EECE330 Assignment 3

You are to build a doubly linked list of the book objects that was introduced in assignment2. First you build the list by using the function InsertAtHead and then you have to run the three following functions:

1. Sort a list according to ISBN number without using any temporary lists. You can simulate the bubble sort that we use on arrays.
2. Merge an unsorted list into a sorted list according to ISBN numbers.
3. Print backwards the objects in the list

Write a main program to create two unsorted doubly linked lists. Call the sort function to sort one of the lists then call the merge function which takes the two lists and insert the unsorted list into the sorted one. Finally, call the print function to check your results.

A sample run would look as follows:

list1

ISBN 777

ISBN 555

ISBN 999

ISBN 333

list2

ISBN 444

ISBN 666

ISBN 222

list1 sorted

ISBN 999

ISBN 777

ISBN 555

ISBN 333

list1 after merging list2

ISBN 999

ISBN 777

ISBN 666

ISBN 555

ISBN 444

ISBN 333

ISBN 222

Print list1 999 - 777 - 666 - 555 - 444 - 333 - 222