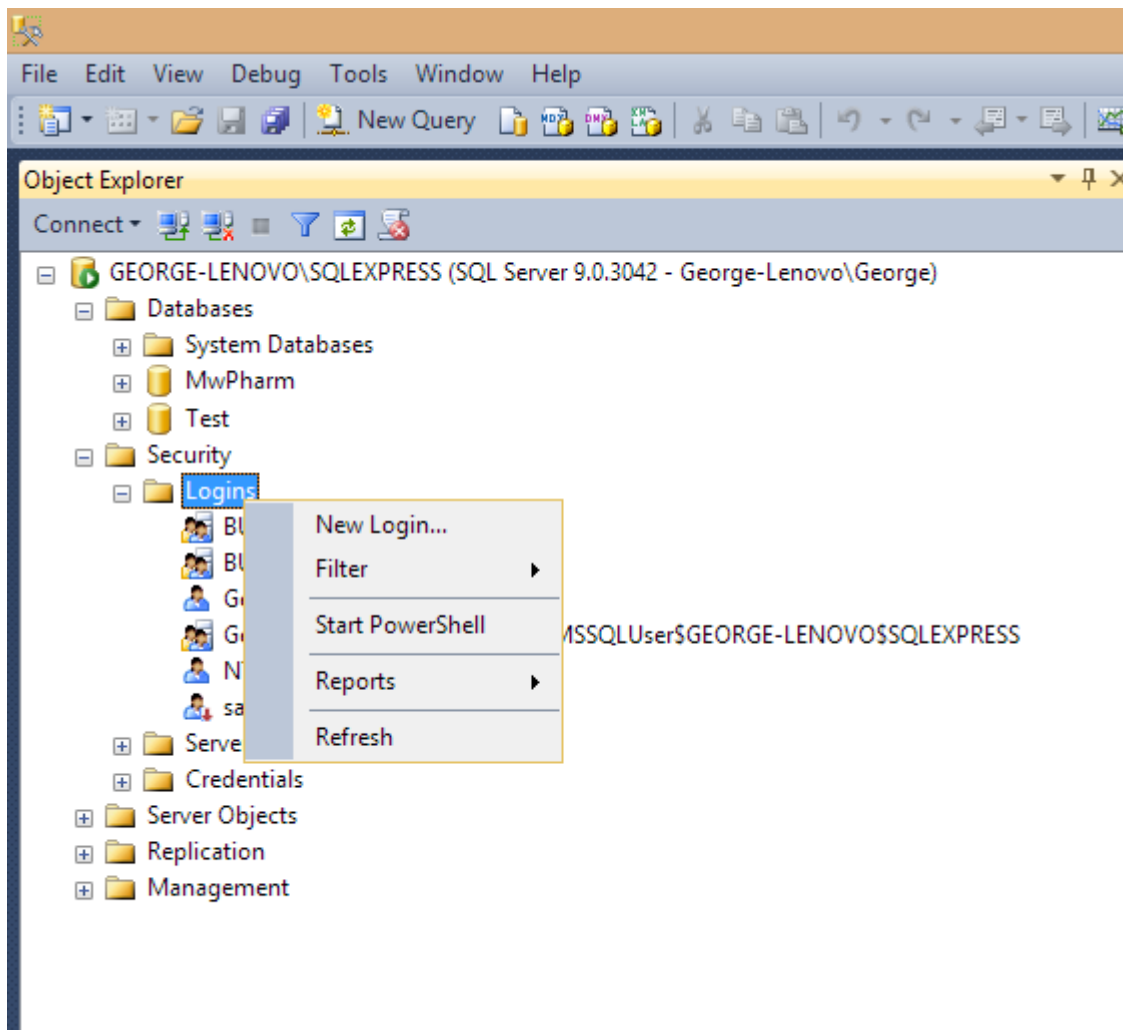
The Results pane displays the following data:

PatID	PatNUM	DefCaseID	PatName	BirthDate	Sex	
1	1	IC001	1	ICASUS 001	19501111	1
2	2	IC002	2	ICASUS 002	19451111	0
3	3	IC003	3	ICASUS 003	19360821	0
4	4	IC004a	4	ICASUS 004a	19461111	0
5	5	IC004b	5	ICASUS 004b	19930511	1
6	6	IC005	6	ICASUS 005	19221111	0
7	7	IC006	7	ICASUS 006	19921111	0
8	8	IC007	8	ICASUS 007	19151111	0
9	9	IC008	9	ICASUS 008	19900913	0
10	10	IC009	10	ICASUS 009	19241111	1
11	11	IC010	11	ICASUS 010	19771111	1
12	12	IN001	12	INPEM 001	19260426	0
13	13	IN002	13	INPEM 002	19291227	0

The Output pane at the bottom shows the message: "Query executed successfully."

