T-SQL Exercises

Creating SQL Logins and Database Users

-- Step 1: Use the master database.

```
USE master;
GO
```

-- Step 2: Create a Windows login for [domain\user].

```
CREATE LOGIN [DESKTOP-D8ARTRU\srijana] FROM WINDOWS;
GO
```

-- Step 3: Note that the name of the login is the Windows user name.

-- In SSMS, expand the Security node, then the Logins node, and locate the new login.

-- You might have to refresh the view

-- Step 4: Query the list of existing logins.

-- Scroll to the right to see the available columns.

```
SELECT * FROM sys.server_principals WHERE type IN ('U','G');
GO
```

-- Step 5: In particular, note the values in the name, type, type_desc, is_disabled, default_database_name, and default_language_name columns.

-- Step 6: Create a SQL Server login named 'SQMJL1' with password 'Pa$$w0rd' using T-SQL.

```
CREATE LOGIN SQMJL1 WITH PASSWORD = 'Pa$$w0rd';
```

GO

-- Step 7: Use the Database Engine Query toolbar icon to logon to the server as SQMJL1. (Click on Database Engine Query, in the Connect to Server window, select SQL Authentication, enter SQMJL1 as the user name, Pa$$w0rd as the password and click Connect)

-- Step 8: In the window that opens, copy and paste the following query to see the available logon tokens.

```
SELECT * FROM sys.login_token;
GO
```

-- Try to change to the TSQL2018 database...? Return to the Administrator query window

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-- Step 9: Note that SQMJL1 is also a member of the public server role. In SSMS, under Security\Logins, right click SQMJL1 and choose Properties. Examine the Server Roles page to view role membership. Close the window that was opened when SQMJL1 connected.

-- Step 10: Create a SQL Server login for Nupur using the GUI interface. (In Object Explorer, expand Security, expand Logins, right-click Logins and click New Login. In the Login - New window, enter Nupur as the login name, click SQL Server authentication, enter Pa$$w0rd as the password and as the confirm password. Note the available policy options and click OK to create the login)

-- Step 11: Re-query the list of existing logins.

```
SELECT * FROM sys.server_principals WHERE type IN ('U','G');
GO
```

-- Step 12: Query the list of SQL Server logins. Scroll the results to the right and notice in particular the columns is_policy_checked, is_expiration_checked, and password_hash.

```
SELECT * FROM sys.sql_logins;
GO
```

-- Step 13: Change to the TSQL2018 database. Note that you cannot create a user in one database from within another database. Users are always created in the current database.

```
USE TSQL2018;
GO
```

-- Step 14: Create a user for the SQMJL1 login

```
CREATE USER SQMJL1 FOR LOGIN SQMJL1;

-- Go back to the SQMJL1 query window and try to change to the TSQL2018 database.
```

-- Step 15: Create a user in the TSQL2018 database for the logon Nupur that was created using the GUI. Call the user Nupur and leave all other values at their defaults. (In Object Explorer, expand Security, expand Logins, right-click Logins and click Refresh. Right-click the Nupur login and click Properties. In the Select a page pane, click User Mapping. In the list of mappings, check the box in the Map column beside the TSQL2018 database)

```
USE TSQL2018;
GO
CREATE USER Nupur FOR LOGIN Nupur;
GO
```

-- Step 16: Query the list of existing users. Review the list of users that is returned. Note in particular the guest, INFORMATION_SCHEMA and sys users. These will be discussed in a later module.

```
SELECT * FROM sys.database_principals WHERE type IN ('S','U');
GO
```