

## Lab Assignment #4

**Due Date:** On or before 2<sup>nd</sup> class of week 10

**Marks/Weightage:** 30/10%

**Purpose:** The purpose of this Lab assignment is to:

- Practice the use of ADO.Net Entity Framework

### **References:**

*Read the lecture notes/ppts and code examples. This material provides the necessary information that you need to complete the exercises.*

**Instructions:** Be sure to read the following general instructions carefully:

This lab should be completed individually by all the students. You will have to demonstrate your solution in a scheduled lab session and submitting the assignment through drop box link on eCentennial on or before the due date.

**At the start, you must name your Visual Studio 2019 solution name according to the following rule:**

FirstName-LastName\_SectionNumber\_COMP212\_Labnumber

*For Example: John-Smith\_Sec003\_COMP212\_Lab04 ( say if your section number is 003 )*

>> And your project name should be as follows: FirstName-LastName\_SectionNumber\_ExerciseNumber

*For Example: John-Smith\_Sec003\_Exercise01*

>> If your lab assignment has more than one exercise, then each subsequent exercise should be added to the same solution created above and named as firstname-last-name\_exercise2, firstname\_last-name\_exercise3 etc.

>> After you complete, exit Visual Studio and go to solution folder, zip it up and you will get the following zip file.

FirstName\_LastName\_SectionNumber\_COMP212\_Labnumber.zip For example: John\_Smith\_Sec003\_COMP212\_Lab04.zip (if your section is 003..)

>> Apply the naming conventions for variables, methods, classes, and namespaces:

- variable names start with a lowercase character for the first word and uppercase for every other word
- classes start with an uppercase character of every word
- namespace use only lowercase characters
- methods start with an uppercase character for the first word and uppercase for every other word

**Note: Late submissions are accepted until up to three days past due date with 25% deductions. After that no submission will be considered. You must implement exception handling.**

**Exercise 01:** Databases which you need for this assignment are on e-centennial.

[15 marks]

Create a **Windows Form App/WPF** to manipulate the data within **Books** database and displays the results of the following queries: *(Refer code example covered in the class – JoinQueries )*

1. Get a list of all the titles and the authors who wrote them. Sort the results by title.
2. Get a list of all the titles and the authors who wrote them. Sort the results by title. Each title sort the authors alphabetically by last name, then first name.
3. 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 then first name.

**Exercise 02:**

[15 marks]

Build **Win Form/WPF app** to execute a query against the **Players** table of the **Baseball** database.

Display the result in a DataGridView, and add a TextBox and Button to allow the user to search for a specific player by last name.

Use a Label to identify the TextBox. Clicking the Button should execute the appropriate query.

Also, provide a Button that enables the user to return to browsing the complete set of players.