Project: Linked List Documentation

This project is a double linked list that allows the user to do various functions. The main point of the project is to create a blank linked list that the user can then add, delete and find nodes on. The user can also choose to run a premade list of commands for a premade linked list. This allows the user to customize the list and then test to see if it works. There is also a menu that allows the user to chose what option that they want to take.

The program starts off with the customary visual studio opening includes of iostream and using namespace std. After that it makes a struct node that encases the data, and next/prev node functions. After that is a LinkedList class that has the head/tail under private. In the public of the LinkedList it has multiple functions. The first makes the head and tail null. The next is a void that takes data that has been input and then runs it through a temporary node to implement into the list at the end. The next function is the show that takes the entirety of the LinkedList and runs it through a temp node to print them on to the screen. The next function takes the number input and looks through the list till the number matches the node number. After that it deletes that node while reconfiguring the list so that all other numbers are still shown. The last function takes the number chosen and looks for that number in the list order, if it is there it displays it if not it prints out data not found.

In the cpp file is the main function that has variables for inputted data and a new linked list for the user. It also welcomes the user and has a checkpoint that can be looped back to. It then calls the user command function that gives the choices in the main menu. After that it asks for a number input and then asks for input/runs a function depending on the number given. Choices are added to list, search for a spot-on list, search for the min/max data in the list, delete from the list, show the entire list, run the automated test function or exit from the system. The other main function is the test function that runs through a set if predetermined functions and values.

Example for delete test case depending on if the node wanting to be deleted is head, tail, both or neither

