**Data Structure Lab, Final Term Assignment**

Create your own **STL** library as ***mySTL.h***

*Your assignment is to create a* ***mySTL.h*** *header file in C++ that will contain these* ***templated classes and methods****.*

1. SingleLinkedList class
   1. *insertAtLast*
   2. *insertAtFirst*
   3. *insertAtAnyPos*
   4. *insertBeforeElement*
   5. *deleteElementByValue*
   6. *deleteAtPos*
   7. *displayList*
2. DoubleLinkedList class
   1. *insertAtLast*
   2. *insertAtFirst*
   3. *insertAtAnyPos*
   4. *insertBeforeElement*
   5. *deleteElement*
   6. *deletePos*
   7. *displayList*
3. Stack class (use linked list instead of array)
   1. *push*
   2. *pop*
   3. *top*
4. Queue class (use linked list instead of array)
   1. *enqueue*
   2. *dequeue*
   3. *front*
   4. *rear*
5. BST class
   1. *insertIntoBST*
   2. *searchInBST*
   3. *displayInorder*
   4. *displayPreorder*
   5. *displayPostorder*

Finally demonstrate the use of your mySTL library in a demo.cpp file.

You must submit two cpp files ***1.*** ***mySTL.cpp*** and ***2. demo.cpp***