

# CSCI/CMPE 3328 Object Oriented Programming in C# Assignment #10

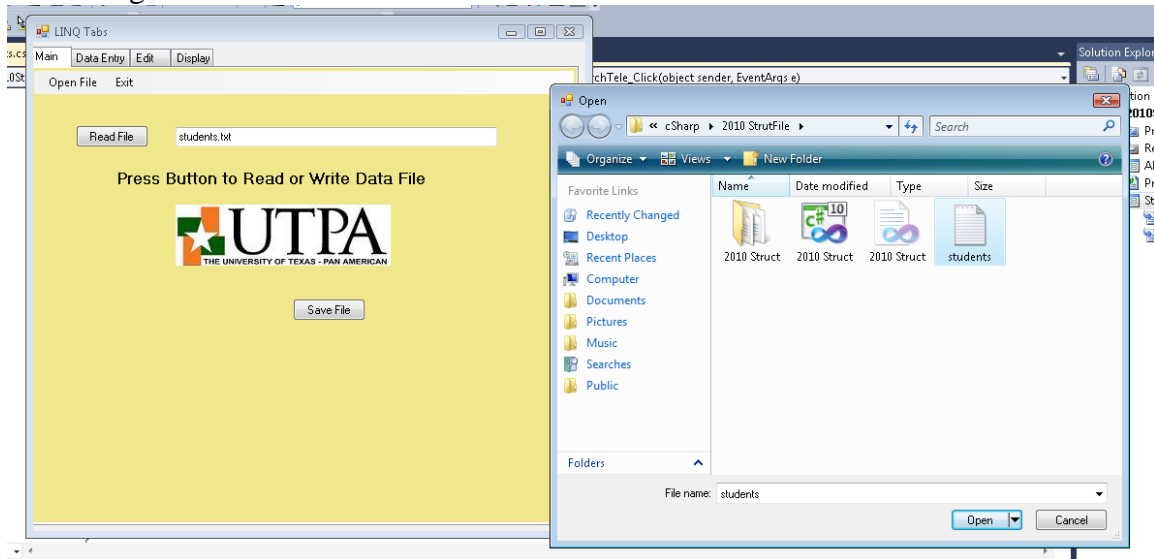
Instructor: Dr. Xiang Lian  
Due Date: See the course Web page

Purpose of this assignment:

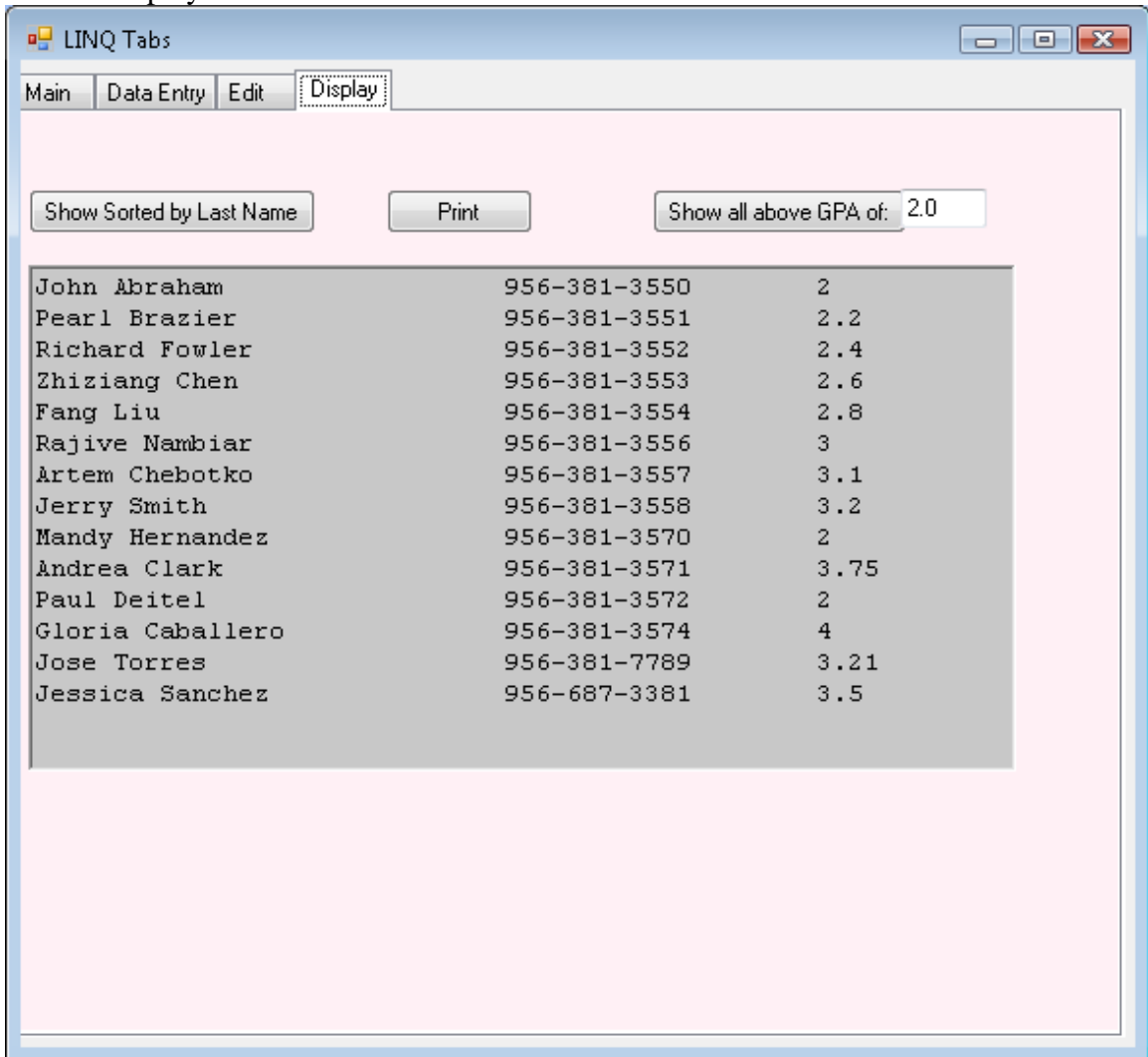
1. Work with files
2. implement exception handling
3. implement StringBuilder
4. Work with Tabs
5. Implement sorting and binary searching
6. Implement LINQ queries