### 3 Adding a SQL Server User

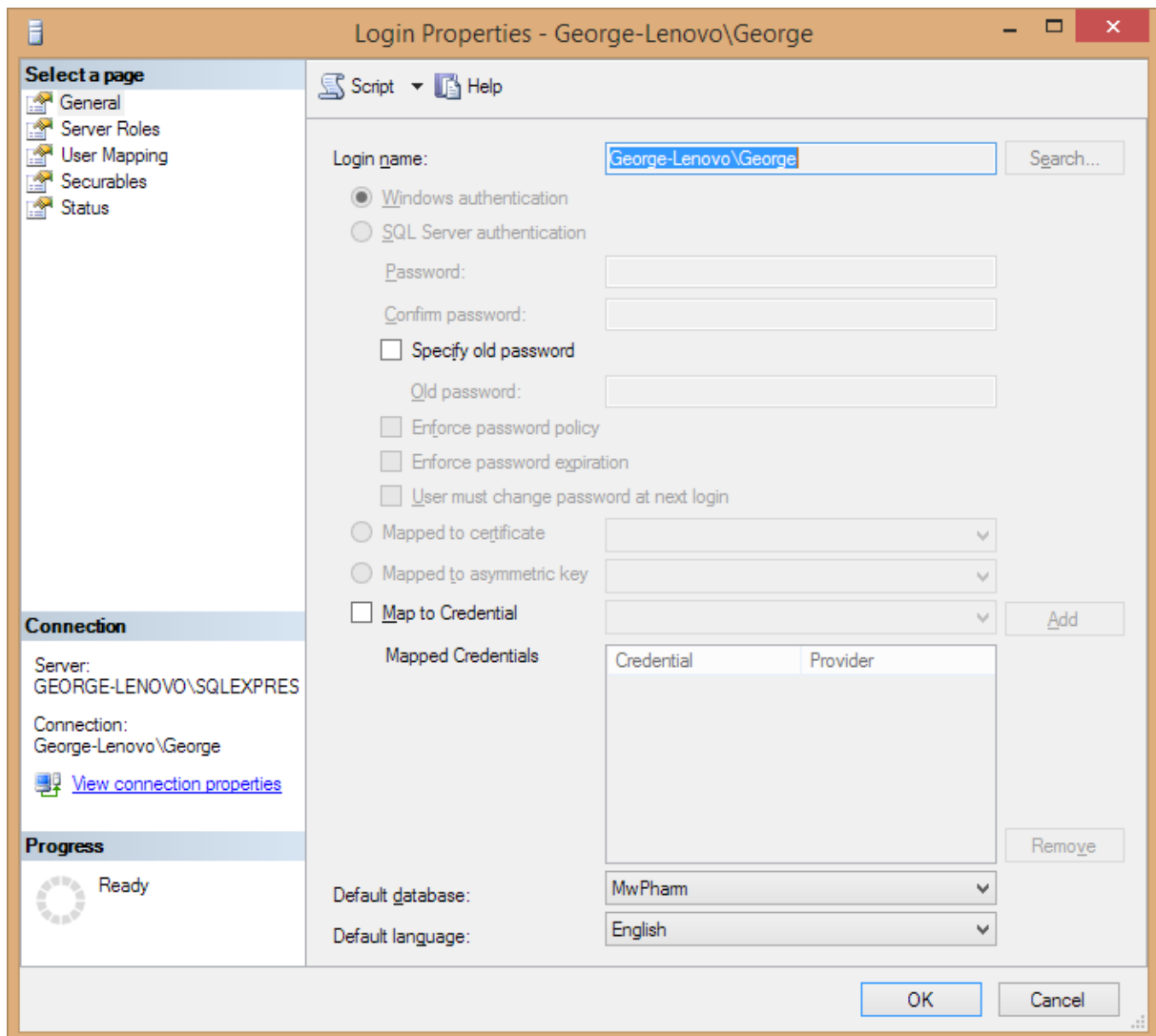
Expand the Security -> Logins folder to show a list of users.





