Insert in Order

COP 4530 Programming Project 1

Instructions

For Programming Project 1, the student will implement a doubly linked list to insert the integer data in increasing order and convert a list to a string.
Any projects that use the C++ Standard Library Lists or other sources to implement the linked list will receive a zero.

Abstract Class and Files

Class IntDLList

```
void addToHead(int);//return its value
void insertInOrder (int);
void addToTail(int);
int  deleteFromHead(); // delete the head and return
its value;
int  deleteFromTail(); // delete the tail and return
its value;
void deleteNode(int);
bool isInList(int) const;
void printAll() const;
string addToString() const; //This method returns the
string of the ordered integers
```

Examples

Below are some examples of how your code should run. The test file can also be used to get an idea of how the code should run.

```
IntDLList myList; // is empty
myList.addToHead(8); // list: 8
myList.insertInOrder(3); // List: 3 8
myList.addToTail(9); // List: 3 8 9
```

Hints

When implementing the add`ToString` method, you need to include string, `sstream` and `iomanip`.

Rubric

Any code that does not compile will receive a zero for this project.

Criteria	Points
Project uses a student implemented Doubly Linked List	10
Code uses object oriented design principles (separate headers and sources, where applicable	6
addToString function should return string list of integers	7
Removal of elements from an empty List should throw	7
Project should have destructor	3
Code is well documented	4
All files should be zipped	3