Add tabs, exception handling, stringbuilder, and binary search to **Assignment #9**. Here are some screen captures of the program run.

## 1. Reading the file



2. The display tab shows what was read in.



3. Adding a record under the Data Entry tab. Here I added 2 records, Sam Abraham and Philip Abraham

The screenshot shows a window titled "LINQ Tabs" with four tabs: "Main", "Data Entry", "Edit", and "Display". The "Data Entry" tab is active. The form contains the following fields and controls:

<input type="text" value="Philip"/>	<input type="text" value="Abraham"/>
Student First Name	Last Name
<input type="text" value="956-888-8888"/>	<input type="text" value="2.00"/>
Telephone Number	GPA
<input type="text" value="15"/>	<input type="button" value="Add to List"/>
Number of Items in List	

4. Editing a record using the Edit Tab.

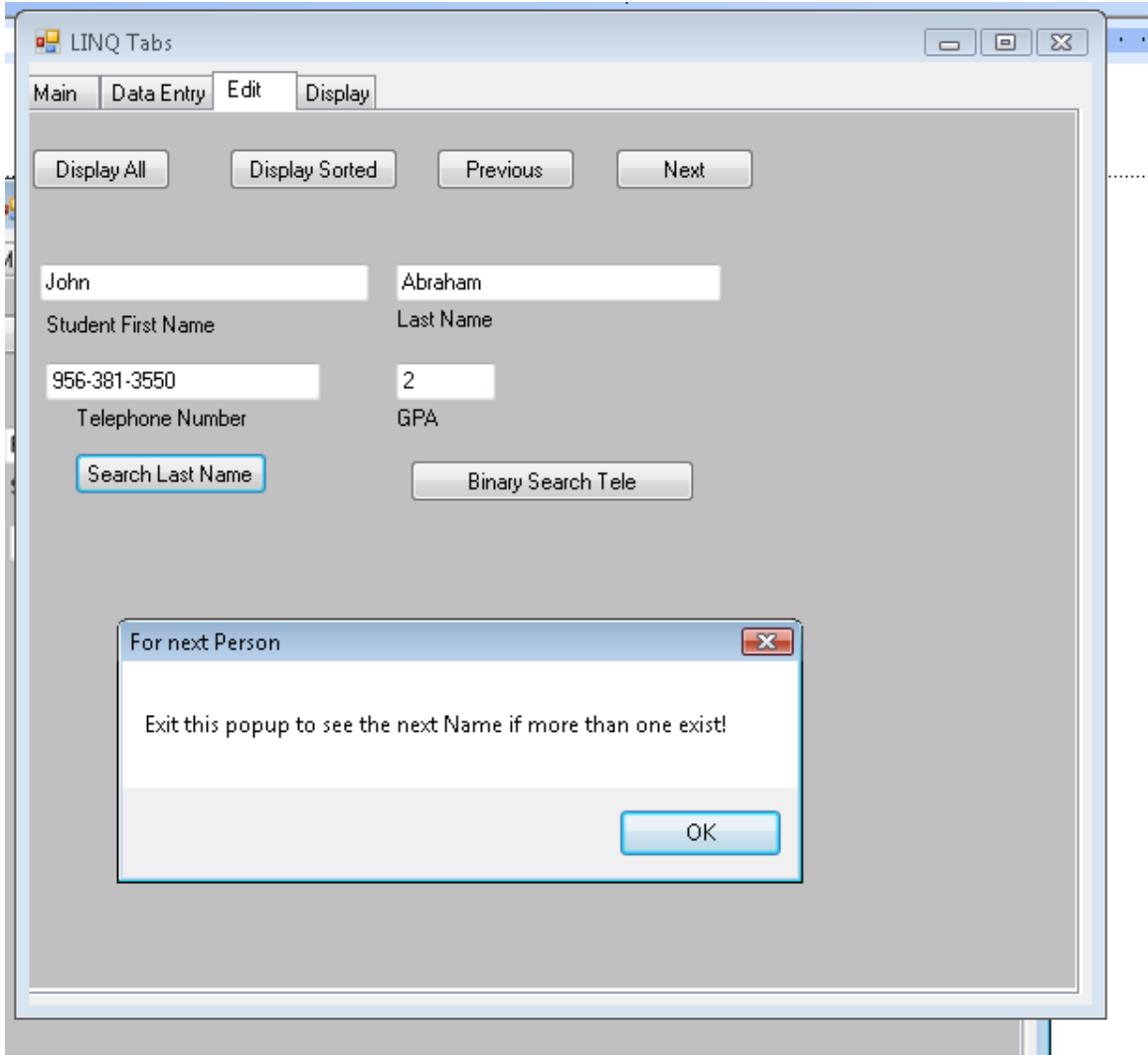
The screenshot shows a window titled "LINQ Tabs" with four tabs: "Main", "Data Entry", "Edit", and "Display". The "Edit" tab is active. At the top of the window are four buttons: "Display All", "Display Sorted", "Previous", and "Next". Below these are two text input fields: "Pearl" (Student First Name) and "Brazier" (Last Name). Underneath are two more input fields: "956-381-3551" (Telephone Number) and "4.0" (GPA). A green "Save Changes" button is positioned to the right of the GPA field. At the bottom of the form area are two buttons: "Search Last Name" and "Binary Search Tele".

I changed gpa of Brazier to 4.0.

- Using display All, and pressing the Next or previous keys displays all records, one at a time. Previous and Next buttons are Active or Inactive depending on if it is first or last item.

The screenshot shows a window titled "LINQ Tabs" with a menu bar containing "Main", "Data Entry", "Edit", and "Display". The "Display" menu item is currently selected. Below the menu bar, there are four buttons: "Display All", "Display Sorted", "Previous", and "Next". The "Next" button is highlighted in blue, indicating it is active. Below these buttons, there are four text input fields arranged in a 2x2 grid. The top-left field contains "Richard" and is labeled "Student First Name". The top-right field contains "Fowler" and is labeled "Last Name". The bottom-left field contains "956-381-3552" and is labeled "Telephone Number". The bottom-right field contains "2.4" and is labeled "GPA". To the right of the GPA field is a green "Save Changes" button. Below the input fields, there are two more buttons: "Search Last Name" and "Binary Search Tele".