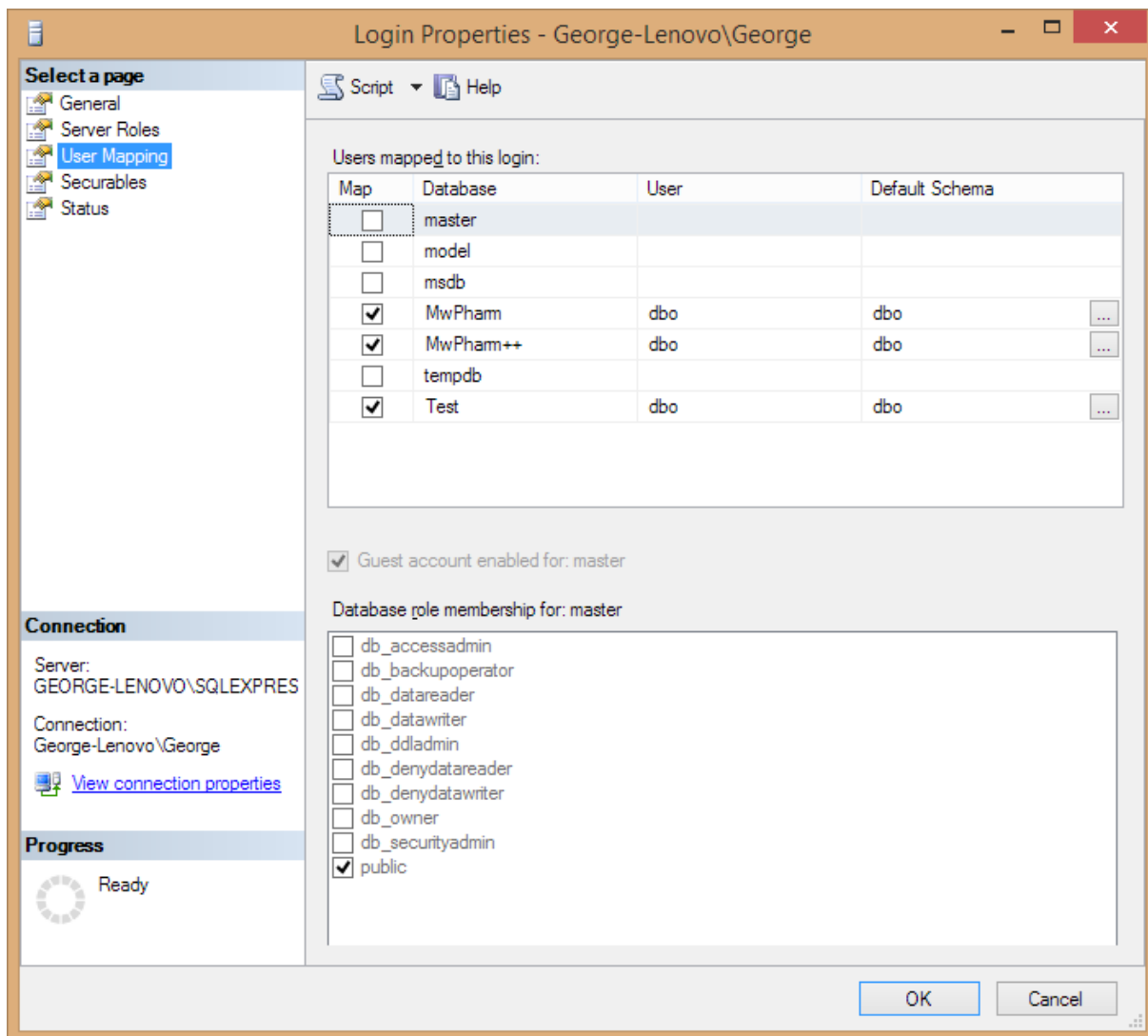
In the dialog that appears do the following:

- 1) Set the login name. This example uses **George** but you could also choose something like **mwpharm\_user**
- 2) Set the default database to **MwPharm**



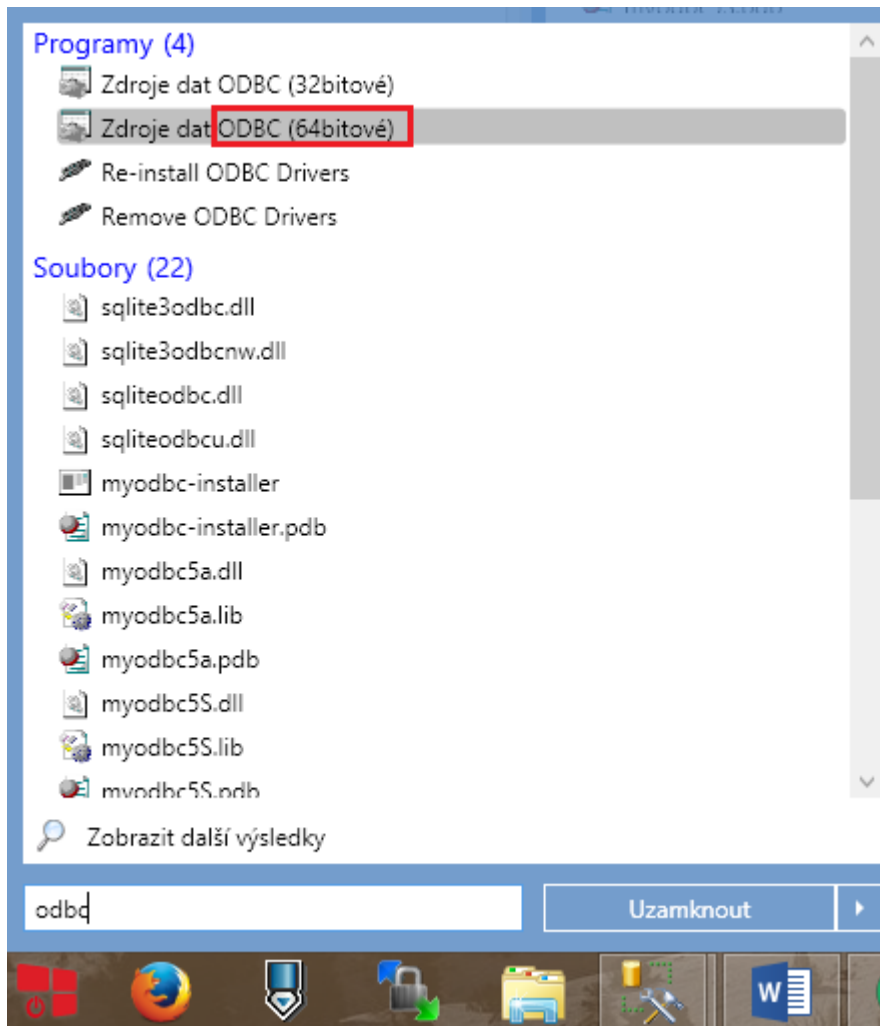
Now switch to **Server Roles** and make sure that **public** and **sysadmin** are checked.

