Introduction

This project will test your knowledge on the labs that you have completed in this course. You will work with the database you created in Assignment 5, making modifications as necessary. **Ensure that you have completed Assignments 5, 8 and 10 in their entirety** before you begin this project. In addition, before you begin, please ensure that you verify the information that is your RetailSales database, and re-run SQL commands as necessary.

Database Structure

The following tables should already represent the structure of your RetailSales database.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Database: | Retail Sales | | | | |
| Table: | Ottawa.Customers | | Table: | Ottawa.Suppliers | |
| Column Name | Character Type | Max Characters | Column Name | Character Type | Max Characters |
| CUSTOMERID | int (PK) |  | SUPPLIERID | int (PK) |  |
| FIRSTNAME | varchar | 100 | SUPPLIERNAME | varchar | 100 |
| LASTNAME | varchar | 100 | ADDRESS | varchar | 100 |
| ADDRESS | varchar | 100 | CITY | varchar | 100 |
| CITY | varchar | 100 | PROVINCE | varchar | 100 |
| PROVINCE | varchar | 100 | POSTALCODE | varchar | 100 |
| PHONENUMBER | varchar | 100 | PHONENUMBER | varchar | 100 |
|  |  |  |  |  |  |
| Table: | Ottawa.Products | | Table: | Transactions | |
| Column Name | Character Type | Max Characters | Column Name | Character Type | Max Characters |
| PRODUCTID | int (PK) |  | TRANSNUM | int (PK) |  |
| DESCRIPTION | varchar | 255 | PRODUCTID | int (FK) |  |
| COST | money |  | CUSTOMERID | int (FK) |  |
| RETAILPRICE | money |  | RETAILPRICE | money |  |
| SUPPLIERID | int (FK) |  | QUANTITY | int |  |
|  |  |  |  |  |  |

Table Information:

Add the following information into the tables.

|  |  |
| --- | --- |
| **Customers Table** | |
| CustomerID: 120  FirstName: Henriette  LastName: Samuel  Address: 120 Kings Cross Lane  City: Marionette  Province: QC  PostalCode: R5T 6N8  PhoneNumber: 611-556-9852 | CustomerID: 121  FirstName: Rosina  LastName: Strinati  Address: 121 Hopkins Lane  City: Kingston  Province: ON  PostalCode: U8Y 9L1  PhoneNumber: 545-556-9866 |
| CustomerID: 122  FirstName: Fillipo  LastName: Candreva  Address: 52 Ferrari Drive  City: Folliero  Province: BC  PostalCode: Y9K 8K0  PhoneNumber: 151-456-7855 | CustomerID: 123  FirstName: Raffaele  LastName: Spina  Address: 12 Gianni De Luca St  City: Vulcan  Province: AB  PostalCode: P90 8T3  PhoneNumber: 611-556-9852 |
| **Suppliers Table** | |
| SupplierID: 779562  SupplierName: Multimicro Inc  Address: 29 Multimicro Way  City: Laval  Province: QC  PostalCode: U8P 0Y7  PhoneNumber: 819-966-3579 | SupplierID: 688559  SupplierName: ChrisCo  Address: 73 Wild Goose Road  City: WaWa  Province: ON  PostalCode: P0S 0A2  PhoneNumber: 552-669-9866 |
| **Products Table** | |
| ProductID: 6689995  Description: Logitech Ergo K860  Cost: 101.10  RetailPrice 150.00  SupplierID 779562 | ProductID: 6685585  Description: High Speed 4K HDMI Cable, 25ft  Cost: 12.00  RetailPrice 19.99  SupplierID 779562 |
| **Transactions Table** | |
| TransNum: 55487766  CustomerID: 122  ProductID: 6689995  RetailPrice: 150.00  Quantity: 5 | TransNum: 382746  CustomerID: 122  ProductID: 6689995  RetailPrice: 179.00  Quantity: 3 |

Query

* Run a query that display the contents of all tables (do four separate queries)
  + Take a screenshot
* Run a query that displays only the first 5 lines of the Customers table
  + Take a screenshot
* Run a query that displays the last line in the Suppliers table
  + Take a screenshot
* Run a query that displays the names of the four tables that you created in the RetailSales database
  + Take a screenshot

Backup

* Perform a Full backup of the RetailSales database
  + Take a screenshot that displays the size of the RetailSales database backup
  + Note: You can either run an SQL query on the size of the backup or take a screenshot of File Explorer showing the file size.

Table Information (Revisited)

Add the following information to the database into the appropriate table.

|  |
| --- |
| **Customers Table** |
| CustomerID: 130  FirstName: Tamara  LastName: Egorova  Address: 6665 Kiseleva Way  City: Seren  Province: MN  PostalCode: S9E 3R3  PhoneNumber: 955-556-2223 |
| **Suppliers Table** |
| SupplierID: 8859992  SupplierName: Kalindi Corp  Address: 1 Starfield Way  City: Cali  Province: YK  PostalCode: C8A L1E  PhoneNumber: 332-654-7855 |
| **Products Table** |
| ProductID: 62223335  Description: Projector Screen 100 Inch 16:9  Cost: 51.00  RetailPrice 109.96  SupplierID 8859992 |
| **Transactions Table** |
| TransNum: 55488855  CustomerID: 121  ProductID: 62223335  RetailPrice: 109.96  Quantity: 1 |

Backup (Revisited)

* Perform a transaction log backup of the RetailSales database
  + Take a screenshot showing the size of the transaction log backup

Query

* Run a query displaying the last line entered of each table
  + Take a screenshot for each query

Security

* Create a **dynamic display mask** that hides the Customer Phone Numbers in the Customers table
* **Encrypt** the Cost field in the Products table
* Create a **dynamic display mask** that hides the address information in the Suppliers table

Query

* Run a query that shows the information in the Customers table has been masked
  + Take a screenshot
  + Note: Do not show me the unmasked data
* Run a query showing that the cost field in the Products table has been encrypted
  + Take a screenshot
* Run a query showing that the Suppliers address information is masked
  + Take a screenshot
  + Note: Do not show me the unmasked data

Submission

Screenshots of the successful completion of all your queries are required. You may paste the screenshots in the individual “Query” sections of this document.

You are also required to provide screenshots of the backup files that you created.

You must also include all the Transact-SQL syntax used.