6. Search for last name Abraham, should display all 3 Abrahams Entered, one at a time



7. Binary Search for 956-999-9999. To do this, implement your own bubble sort and binary search routine.

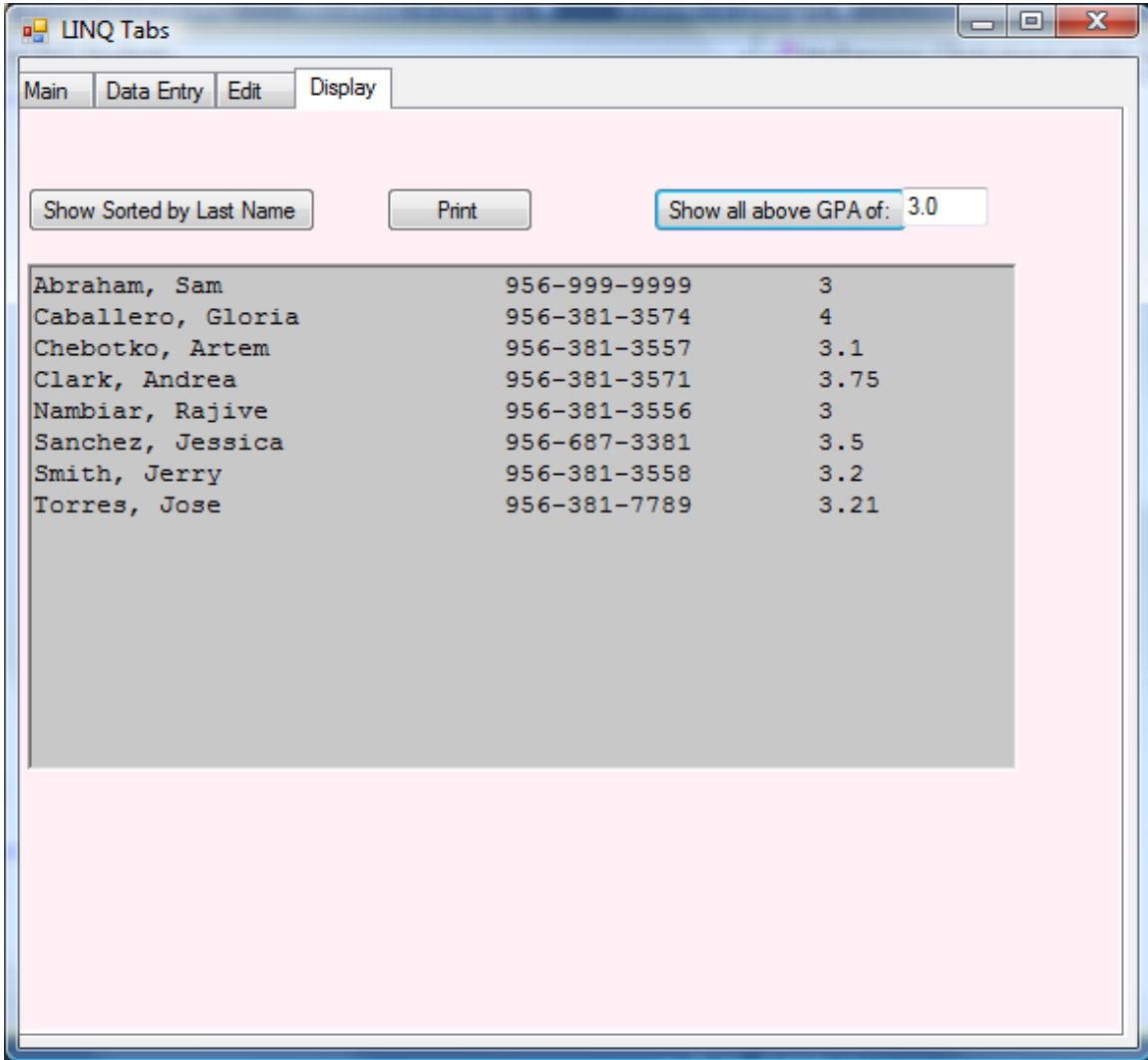
The screenshot shows a Windows application window titled "LINQ Tabs" with a menu bar containing "Main", "Data Entry", "Edit", and "Display". The "Display" menu item is currently selected. Below the menu bar, there are four buttons: "Display All", "Display Sorted", "Previous", and "Next".

The main area of the window contains a data entry form with the following fields and labels:

- Student First Name: Input field containing "Sam"
- Last Name: Input field containing "Abraham"
- Telephone Number: Input field containing "956-999-9999"
- GPA: Input field containing "3"