Now switch to **User Mapping** and make sure that **User has access to Database**



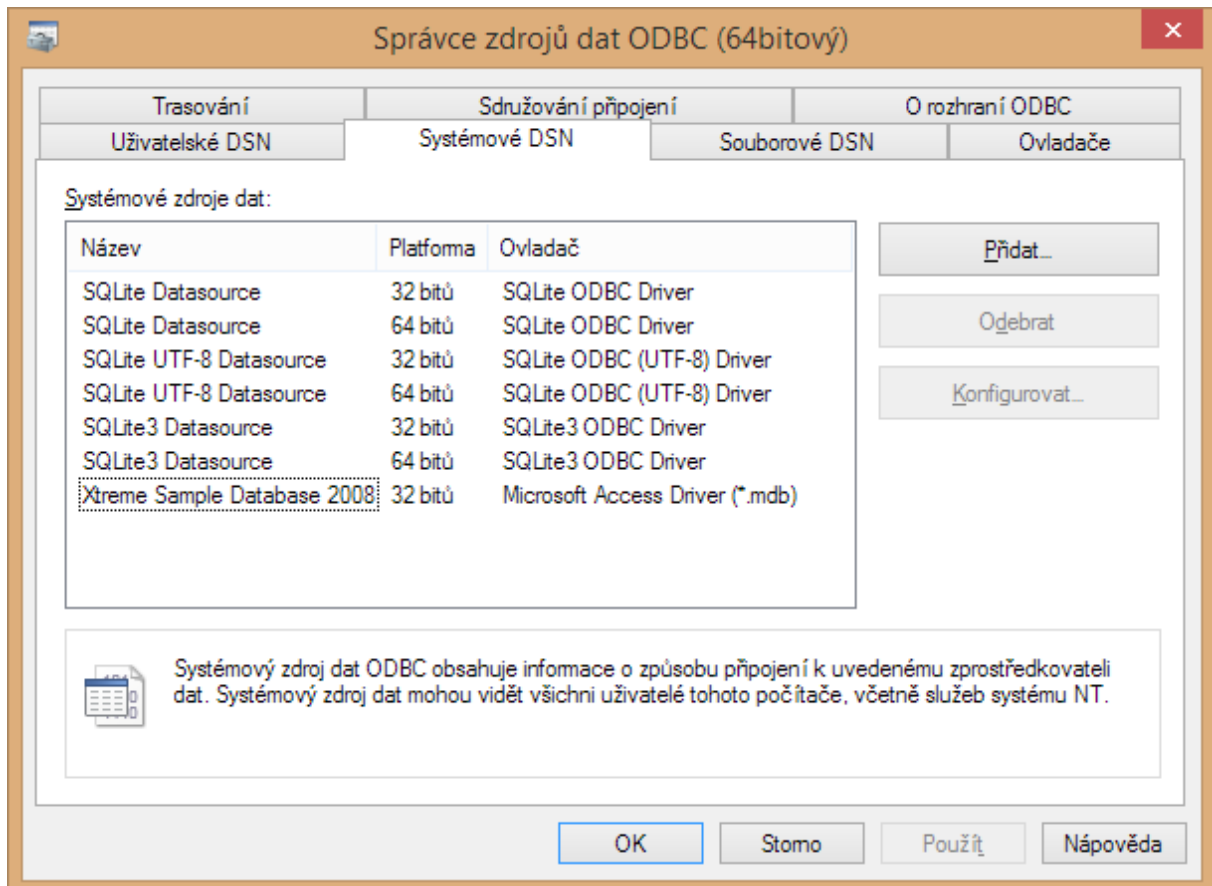
## 4 Creating ODBC Connections on Windows

Within the Start Menu you will find a shortcut to **Data Sources (ODBC)**. Launch this application.



