**Databases Laboratory Work Nr 2**

Creating and Configuring Databases

**Prerequisites:** MS SQL, SSMS/Azure Data Studio/e.t.c.

**Objectives:** To create a database and configure it’s parametres

**Tasks:**

1)Create Databases with secondary filegroups and logs under MyDocuments/Data and MyDocuments/Logs with their size/filegrowth configured as was said in book.

2)Create Job Scheduling for first of your databases. Job is equal to database shrinking. Schedule must execute Job every friday at 00:00.

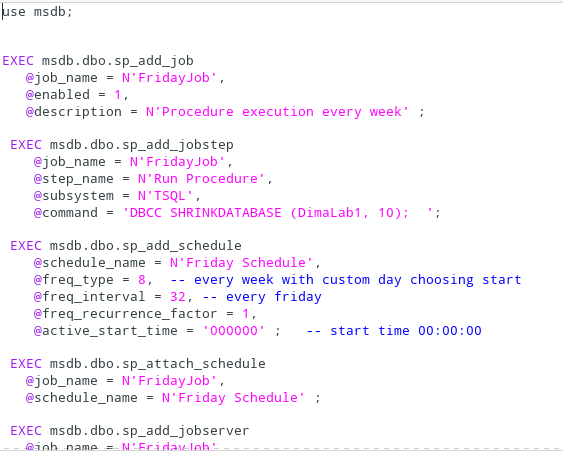
3)Create Job Scheduling for the second of your databases. Here you must have next jobs: Index Rebuild (every Friday) and Clear Backup History (every month at Sunday)

**Implementation**

To implement what can be done in SSMS by doing some clicks i had to write T-SQL queries. i had to:

1)Write a query to create a database. There we can pick from such options as «FILEGROWTH, MAXSIZE» and so on.

2)Implement Scheduling via msdb built-in commands. This one i have done with official microsoft documentation. Here are some examples:



**So here we have a bunch of procedures with names like «sp\_add\_job».**

**By using these Procedures i created and attached job named «FridayJob» and schedule «Friday Schedule». Shrinking part is done by @command parameter.**

3)All the same as in the second task, with the exception of schedule dates,

names, and command. Of course, here we have to work with harder topics like index. (strictly speaking index is a data structure that is used to make SQL queries faster. If our sql has many INSERT, DELETE, UPDATE commands, then we must rebuild our indices, because otherwise we may stumble upon optimization issues which is related to fragmentation)

Also, i made some queries to simply show info like databases size and indices fragmentation percentage.

**Conclusion**: After doing this laboratory work i know how to create a databases, configure them, create jobs/schedules and attach them to each other.I also know much more about T-SQL and msdb inner workings.