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Project 1 write up

I found this project to be very rewarding and interesting. It solidified my understanding of linked lists and their implementation. Going into the project I believed that I understood the nuances of linked lists, however I quite quickly realized this was not the case. At the beginning of the project I did not fully understand what was meant by using the existing implementation in the List file to create a linked list. This lead to me attempting to complete the project using other java files such as LinkedStack.java and StackInterface.java which is obviously not what is intended. Once I understood how to approach the problem correctly it was easier to see what needed to be done to complete it. Another issue that I ran into over and over (and over) was not fully understanding the difference between using .setNext() versus setting a node equal to another node. That lack of understanding on my part created issues in every method that I had created. The fortunate part about having that issue is that once I spoke with you and properly understood the difference between the two it was relatively easy to take that knowledge and alter my existing (incorrect) methods to have the correct functionality. A third difficulty that I had with this project was remembering that anytime I was inserting into, removing from or clearing the list that I had to increment/decrement/zero out the list counter. One aspect of the project that I particularly enjoyed was using code that we had just written to be more efficient, an example would be using the remove(index) method within remove(string) to save time and effort.

I found that due to the complexity of the project that it was debugging intensive, which I also learned is not my strong suit. This is useful information in and of itself because it tells me that I cannot rush these projects and need to leave a significant amount of time to track down the smaller syntax or logical errors. The project taught me that in regards to debugging it is helpful to understand when errors are appearing. I learned to move through the mp3 player file to see when my code was being called on to give me a clue as to where the error could be. Another debugging trick that I learned was if a method is being called within another method and there is an error in both it the error is most likely in the method being called. I had this issue in the contains function, I was trying to use the contains function within remove(string) to determine if what was being removed was even in the list. I was getting an error in both the contains function and the remove function which let me know that my error was most likely in the contains function, which it was. A refreshing aspect of this project was physically seeing the java program created and have the mp3 player appear (and play beautiful music) instead of simply getting a console output. Overall I found the project to be a great learning experience that locked down my understanding of linked list and their potential applications.