After the application finishes launching click on the **System DSN** tab. You can install a DSN that is available to any user that logs into the computer from here.

Click on the **Add** button.

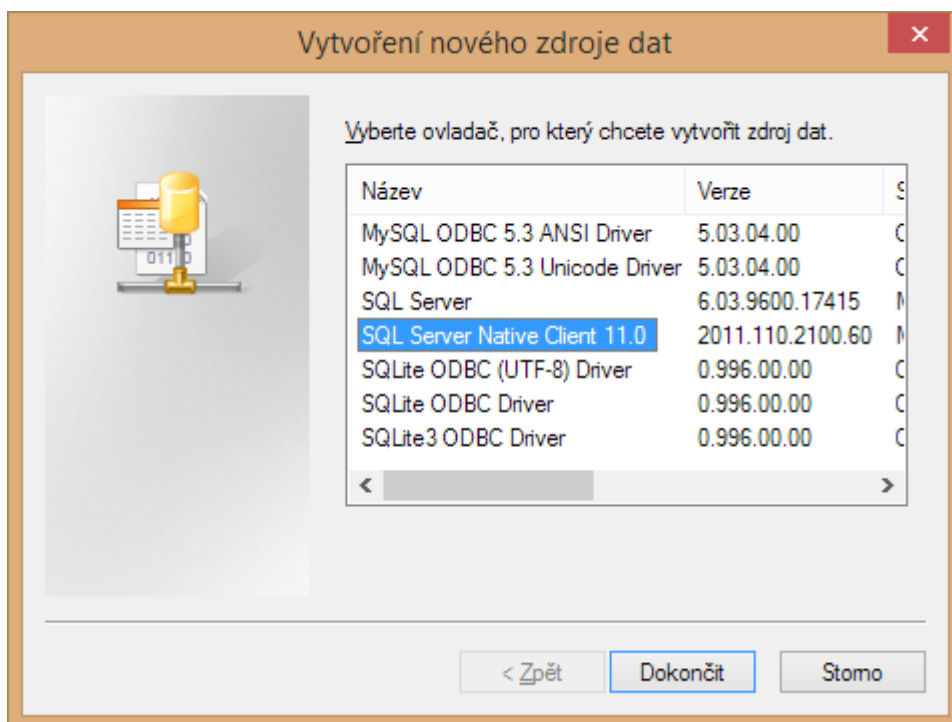


If you are using SQL Server 2014 or later than select the **SQL Server Native Client 11.0** driver

Click **Finish**.

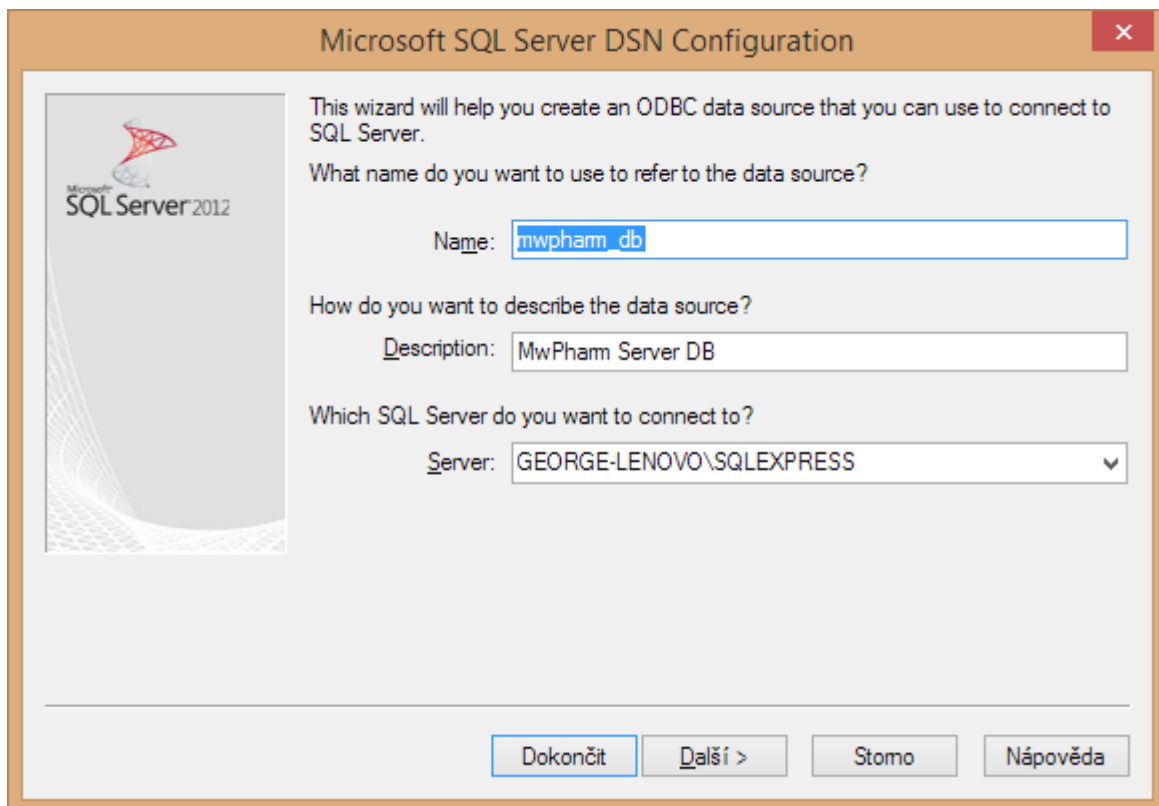
If SQL Server Native Client 11.0 does not appear in your list then you need to download and install it from the Microsoft website. **Alternatively can be used the SQL Server ODBC** driver

