Exercise 5

Phase 4. Final version with a remote connection

4.1. On the server side

Step 1

In this phase we will develop a final version of the functions implementing the business logic and data access.

In the database of this example add a view ***BooksWithDescriptions.***

SELECT   Authors, Description, Title, ISBN   FROM   dbo.Titles

In the project eLibraryServer, class DAL add a function **getBookByISBN**:

```csharp
public DataTable getBookByISBN(String pStrISBN)
{
        DataTable dt=new DataTable();
        SqlConnection connection=new SqlConnection();
        SqlCommand cmd=new SqlCommand();

        connection.ConnectionString =
eLibraryServer.Properties.Settings.Default.biblioConnectionString;

    try
    {
        using (connection)
        {
            connection.Open();
            cmd.Connection = connection;
        cmd.CommandText = "Select * from BooksWithDescriptions where ISBN='" + pStrISBN + "'";
            dt.Load(cmd.ExecuteReader());
        }
     }
    catch(SqlException e){  connection.Close();}
    return dt;
}
```

4.2. On the client side

Step 1

-Add a new form, Windows Form type - frmSelectedBook, for displaying data for the selected book.
- Insert a button [OK] to close the form;
- Add four labels.
-    lblISBN   text="ISBN"
-    lblTitle   text="Title"
-    lblAuthors   text="Authors"
-    lblDescription   text="Description"
- Add four textboxes that will display corresponding attribute of the selected book:
-    txtISBN (size - 9)
-    txtTitile (size – 9, multiline, bold)

- txtAuthors (size - 9)
- txtDescription (size – 9, multiline)

- Add a public variable **SelectedISDN.**

public string SelectedISBN

- in the function of the event *load*, add the following code for reading the SelectedISBN and assign the value from the text box txtISBN.

```csharp
private void frmSelectedBook_Load(object sender, EventArgs e)
        {   eLibraryServer.DAL oDAL = new eLibraryServer.DAL();
            DataTable dt = new DataTable();
            DataRow row1;
            this.txtISBN.Text = SelectedISBN;
            dt = oDAL.getBookByISBN(SelectedISBN);
            row1 = dt.Rows[0];
            txtTitle.Text = row1["Title"].ToString();
            txtAuthors.Text = row1["Authors"].ToString();
            txtDescription.Text = row1["Description"].ToString();
        }
```

Step 2

In the form **frmBooks**,
- add a function to **DataGridView1** event *RowHeaderMouseDoubleClick,* which will open a new dialog form *frmSelectedBook.*

```csharp
private void dataGridView1_RowHeaderMouseDoubleClick(object sender, DataGridViewCellMouseEventArgs e)
        {
        frmSelectedBook.SelectedISBN = dataGridView1.SelectedRows[0].Cells[0].Value.ToString();
        frmSelectedBook frm=new frmSelectedBook();
        frm.ShowDialog();
         }
```

Run the program and see the result. The new form looks as follows: