

Commentary

The computation complexity of the insertion/deletion and quit methods are $O(1)$ and $O(n)$ for the edit, print, and search methods. I feel as though using linked lists for implementing a line editor is practical. Some advantages of using a linked list is that they have the ability to grow as needed and keep elements in order, making it much easier to find an item. Also, inserting and removing items results in a constant time complexity; it is easy to insert and delete in that the address just has to be updated afterwards. However, using linked lists also has its disadvantages. More memory is required to use a linked list; not only do the items have to be stored, but so does the pointer. It is also difficult to access a node at a specific position because you have to step through every node before it first, traversing them along the way. From doing this assignment, I learned how to properly implement my own linked list and finally use the `pop()` function correctly. I also learned how convenient it was to use `stringstream` to convert between strings and other types. If I had to start over, I would plan my code on paper first and give myself more time to complete the assignment; this would probably help to prevent minor errors and construct a cleaner code.