



TECHINICAL UNIVERSITY OF MOLDOVA
FACTULY OF COMPUTERS, INFORMATICS AND MICROELECTRONICS

Report
On Databases and Knowledge
Lab 2

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Task 1

Creai o baza de date plasata fizic in mapa MyDocuments/Data, fizind o crestere a fisierului primar a bazei de 5MB cu limita de crestere de 100MB si logului de 20MB cu limita de crestere de 1000MB. Pentru fisierele secundare sa se defineasca un Filegroup nou implicit, setind cresterea fisierelor secundare de 10MB cu limita de 1000MB.

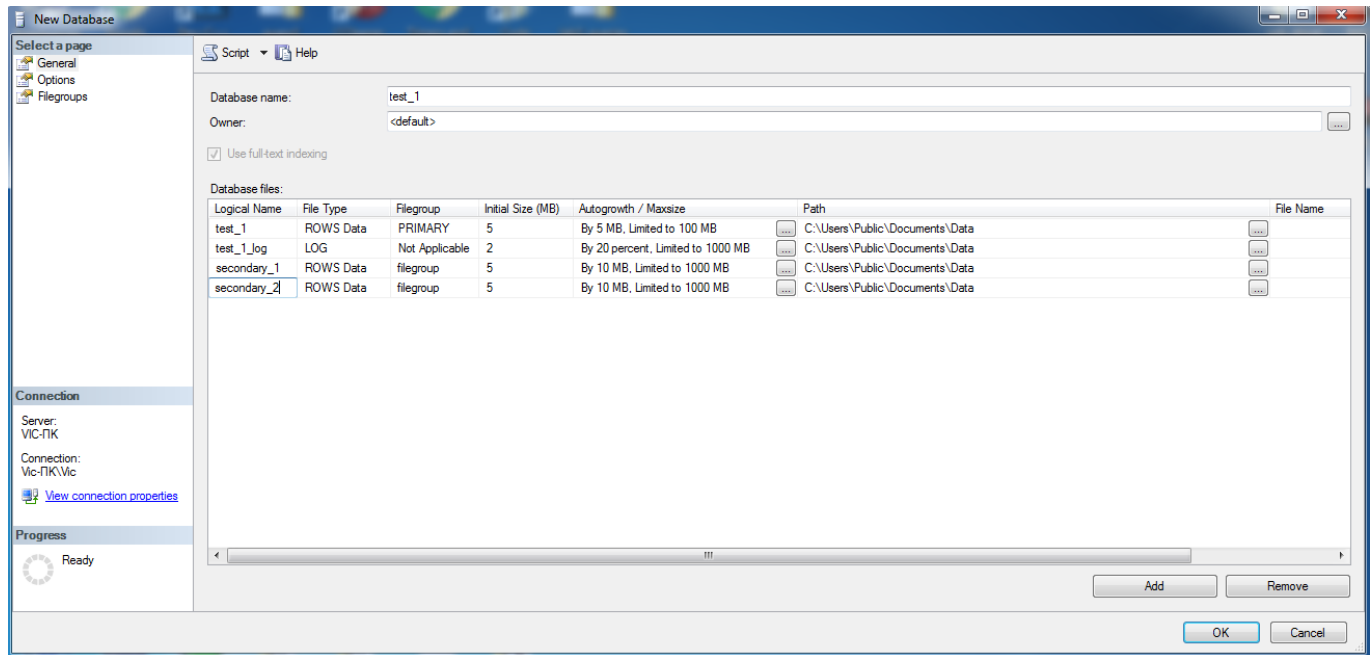


Figure 1: Create a database

Figure 1 represents the window for creating a new database. I chose the name, the initial size, the auto-growth and the maxsize using the provided buttons. I have also set the path to the one indicated in the task. Furthermore, I created a new filegroup and placed the last two files inside this filegroup.

Task 2

Creai o baza de date, unde fisierul log sa fie fizic plasat in mapa MyDocuments/Log, numele fisierului log in mediul sistemului de operare trebuie sa se deosebeasca de cel logic definit in schema fizica. Este important ca baza de date sa fie compatibila cu sistemul MS SQL Server 2014 s, i ea sa fie accesibila numai unui singur utilizator intr-un moment de timp.