*Download and run the **Microsoft SQL Server 2014 Native Client** installer to install the SQL Server Native Client 11.0 ODBC driver. After running the installer start over with this lesson.*



In the next dialog that appears enter the data source name – for example **mwpharm\_db** for

the name and specify the location of the database server.

A screenshot of the "Microsoft SQL Server DSN Configuration" wizard. The window title is "Microsoft SQL Server DSN Configuration" with a close button (X) in the top right corner. On the left side, there is a logo for "Microsoft SQL Server 2012". The main area contains the following text and fields:

This wizard will help you create an ODBC data source that you can use to connect to SQL Server.

What name do you want to use to refer to the data source?

Name:

How do you want to describe the data source?

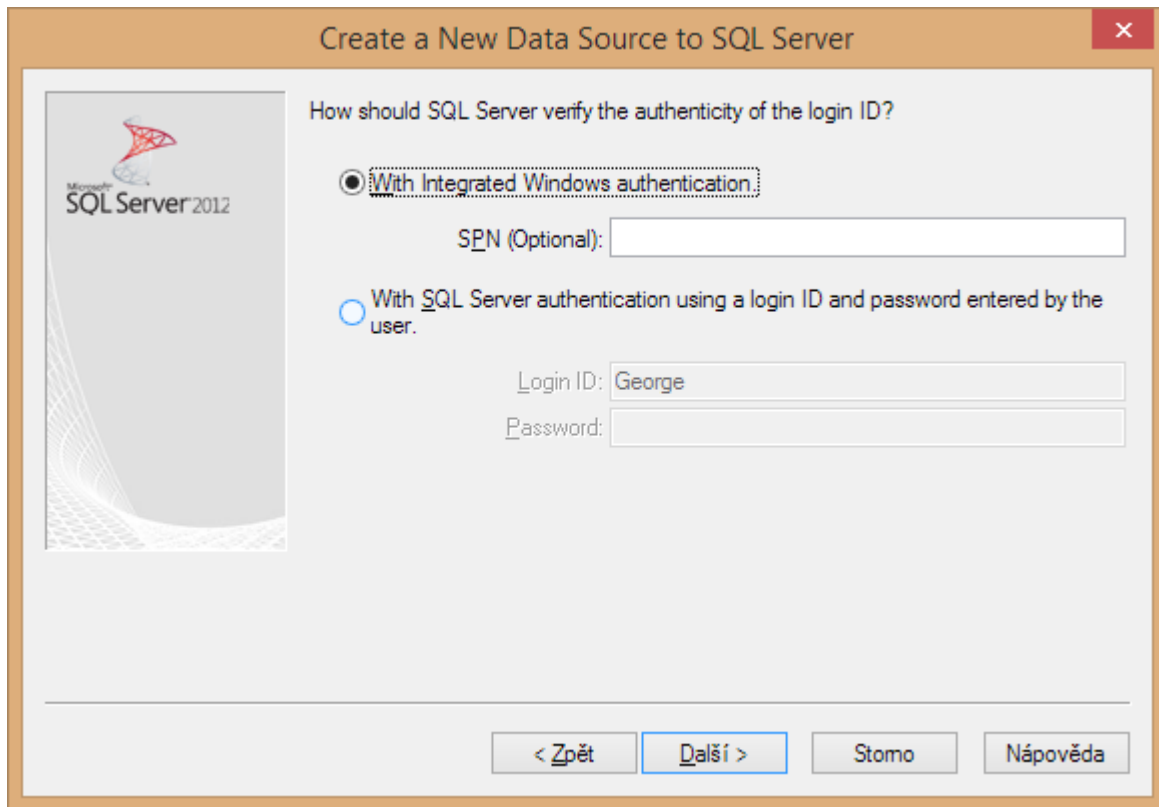
Description:

Which SQL Server do you want to connect to?

