Project report for Project one:

How I optimized space was by using a singly linked list instead of a doubly linked list. The reason that I did this was because I wanted to minimize the amount of memory that I was taking up. Singly linked lists only have one forward pointer while a doubly linked list uses next and previous. By eliminating the previous pointers I would be saving memory. That is how I am optimizing my program. I optimized time efficiency by coding my functions using while loops instead of for loops because I understood and thought that it would make the program move faster. This reflects big O(n^2) when it comes to while loops. This is what allowed for the algorithm to perform in an effective way because the space and time of my code executed in a way that neither was too slow or took up too much space.

The Traversal count for the MTFList when using one of the txt files was 3, while for the Ordered list it was 1. I used a count method in order to get the traversal count for each list. This was very helpful and definitely saved time because all I did was add a count method in my move to front method. I was not able to figure out how to do the traversal time method to see how fast the list traverses in nanoseconds.