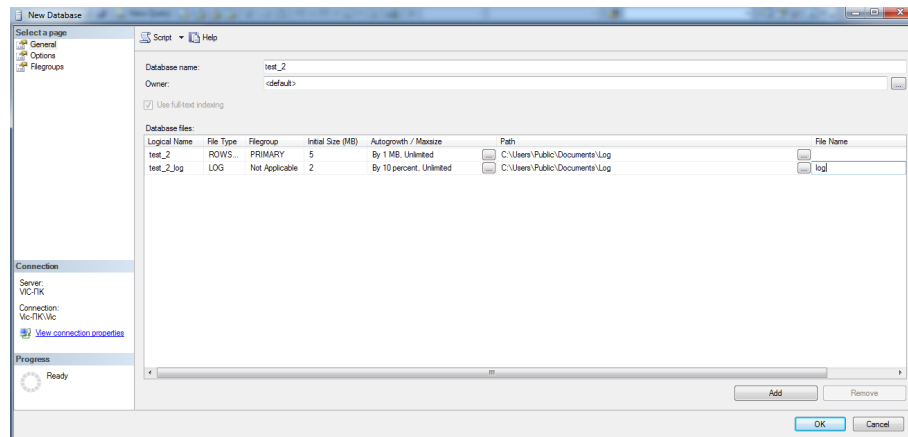


Figure 2: Create a database

Figure 2, as before, represents the window for database creation. For the log file I selected the file name 'log' in the according field.

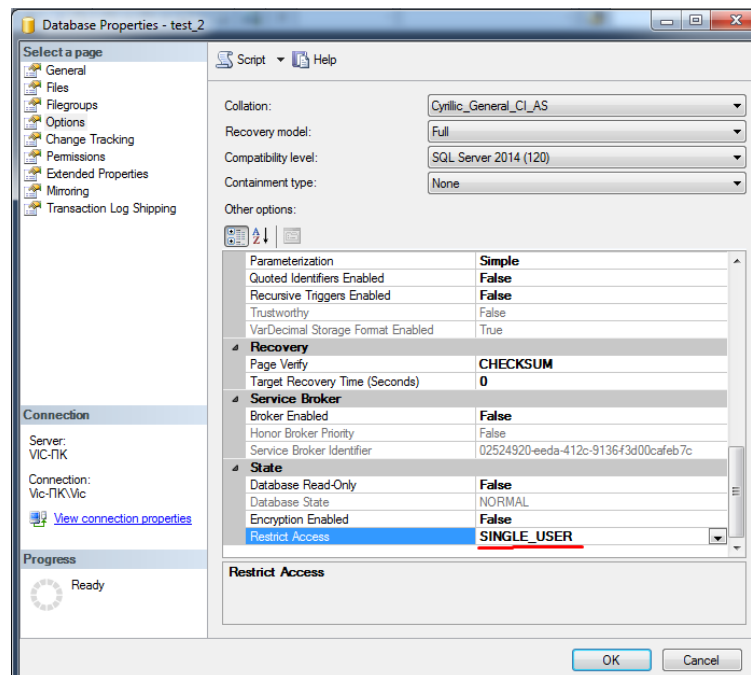


Figure 3: Restrict access to database

In Figure 3 can be seen that I selected the SINGLE USER option for the restrict option setting in the Options menu in order to ensure that only one user can access the database at a time.

Task 3

Creati planul de intret, inere a bazei de date, construita in sarcina 1. Spatiul neutilizat de fisierele bazei de date trebuie indepartat atunci cind el atinge marimea de 2000MB. Spatiul eliberat trebuie sa fie returnat sistemului de operare. Aceasta operatiune trebuie sa ruleze in fiecare vineri, la ora 02:00. Raportul executarii planului de intret, inere trebuie salvat in docarul MyDocuments/SQL Reports.

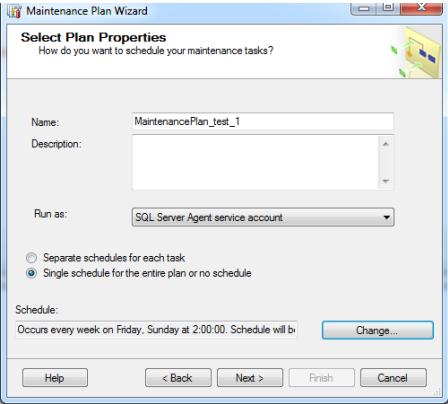


Figure 4: Maintenance Plan Wizard

In figure 4 we can see the Maintenance Plan Wizard where I gave it a name and scheduled it for the time required in the task. Moreover, in Figure 5 we can see the window for scheduling the jobs in the maintenance plan. I set everything as the task requires.

