Kevin P Barrett and Michael Shafran
CS 214 Spring 2016
Assignment 1: Sorted List

Readme

Big O Analysis:

Both SLCreate and SL Remove are constant time.

SLDestroy is O(n) worst case, due to the iteration over each element.

SLInsert is O(n) worst case, in case it has to insert something at end of list every time.

SLNextItem is O(n) worst case, for the case that it might have to cycle through every item if they all met the view criterion.

Implementation:

The SLRemove function is supported on already created lists, but adding is not. The iterator iterates one way through the list, and the list is not circular, so if the case were that a value that would be placed "above" the current location in the list were inserted post-instantiation, it would be unable to be accessed anyway. For this reason we have decided not to support adding to a list already being accessed by an iterator.