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CECS 475 - Lab #4

Requirements Sheet Answers:

**a) Get a list of all the titles and the authors who wrote them. Sort the result by title.**

// Entity Framework DBContext

BookDatabase.BooksEntities dbcontext =

new BookDatabase.BooksEntities();

// Get a list of all the titles and the authors who wrote them.

// Sort the result by title.

var titlesAndAuthors =

from book in dbcontext.Titles

from author in book.Authors

orderby book.Title1

select new {

book.Title1,

author.FirstName,

author.LastName

}; //end select new

outputTextBox.AppendText("\r\n\r\nTitles and Authors (Sorted By Title):");

// display authors and titles in tabular format

foreach (var element in titlesAndAuthors) {

outputTextBox.AppendText(

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

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

} // end foreach

**b) Get a list of all the titles and the authors who wrote them. Sort the result by title. For each title sort the authors alphabetically by last name, then first name.**

// Get a list of all the titles and the authors who wrote them. Sort the result by title.

// For each title sort the authors alphabetically by last name, then first name.

var authorsAndTitles =

from book in dbcontext.Titles

from author in book.Authors

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

select new {

book.Title1,

author.LastName,

author.FirstName

}; //end select new

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,-50} - {1,-10} {2}",

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

} // end foreach

**c) Get a list of all the authors grouped by title, sorted by title; for a given title sort the author names alphabetically by last name first then first name.**

// Get a list of all the authors grouped by title, sorted by title; for a given

// title sort the author names alphabetically by last name first then first name.

var authorByTitle =

from book in dbcontext.Titles

orderby book.Title1, book.ISBN

select new {

book.Title1,

book.ISBN,

Name =

(from author in book.Authors

orderby author.LastName, author.FirstName

select author.FirstName + " " + author.LastName)

}; //end select new

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

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

foreach (var title in authorByTitle) {

// display Book Title's name

outputTextBox.AppendText("\r\n\t" + title.Title1+ ":");

// display authors who wrote that book

foreach (var author in title.Name) {

outputTextBox.AppendText("\r\n\t\t" + author);

} // end inner foreach

} // end outer foreach