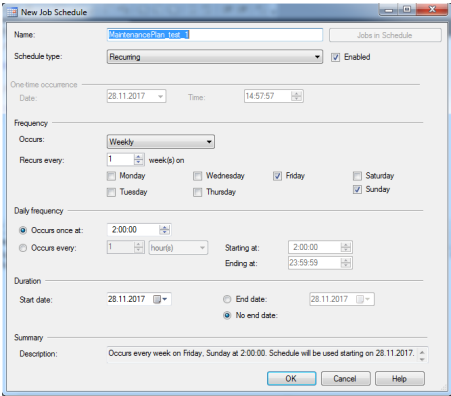


Figure 5: Job scheduler

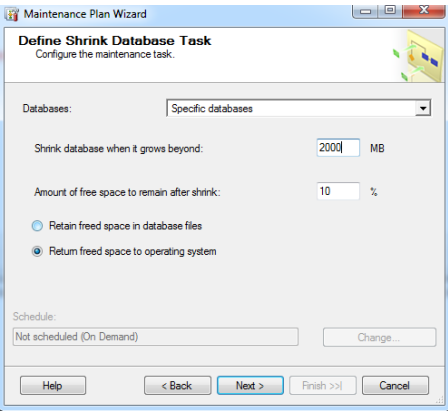


Figure 6: Report saving

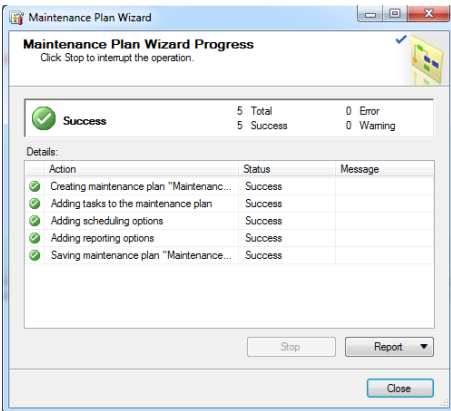


Figure 7: Defining shrink task

Figure 6 above shows the path of where the report is going to be saved and Figure 7 shows the setting of the database shrink task. For the option 'Shrink database when it goes beyond ' I put 2000MB and chose the option 'Return to the OS' as stated in the task.

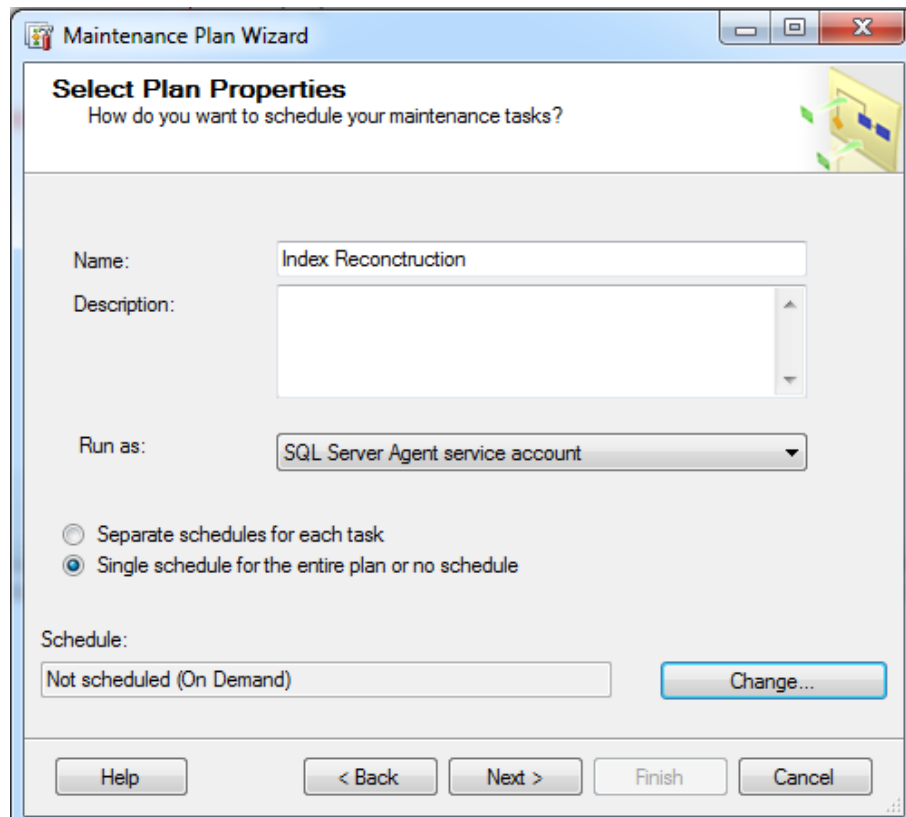


Figure 8: Create a database

Figure 8 shows that the maintenance plan was set up successfully.

