// JoiningTableData.cs

// Using LINQ to perform a join and aggregate data across tables.

using System;

using System.Linq;

using System.Windows.Forms;

namespace JoinQueries

{

public partial class JoiningTableData : Form

{

public JoiningTableData()

{

InitializeComponent();

} // end constructor

private void JoiningTableData\_Load(object sender, EventArgs e)

{

// Entity Framework DBContext

BooksEntities dbcontext =

new BooksEntities();

// get authors and ISBNs of each book they co-authored

var authorsAndISBNs =

from author in dbcontext.Authors

from book in author.Titles

orderby book.Title1

select new { book.Title1 ,author.FirstName, author.LastName};

outputTextBox.AppendText("Titles and Authors");

// display authors and ISBNs in tabular format

foreach (var element in authorsAndISBNs)

{

outputTextBox.AppendText(

String.Format("\r\n\t{0,-50} {1,-10} {2}",

element.Title1,element.FirstName, element.LastName));

} // end foreach

// get authors and titles of each book they co-authored

var authorsAndTitles =

from author in dbcontext.Authors

from book in author.Titles

orderby book.Title1,author.LastName, author.FirstName

select new

{

book.Title1,

author.FirstName,

author.LastName

};

outputTextBox.AppendText("\r\n\r\nAuthors and titles with authors sorted for each title:");

// display authors and titles in tabular format

foreach (var element in authorsAndTitles)

{

outputTextBox.AppendText(

String.Format("\r\n\t{0,-10} {1,-10} {2}",

element.FirstName, element.LastName, element.Title1));

} // end foreach

// get authors and titles of each book

// they co-authored; group by author

var titlesByAuthor =

from books in dbcontext.Titles

orderby books.Title1

select new

{

Title = books.Title1,

Authors = from authors in books.Authors

orderby authors.LastName, authors.FirstName

select new

{

authors.LastName,

authors.FirstName

}

};

outputTextBox.AppendText("\r\n\r\nTitles grouped by author:");

// display titles written by each author, grouped by author

foreach (var title in titlesByAuthor)

{

// display author's name

outputTextBox.AppendText("\r\n\t" + title.Title+ ":");

// display titles written by that author

foreach (var names in title.Authors)

{

outputTextBox.AppendText("\r\n\t\t" + names.FirstName + " " + names.LastName);

} // end inner foreach

} // end outer foreach

} // end method JoiningTableData\_Load

private void outputTextBox\_TextChanged(object sender, EventArgs e)

{

}

} // end class JoiningTableData

} // end namespace JoinQueries

Data Source=(localdb)\MSSQLLocalDB;AttachDbFilename=C:\Users\sspas\Desktop\Books.mdf;Initial Catalog=MM;Integrated Security=True

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