

### Exercise 01:

Databases which you need for this test02 are on e-centennial.

[20 marks]

Create a Windows Form App/WPF to manipulate the data within **Books** database and displays the results of the following queries: (Refer code examples)

- Get a count of all the authors grouped by title, sorted by title. It should display a title and number of authors who have written that title.
- Get a list of all the titles grouped by author name, sorted by author; for a given author name sort the titles alphabetically.

**Exercise 02:** Build Win Form/WPF to execute a query against the **Players** table of the **Baseball** database (get it from Databases folder from e-centennial).

[30 marks]

The screenshot shows a Windows Form titled "Display Players" with a standard Windows interface (title bar, maximize, minimize, close buttons). The form contains the following elements:

- DataGrid:** A table with columns "PlayerID", "FirstName", and "LastName". It displays three rows: (1, John, Red), (2, Jack, Blue), and (3, George, Green). Below the grid is a scroll bar.
- Search Section:** Two search options are provided: "Search By LastName" and "Search By PlayerId". Each has a text input field and a "Search" button. A "Reset" button is also present.
- Summary Boxes:**
  - A box titled "Player with Highest Batting Average is :" containing "Player Name: John" and "Batting Avg: 0.375".
  - A box titled "Batting average of all the players" containing "Batting Average = 0.314".
- Player List Panel:** A panel titled "List of all Players and Batting Average" containing a list of players and their batting averages:
  - Player Name: John, Batting Avg: 0.375
  - Player Name: Jack, Batting Avg: 0.223
  - Player Name: George, Batting Avg: 0.344
- Buttons:** A "Click to see batting Average" button is located at the bottom right.

- Display the result in a DataGrid
- Add a TextBox and Button to allow the user to search for a specific player by last name.
- Search a record by the Player ID. (add corresponding label and textbox to the existing GUI)
- Display the batting average of all the players. Add appropriate control e.g. a button to the GUI
- Display a name of player who has got the highest batting score.
- Also, provide a Button that enables the user to return to browsing the complete set of players.