

CECS 475 Lab 5 Code

```

private void JoiningTableData_Load(object sender, EventArgs e)
{
    // Entity Framework DbContext
    BooksEntities dbcontext =
    new BooksEntities();
    //a. get authors and title and sort by title
    var authorsAndAllTitles =
    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 titles
    foreach (var element in authorsAndAllTitles)
    {
        outputTextBox.AppendText(
            String.Format("\r\n\t{0} {1} {2}",
                element.Title1, element.FirstName, element.LastName));
    }
    //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.
    var authorsAndTitlesAuthorNamesSort =
    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
    foreach (var element in authorsAndTitlesAuthorNamesSort)
    {
        outputTextBox.AppendText(
            String.Format("\r\n\t{0} {1} {2}",
                element.Title1, element.FirstName, element.LastName));
    }
    //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.
    var groupedAuthors =
    from author in dbcontext.Authors
    from book in author.Titles
    //orderby book.Title1, author.LastName, author.FirstName
    group author by book.Title1 into GroupedAuthor

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select GroupedAuthor;

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

//display
foreach (var title in groupedAuthors)
{
    var names =
        from srt in title
        orderby srt.LastName, srt.FirstName
        select new { srt.FirstName, srt.LastName };
    outputTextBox.AppendText(
        String.Format("\r\n{0}", title.Key));
    foreach (var name in names)
    {
        outputTextBox.AppendText(
            String.Format("\r\n\t{0} {1}",
                name.FirstName, name.LastName));
    }
}

}

} // end method JoiningTableData_Load

```