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Asst 1: Sorted List
Systems Programming, Spring 2016

SLCreate:
This method dynamically allocates data for a pointer to a SortedList struct. This is done in unit time: O(1).

SLDestroy:
This method frees all memory(the nodes and the list ptr) from the list. This is done by looping through each node in 0(n) efficiency.

SLInsert:
The method inserts the value into the list through linear search. Nodes are dynamically allocated and pointers redirected. The efficiency of the algorithm is O(n) + O(1) = O(n).

SLRemove:
The method uses a linear search to find the value and moves pointers around. Pointers are redirected. Again, the efficiency of the algorithm itself is O(n) + O(1) = O(n).

SLCreateIterator:
This method allocates data for a pointer to a SortedListIterator struct. This is done in unit time: O(1).

SLDestroyIterator:
This method frees the memory in the iterator. This is done in unit time: O(1).

SLNextItem:
This method returns the data of the next item in iterator. This is done in unit time: O(1).

SLGetItem:
This method returns the data of the current item in iterator. This is done in unit time: O(1).