

What is the computational complexity of the methods in the implementation?

insertEnd is $O(1)$

edit is $O(N)$

insert is $O(N)$

print is $O(N)$

delete is $O(N)$

search is $O(N)$

All of the functions that are $O(N)$ use only one for loop that iterates over the list. insertEnd, however, references the “end” node and appends to that, making it $O(1)$.

Your thoughts on the use of linked lists for implementing a line editor. What are the advantages and disadvantages?

A linked list is bad at finding elements at a specific index, so the edit command suffers greatly. However it is efficient in appending and inserting or deleting information into/from the list.

What did you learn from this assignment and what would you do differently if you had to start over?

I learned that it is probably better to check for the line number within the for loop and run the code there. What I did was try to iterate to the node in question and perform the operation after it was found, outside of the for loop.