PROTECTING SQL SERVER DATA: SAMPLE SCRIPTS

All of the coding examples that are provided in this book were written using **SQL Server 2008 SP1, Developer Edition**. The following files area included with this compressed folder:

Database Creation Scripts

- **`CreateHomeLendingDB.sql`**
  This file will create the physical files (.mdf/.ldf) for the `HomeLending` database.
- **`CreateHomeLendingTables.sql`**
  This file will create the tables for the `HomeLending` database.
- **`CreateHomeLendingRelationships.sql`**
  This file will create the relationships for the tables of the `HomeLending` database.

Database Roles, Users and Schema Scripts

- **`CreateRolesUsers_Chapter2.sql`**
  This file will create the database roles, users and role memberships for the `HomeLending` database.
- **`ExtendedProperties_Chapter2.sql`**
  This file will create the extended properties for the `HomeLending` database table columns.
- **`ArchitectureStrategies_Chapter3.sql`**
  This file will create database schema objects, views and linked servers.

Encryption Scripts

- **`CreateKeysCerts_Chapter4.sql`**
  This file will create encryption keys and certificates.
- **`CreateCryptographicProvider_Chapter4.sql`** *(SS2008 Only)*
  This file will create a cryptographic provider for the Extensible Key Management feature.
- **`BackupKeysCerts_Chapter4.sql`**
  This file will back up the encryption keys and certificates.
- **`CellLevelEncryption_Chapter5.sql`**
  This file will implement cell-level encryption on a single column in the `HomeLending` database.
- **`TransparentDataEncryption_Chapter6.sql`** *(SS2008 Only)*
  This file will implement transparent data encryption for the `HomeLending` database.
- **`TDERestoreReversal_Chapter6.sql`**
  This file will restore and reverse the implementation of TDE.
- **`OneWayEncryption_Chapter7.sql`**
  This file will implement one-way encryption

Obfuscation and Honeycombing Scripts

- **`Obfuscation_Chapter8.sql`**
  This file will create implement various obfuscation methods.
- **`Honeycombing_Chapter9.sql`** *(SS2008 Only)*
  This file will create implement a honeycomb table as well as a database audit.

Please note that it is highly discouraged to implement the provided sample code, either entirely or in part, on an instance of SQL Server that is actively utilized for production activity. All sample code is provided for illustrative purposes only and are provided "as is" without any warranties or guarantees of any kind, either expressed or implied. In no event shall the author or publisher be liable for any direct, indirect, incidental, special, exemplary, or consequential damages arising in any way out of the use of the provided sample code.

Creating the HomeLending Database

To create the `HomeLending` database, perform the following instructions:

1. **Download** the compressed folder **`HLSchema.zip`** from the previously provided URL.
2. **Open SQL Server Management Studio** (SSMS) and connect to the desired SQL Server instance.
3. **Open the file** named **`CreateHomeLendingDB.sql`** in SSMS.
4. **Modify** the `FILENAME` argument in the `CREATE DATABASE` command to the desired location of the database's **.mdf** and **.ldf** files.
5. **Execute** the script.

If SSMS is not available in the start menu, you can typically find the location of this program at:

SQL Server 2008 SSMS:
C:\Program Files\Microsoft SQL Server\100\Tools\Binn\VSShell\Common7\IDE\Ssms.exe

SQL Server 2005 SSMS:
C:\Program Files\Microsoft SQL Server\90\Tools\Binn\VSShell\Common7\IDE\SqlWb.exe

Creating the HomeLending Database Tables

Once the script for the `HomeLending` database has been successfully completed, the tables can be created through the following instructions:

1. **Open the file** named **`CreateHomeLendingTables.sql`** in SSMS.
2. **Execute** the script.
3. **Open the file** named **`CreateHomeLendingRelationships.sql`** in SSMS to create the foreign keys for the newly created tables.
4. **Execute** the script.

At this point the `HomeLending` database has been created; but is empty. It is recommended to use a tool, such as Red Gate's SQL Data Generator to produce the data for this sample. Many of these tools make their best guess to the format of the data that is being populated. You may want to review these

definitions and modify them as needed to populate your database with data that has the appearance of real data.

You can download a trial of Red Gate's SQL Data Generator at:
http://www.red-gate.com/products/SQL_Data_Generator/index.htm

Executing Subsequent Scripts

As you progress through this book there will be sample code provided that can be used on the `HomeLending` database. Simply perform the following to execute these scripts:

1. **Open** the desired script file in SSMS.
2. **Execute** the desired portion of the script.

There are some scripts that reference a physical location through a drive and folder specification. Please modify these according to your environment prior to execution.