

## Comp 1630

### Relational Database Design & UML

#### EXERCISE 6 – SQL Server Management Studio

Complete the following using the [Microsoft SQL Server Management Studio](#) tool.

1. Launch and connect to SQL Server.
2. Create a database called **Exercise\_6** (Right click).
3. Create a user-defined data type called **Id\_DataType**. This will be used for the Id columns to ensure consistent data type, length, and null ability.
4. Create the following tables (see page 2 for column information):
  - Author
  - Book
  - Branch
  - Inventory
  - Publisher
  - Type
5. Add all the Primary Keys and Foreign Keys.
6. The default value for the **Book** table's **Paperback** column is 'N'.
7. The default value for the **Publisher** table's **Prov** column is 'BC'.
8. The default value for the **Book** table's **PubDate** column is today **GETDATE()**.
9. Add a check constraint to the **Book** table's **Type\_Id** column to ensure the upper case letters A through Z are the only acceptable values for each of the characters in the column.
10. Add a check constraint to the **Branch** table's **Id** column for values 1 through 99999.
11. Add a check constraint to the **Type** table's **Description** column for the values 'FIC', 'NON', 'REF'.

Submit the PDF image of the ERD created in step 4 to the D2L Ex6 drop box.

## Table Layout

### Author

Column Name	Data Type	Length		Key	Null
Auth_Id	char	5	User-defined Data Type	PK	No
Auth_LastName	varchar	50			
Auth_FirstName	varchar	50			
Auth_MiddleName	varchar	50			

### Book

Column Name	Data Type	Length		Key	Null
Book_Id	char	5	User-defined Data Type	PK	No
Book_Title	varchar	50			
Book_Price	money				
Book_Paperback	char	1			
Book_PubDate	datetime				
Pub_Id	char	5	User-defined Data Type	FK	No
Auth_Id	char	5	User-defined Data Type	FK	No
Type_Id	char	3		FK	No

### Branch

Column Name	Data Type	Length		Key	Null
Branch_Id	char	5	User-defined Data Type	PK	No
Branch_Name	varchar	50			
Branch_Location	varchar	50			
Branch_Staff	int				

### Inventory

Column Name	Data Type	Length		Key	Null
Book_Id	char	5	User-defined Data Type	PK1 FK	No
Branch_Id	char	5	User-defined Data Type	PK2 FK	No
Inv_Level	int				

### Publisher

Column Name	Data Type	Length		Key	Null
Pub_Id	char	5	User-defined Data Type	PK	No
Pub_Name	varchar	50			
Pub_Address	varchar	50			
Pub_City	varchar	50			
Pub_Prov	char	2			
Pub_Postal	char	6			

### Type

Column Name	Data Type	Length		Key	Null
Type_Id	char	3		PK	No
Type_Description	varchar	50			