

Reflection: I learned to not give up, no matter how frustrating it may be. I also shockingly found C to make the concept of linked lists much much easier to grasp and even write, the past week we did nearly the same thing in C and C was by far the easier challenge. When it comes to these difficult tasks, its best to segment the "I don't know what I don't know" into specific parts. It was vital to me to be able to look back at the code I wrote in C to be able to complete this assignment.

2. I believe the advantages of using linked lists in the context of how we applied it to creating todo lists is being able to add and remove a task. In a normal array you need to shift everything and it becomes inefficient. However, the downfall is traversing the linked list because you need to go through each one.

3. I'm sure it could have been. We could have used an array. We could have even used a binary search tree I assume. This is just a specific data structure we incorporated.

4. Extensions:

Added a range of additional methods. Using recursion to traverse through the linked list. There were many additional methods: adding node was a requirement. However, I took this to the next level. Being able to add a node to the front, back or any position wanted. Removing a node was also a requirement and I also took this to the next level by being able to remove nodes at specific locations, front or back. I also added a method to find if a task even existed in the linked list and to return its position if found, can see this being especially useful in larger data sets. I added a find the last node method too, however I believe this is what makes linked lists the worst, trying to navigate to the very back requires starting from the front.

5. Based on the rubric I believe this deserves a 105%. I did not use the code from the demo videos and even wrote some additional methods using a loop AND the required recursive way. I demonstrated knowledge of how a linked list works and its down falls.

I understand that my learning is dependent on individual effort and struggle, and I acknowledge that this assignment is a 100% original work and that I received no other assistance other than what is listed here.

Acknowledgements and assistance received:

I did not use generative AI in any form to create this content and the final content was not adapted from generative AI created content.

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