

File: README.md

This file contains the code testing description and answers to conceptual questions.

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Sources of Help: N/A

//Makefile

I have not edited the Makefile while running my code. However, I have modified the main method under each file while testing out my code by passing in different parameters to figure out if the output matches my expectation.

//Conceptual Questions

The fixed overhead time should always be considered. There're only two threads but we have 8 threads to complete. We can only complete two threads at a time given the condition. Thus, I suppose that the total time is the overhead + 4 charTime.

//Pointer Questions

Using pointers to build MyStringBuilder allows us to modify the string itself (like insert, delete, etc) simply by changing the pointer from each node, instead of discarding the initial string and then create a new one. My thoughts on how to reuse the nodes are to modify the CharacterNode class. Currently, it only contains a char letter and a pointer. I'd like to add something like an integer count so that I would know how many times it's pointing back to itself. Once the counting is over, it could thus move on to the next node.

//Design Decision

I used a quite lot of while loop for MyStringBuilder because it's relatively

more straightforward at this stage personally.

The advantage of using a recursive helper method is that it might be more concise in terms of context, since by calling the recursive method we don't need to create a lot of loops to traverse down the string everytime we need to do so. However, recursion does not necessarily make it more efficient. On the other hand, by using loop, it's more straightforward, but by doing this we might be creating a relatively longer method.