CSCI 232 Data Structures & Algorithms
OO Design Exercise: Stack and Queue DUE: Wednesday, October 11

Consider your SortedList and LameLinkedList classes. Then, review the typical operations of a stack and queue:

Stack:

- Pop – removes the top node, returns the value
- Push – adds a node to the top of the stack
- Peek – returns the value of the top node without removing it from the stack

Queue:

- Dequeue – removes the node at the front of the list, returns the value
- Enqueue – adds a node to the end (back) of the list
- Peek – returns the value of the front node without removing it from the queue

You can see that the stack and queue are specialized versions of the linked list(s). Create an inheritance relationship between stack and one of the linked lists, and queue and one of the linked lists. Write a .h file for each, indicating inheritance. Use comments to describe what each of your member functions will do (i.e. which of the parent classes methods they will call.)

Submit your .h files and a UML sketch of all the classes and their relationships