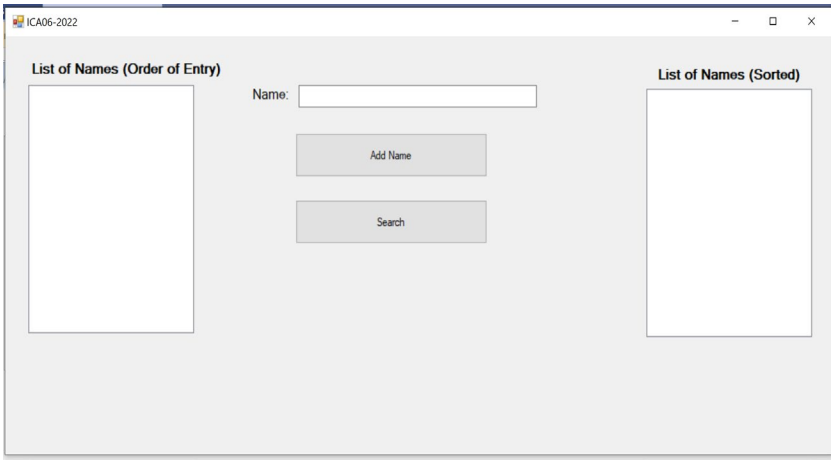
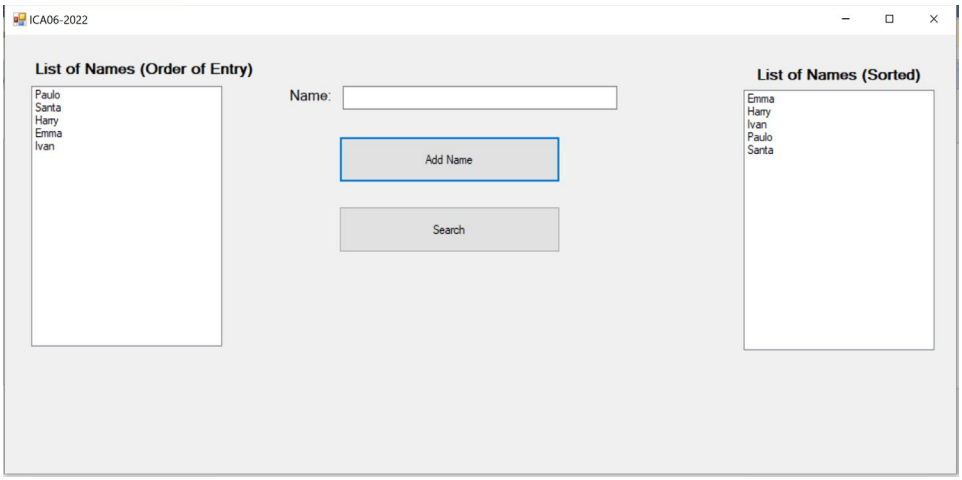
School of Applied Sciences And Technology
Department of IST
Program: CNT

CMPE1666 – ICA 11-Binary Search

Create an application with the controls shown below. Your application must also create a List of strings. Additionally, the program must define a method **BinarySearch** that uses a recursive binary search technique to search a name in a list of strings.



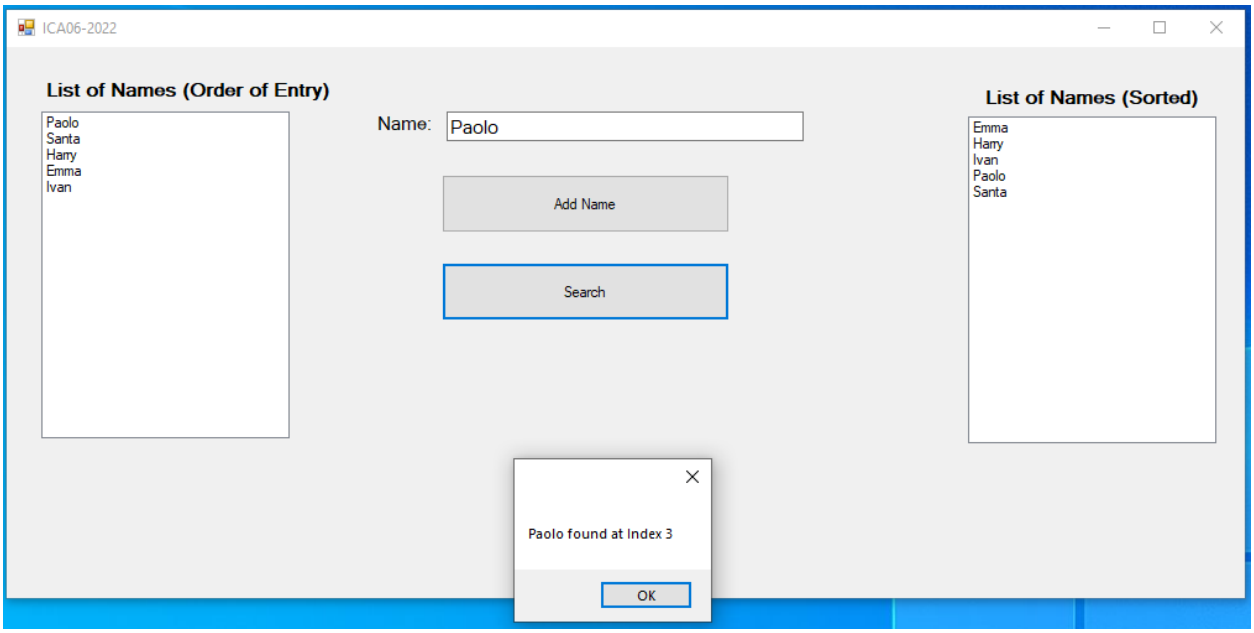
When the user clicks on the "Add Name" button, if the Name textbox is not empty, the name is added to the list box on the left. At the same time the name is added to the list object. The list is sorted (using the built-in Sort method of the List class) and the sorted version is displayed into the list box on the right. After adding the name to the list boxes the textbox is cleared.

