

**Objective:**

Work with doubly linked lists and iterators.

For this assignment, you will be creating an iterator for your doubly linked list developed in the previous assignment.

Create a bidirectional iterator that allows the user to navigate the doubly linked list by using the ++ and -- operators. Your iterator should also implement the following functions:

- Iterator constructor similar to the one discussed in class
- Overload the both the prefix and postfix ++ operators
- Overload the both the prefix and postfix -- operators
- Overload the == operator
- Overload the != operator

To test your program, run the provided tests using the provided Makefile. Make sure you use the same function names as outlined above and in the original code.

```
make run_tests
```

**Grading:**

**Programs that contain syntax errors will earn zero points.**

**Programs that use global variables, other than constants, will earn zero points.**

**31 Points:**

- (25 points) for the iterator class. The iterator works properly and passes the unit tests
- (6 points) all the previous doubly linked list functions work as described in the previous assignment

**4 points:** Programming Style & documentation.

- All files must have your name, date, and a description of their content
- All functions must be documented in the header file using the style outlined in the coding style below

Follow the coding style outline on GitHub:

<https://github.com/nasseef/cs/blob/master/docs/coding-style.md>

**Submission:**

Submit a link to your repository on Blackboard before the deadline.