Task 4

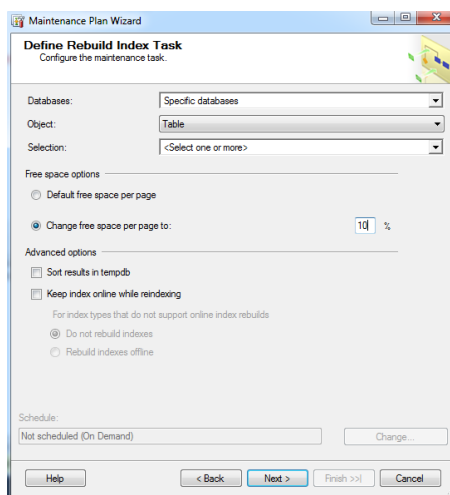


Figure 9: Report saving

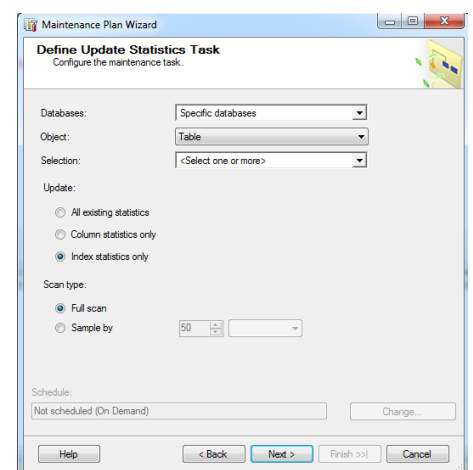


Figure 10: Defining shrink task

Figure 9, again, shows the Maintenance Plan Wizard where I input the name and the schedule for the jobs. A closer look at the scheduler can be seen in Figure 10. All the fields are filled with the information required

in the task.

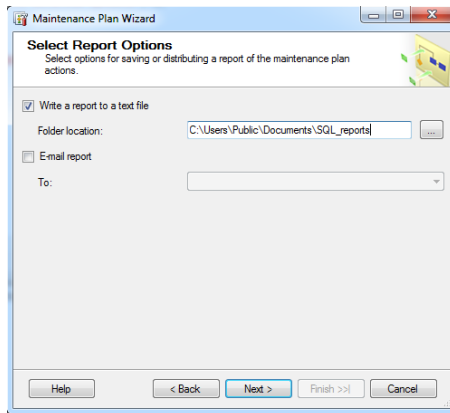


Figure 11: Report saving

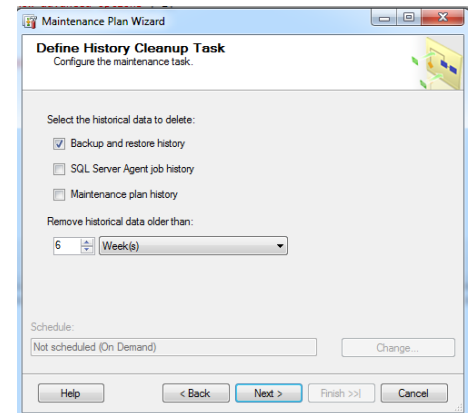


Figure 12: Defining shrink task

Figure 11 represents the definition of the rebuild index task. Here I selected the desired database and put the free space per page to 10index statistics only.

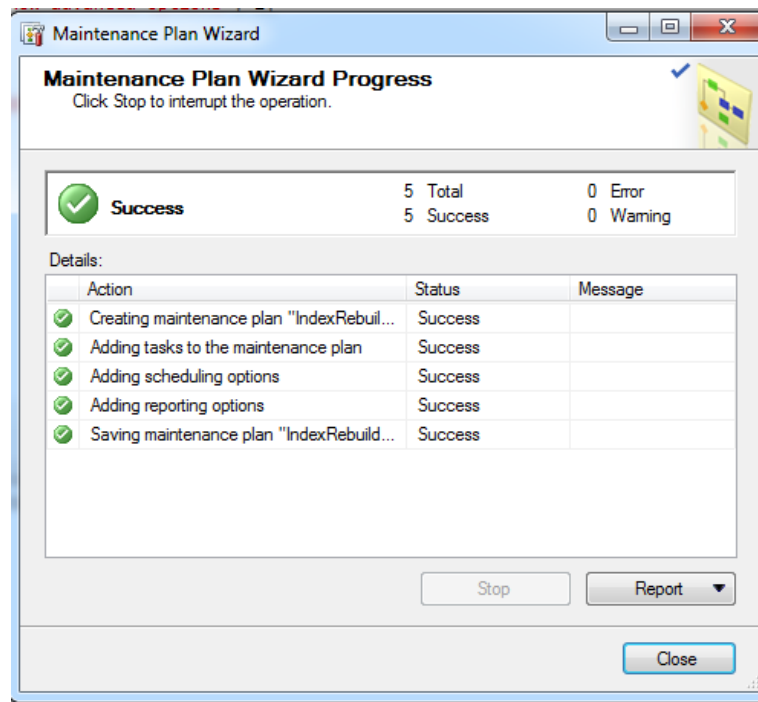


Figure 13: Create a database

In Figure 13, I defined the history cleanup task and set to remove the backup and restore history only. Also, put 6 weeks as the limit from which to remove the files. Figure 14 shows where the reports will be saved.

Conclusion

During this laboratory work, I created two databases and set up some maintenance plans for them using MS SQL Server. In the future, the maintenance plans will help maintain the database without having to do everything manually.