Server:

At the bottom of the window, there are four buttons: "Dokončit" (highlighted in blue), "Další >", "Storno", and "Nápověda".

On the next select the SQL Server authenticity. You can also use the username and password for the user you created in the previous lesson if you want to use authenticity with username and password. Be sure that this user has access to the MwPharm DB.



Microsoft SQL Server 2012

How should SQL Server verify the authenticity of the login ID?

With Integrated Windows authentication.

SPN (Optional):

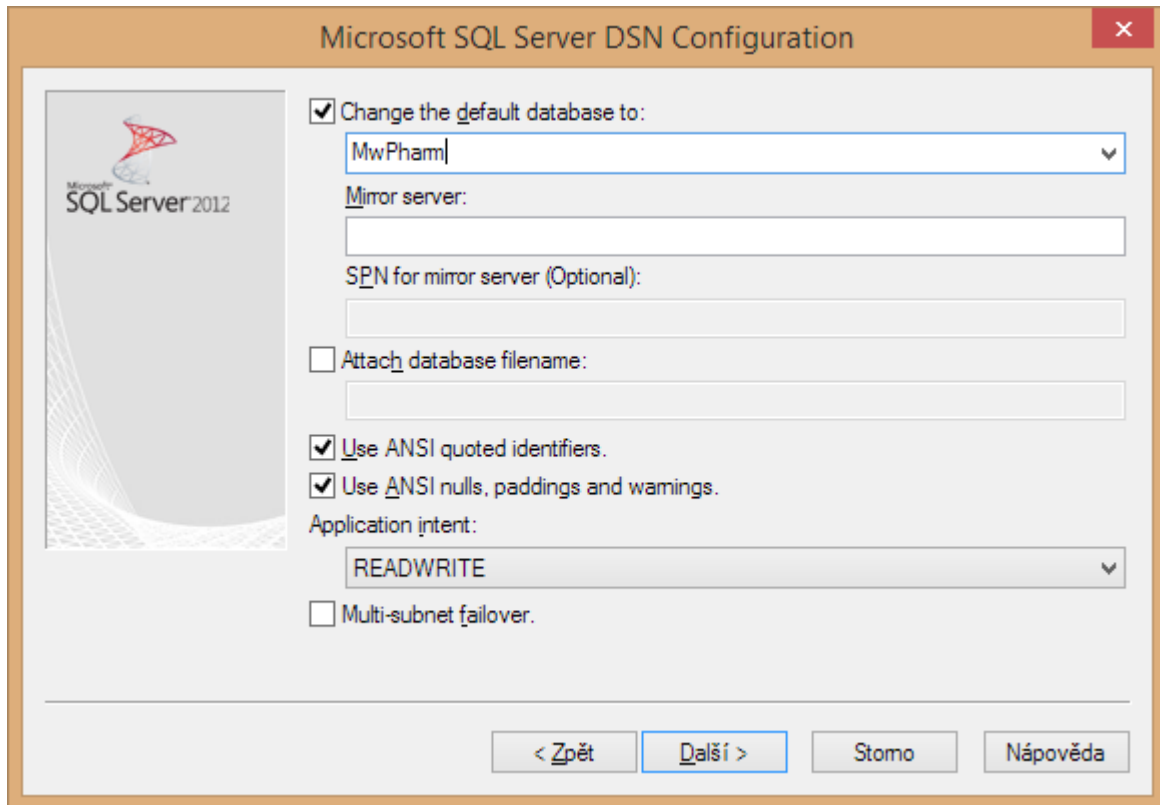
With SQL Server authentication using a login ID and password entered by the user.

Login ID:

Password:

< Zpět    Další >    Storno    Nápověda

Change the default database to the MwPharm database.



