**Lab Report 04**

Problem

Given a series of tests, the task is to create a doubly linked list as to satisfy the conditions of each test. Additionally, the last element should match the one given and print to the console after the tests are passed.

Solution Description

The doubly linked list adds and deletes list items as needed to satisfy the conditions of the test. When needed, the list nodes are reset within the list itself to avoid null values being reached.

Problems Encountered

When printing the final list of values, it would return an error when printing the final element. To fix this, I reset the nodes every time the gotoEnd() method was called in order to avoid reaching null values.

4. It removes it from memory

5. Sacrifice random access for easily growable and shrinkable data

6. Better way to access a bigger amount of nodes but more convoluted methods

7. The program will run indefinitely because it will print a single node repeatedly. Change the method to print temp data values (temp.data) and move the temp node forward afterwards (temp = temp.link).

8. The method will run indefinitely because the continue statement skips the advancement of the temp node. If the temp node’s data is null, advance the node before skipping the iteration of the loop.

9. The method will run indefinitely because the continue statement skips the advancement of the temp node. Before skipping to the next iteration, advance the temp node instead of the head.

10. The temp node would not exist outside the scope of the loop, so it effectively doesn’t do anything. Thus, use the head node and advance it for each iteration of the loop instead. This will delete each previous node from memory because its link has been removed.