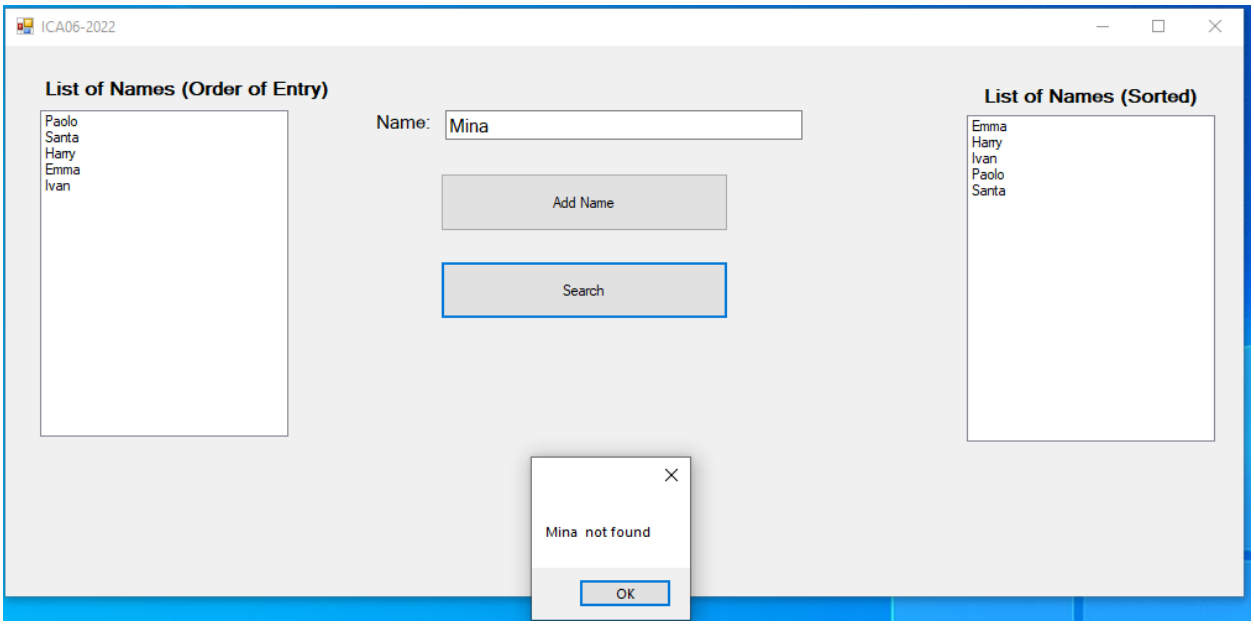


When the user clicks on the **search** button, if the name textbox is not empty, the program searches the name in the list, using the recursive binary search method that you have defined. If the name exists in the list, a message box will pop up and display the name as well as the index where it was found. If the name does not exist, a message box will still pop up and display a message accordingly. In each case, after the user clicks on "OK" in the message box, the text box should be cleared.

Ensure that you name your UI components appropriately.

Searching





Rubric – Total Marks: 30

Item	Marks	Penalties
UI Design • UI is as directed. • Tab Order is Correct • All labels appropriate	 3 3 2	Inappropriate control names: -3
Code Design and Implementation • Name appearing in initial order in left list box • Name being added in sorted order in listbox on right • On Clicking on "Search" button, binary search is performed and message box displayed. • Message box displays both name and index • "Name not Found" message displayed for non-existing names • Textboxes cleared after adding name to list boxes or after name is searched	 2 2 6 2 2 2	Binary Search Technique not used: -6 Recursion not used: -6
Documentation: • Programmer Block • Well commented code • Appropriate Variable Names • Proper spacing between blocks of code • Control names are consistent and appropriate.		Missing components of documentation: -1 to -6