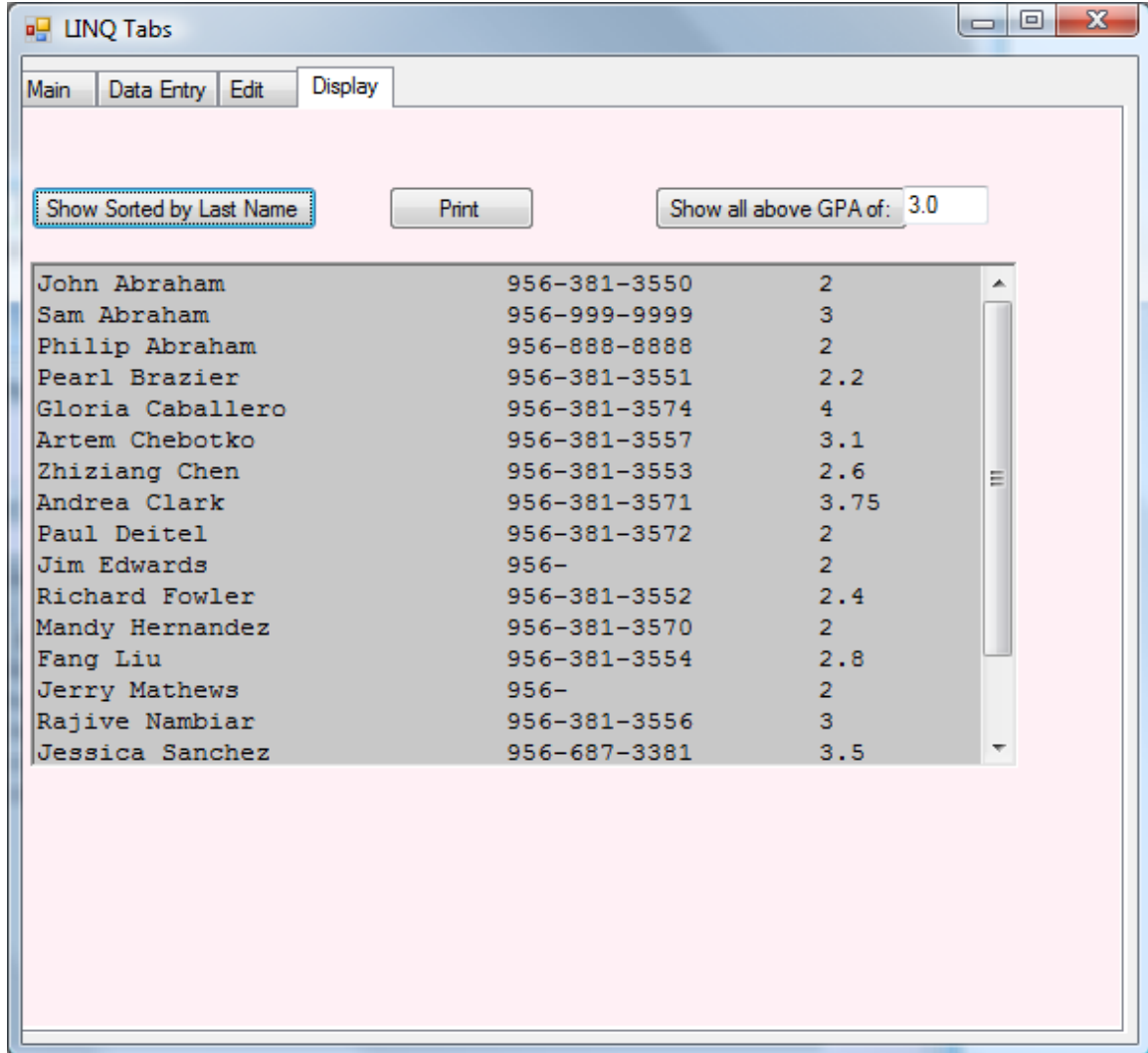
Below the input fields, there are two buttons: "Search Last Name" and "Binary Search Tele".

8. Using LINQ query show all student made above a certain GPA and display it in the display tab.





9. Show sorted by last name. I added two names at the end, Jerry Mathews and Jim Edwards. It is sorted and listed below:



Please submit:

1. Program listing, and
2. The screen captures (as given above)

Please submit all files in a compressed \*.zip file.

- Your program should begin with a comment section that would include the following:

PROGRAMMERS NAME: \_\_\_\_\_

STUDENT ID: \_\_\_\_\_

CLASS: \_\_\_\_\_ ASSIGNMENT #: \_\_\_\_\_

DATE DUE: \_\_\_\_\_ DATE TURNED IN: \_\_\_\_\_

- Upload the \*.zip file you created to the Blackboard. The subject of the submission must include the following information:  
[CSCI/CMPE 3328] [Assignment #] [Your Name Here] [Your Student ID Here]