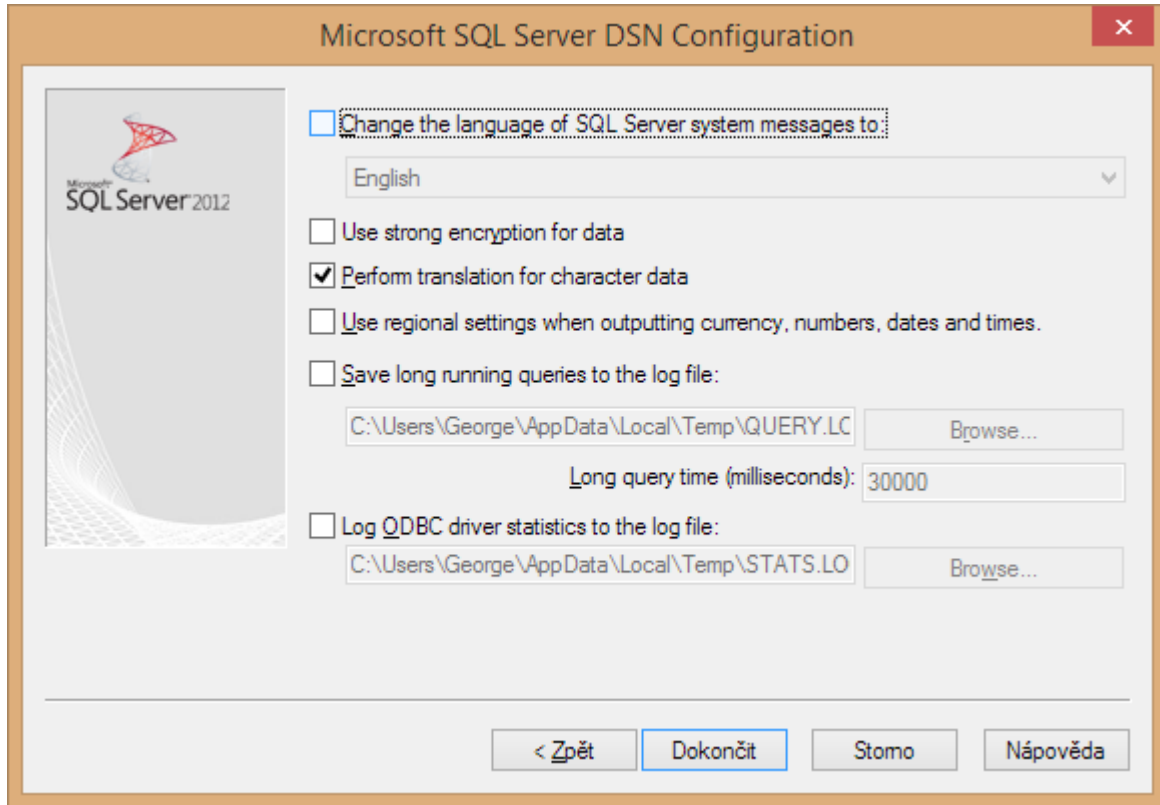
The screenshot shows the "Microsoft SQL Server DSN Configuration" dialog box. On the left is a preview of the Microsoft SQL Server 2012 logo. The main area contains the following settings:

- Change the default database to:
  - MwPharm
- Mirror server:
  -
- SPN for mirror server (Optional):
  -
- Attach database filename:
  -
- Use ANSI quoted identifiers.
- Use ANSI nulls, paddings and warnings.
- Application intent:
  - READWRITE
- Multi-subnet failover.

At the bottom, there are four buttons: "< Zpět", "Další >", "Storno", and "Nápověda".

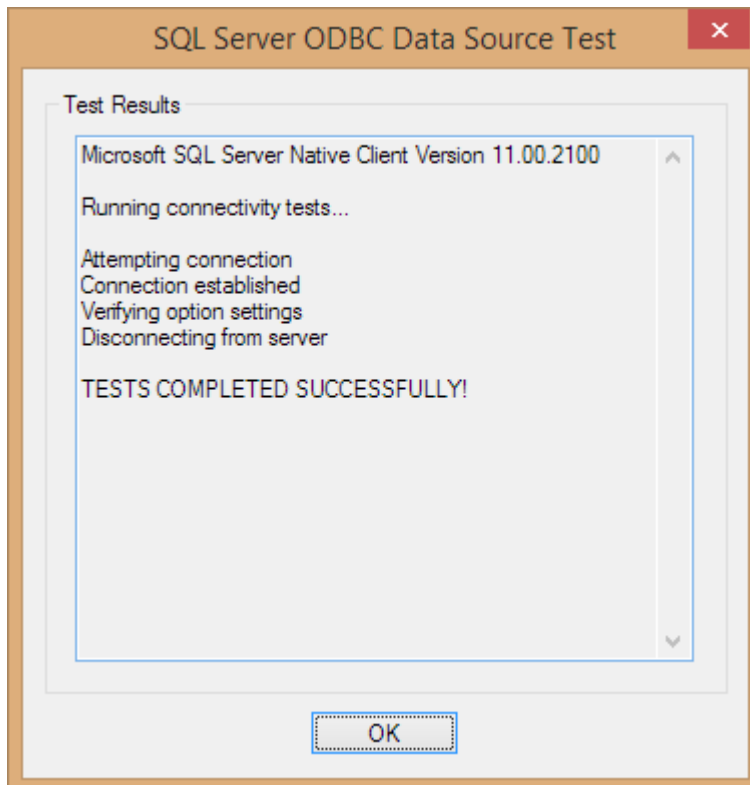


Confirm that your dialog has the same settings as shown here then click **Finish**.



In the final dialog click the **Test Data Source** button to confirm that you can connect to SQL Server.

If the test is successful you can click **OK** to continue. If the test is not successful then go back and make the necessary changes based on the error message and try the test again.



You should now have a new System DSN in the System DSN list.

Set new Connection string in settings of MwPharm++.

#### ***DATABASE SETTINGS***

Connection

`dsn=mwpharm_db`