# Week 13 Lab 2 Databases 3 Practical

## **Example code**

## **Control statements**

BEGIN

END

## **Table variables**

USE <database> GO

DECLARE @ListOfStudents Table (

[rowNumber] int NOT NULL identity(1,1), [LastName] varchar(100) NULL,

[FirstName] varchar(100) NULL,

[Username] varchar(100) NULL,

[UserPassword] varchar(100) NULL

)

## **Inserting data into the table variable**

INSERT INTO @ListOfStudents (LastName, FirstName, Username, UserPassword) SELECT LastName, FirstName, Username, password FROM <table>

## **Controlled starting point**

IF EXISTS (SELECT \* FROM @listOfStudents)

BEGIN

-- <insert code>

END

## **Driving loop**

WHILE @currentRow <= @maximumRows

BEGIN

-- <insert code>

SET @currentRow += 1;

END

## **Creating logins**

DECLARE @ExecTemp nvarchar(1000)

DECLARE @\_Login nvarchar(100), @\_Password nvarchar(100), @\_DefaultDatabase nvarchar(100)

BEGIN

SET @ExecTemp = 'CREATE LOGIN ' + @\_Login + ' WITH PASSWORD = ''' + @\_Password + ''', DEFAULT\_DATABASE = ' + @\_DefaultDatabase

PRINT (@ExecTemp)

EXEC (@ExecTemp)

END

## **Creating databases**

DECLARE @dbFilePath nvarchar(2000) DECLARE @dbLogPath nvarchar(2000)

DECLARE @createFolderXP nvarchar(2000) DECLARE @domainLogin nvarchar(30)

DECLARE @prefix nvarchar(200)

DECLARE @dbName nvarchar(1000)

DECLARE @logicalDataName nvarchar(600) DECLARE @logicalLogName nvarchar(600) DECLARE @dataFileName nvarchar(600) DECLARE @logFileName nvarchar(600)

DECLARE @dataSize nvarchar(500)

DECLARE @dataMaxSize nvarchar(500) DECLARE @dataFileGrowth nvarchar(500) DECLARE @logSize nvarchar(500)

DECLARE @logMaxSize nvarchar(500) DECLARE @logFileGrowth nvarchar(500)

DECLARE @exeTemp nvarchar(5000)

BEGIN

PRINT('Begin create database')

SET @LogicalDataName=@DBName + '\_dat'

SET @DataFileName= @dbFilePath + @DBName + '.mdf'

SET @LogicalLogName=@DBName + '\_log'

SET @LogFileName= @dbLogPath + @DBName + '.ldf'

SET @exeTemp = 'CREATE DATABASE ' + @DBName + ' ON ('

+ 'NAME = [' + @LogicalDataName + '], '

+ 'FILENAME = [' + @DataFileName + '], '

+ 'SIZE = ' + @DataSize + ', '

+ 'MAXSIZE = ' + @DataMaxSize + ', '

+ 'FILEGROWTH = ' + @DataFileGrowth + ') '

+ 'LOG ON ('

+ 'NAME = [' + @LogicalLogName + '], '

+ 'FILENAME = [' + @LogFileName + '], '

+ 'SIZE = ' + @LogSize + ', '

+ 'MAXSIZE = ' + @LogMaxSize + ', '

+ 'FILEGROWTH = ' + @LogFileGrowth + ') ' PRINT('Creating database ' + @DBName)

PRINT(exeTemp)

END(@exeTemp)

END

## **Creating database users**

SET @exeTemp='USE ' + @\_DBName + ' CREATE USER [' + @\_Login + '] FOR LOGIN [' + @\_Login + ']'

## **Tasks**

1. Using the SQL Server import and export wizard, import the CSV file of database users on the I drive into a new table in a database on your SQL Server. How you do this is up to you (import from csv, xslx, txt etc.).
2. Using the imported data, for each user create a database, SQL Server Login and a database user – you should be able to test this by logging in to SSMS as a created user

## **Instructions for task 1.**

1. Create a new table with the following information in a database:
   1. StudentID
   2. LastName
   3. FirstName
   4. Username
   5. Password
2. Right click on the database and hover over **Tasks** then click on **Import Data**
3. Click on the **Data Source** dropdown and select **Flat File Source.** Wait a couple of seconds for the interface to load. Click on the **Browse** button and select the .CSV file. Click on the **Preview** tab to see the contents of the file.Click on **Next** to continue. Make sure you check the .csv file for any errors.
4. Keep clicking next until you are at the **Choose a Destination** interface. Click on the **Destination** dropdown and select **Microsoft OLE DB Provider for SQL Server**. If the server name input is empty, please specify. Click the **SQL Server Authentication** radio button and enter a username and password. Click on **Next** to continue.
5. Change the table in the **Select Source Tables** **and View**s interface to created table’s name. Click on the **Next** button to continue.
6. Continue clicking on the Next button until the Finish button disables.
7. The data from the .CSV file should be imported into the database. Execute the following command to see

SELECT \* FROM <TABLE NAME>