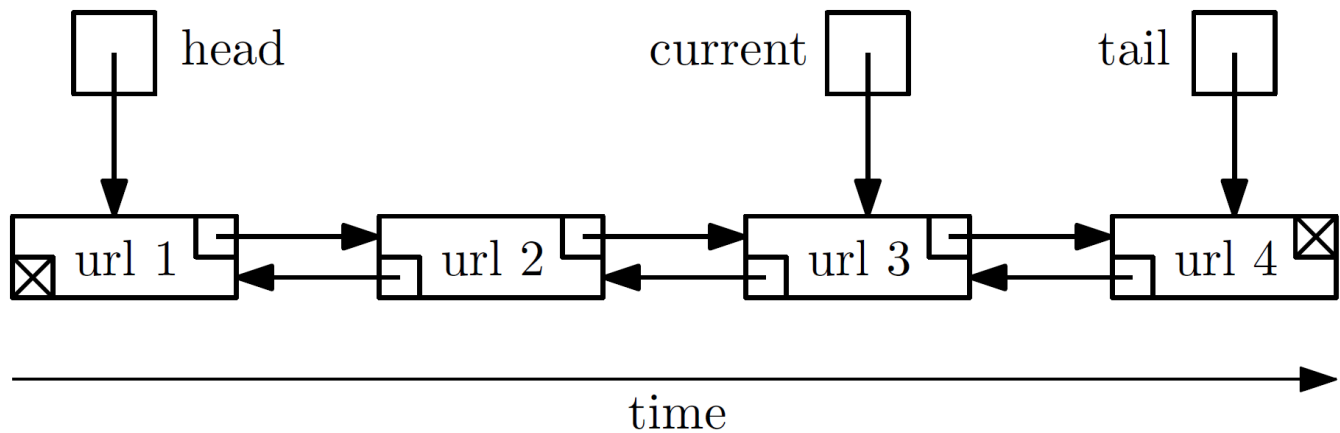


**Homework 8:** Doubly linked-lists**Due Date:** 3/31/23

In a previous homework, you implemented the “history” feature of a web browser using two stacks. These stacks were part of the C++ `<stack>` library, written by someone else. Here you’ll roll your own implementation from scratch using just one **doubly linked list**.



**Note:** In this example the URLs were entered in the order indicated by the time arrow (i.e., url1 was entered first, url2 was entered next, and so forth).

The following files have been given to you:

1. A C++ header file (`browserhistory.h`) declaring the **BrowserHistory** class.
2. A C++ source file (`main.cpp`) containing a `main()` function with tests.

Create new C++ source file named **browserhistory.cpp** that implements the class declared in `browserhistory.h` so that `browserhistory.cpp` and the provided files compile into a program that runs with no failed tests.

Submit just the source code of **browserhistory.cpp**. You don't need to submit the `main.cpp` nor the header file because I will use my own `browserhistory.h` and `main.cpp` files to evaluate your `browserhistory.cpp` file.

Review the examples discussed in class and the textbook to get an idea of what you need to do. Analyze carefully the tests because that will help you understand how the methods that you need to create work.

Do not hesitate to use the corresponding topic in Discussions to post your questions/doubts about this assignment. I will reply as soon as I can.

**IMPORTANT:**

Make sure your program compiles and executes in full (it should pass all the tests included in main()).

**You must submit ONLY ONE solution per team.**

Your program must be well commented, use meaningful identifiers, and use indentation to improve its readability.

Your program must have the following comments at the top:

```
//*****  
// Team #                CSCI 2380                Spring 2023                Homework  
# 8  
// First and Last Name  
// First and Last Name  
//  
//*****
```

**When done, submit your solution through Blackboard using the “Assignments” tool. Do Not email it.**

Paste the **link** to your solution and the **source code** of browserhistory.cpp in the textbox corresponding to **Text Submission** (click on the **Write Submission** button) before you click on Submit.

The following is the basic criteria to be used to grade your submission:

You start with 100 points and then lose points as you don't do something that is required.

- 11: Incorrect implementation of BrowserHistory(string default\_url)
- 11: Incorrect implementation of current\_url()
- 11: Incorrect implementation of go\_to\_url(string url)
- 11: Incorrect implementation of back()
- 11: Incorrect implementation of can\_go\_back()
- 11: Incorrect implementation of past\_url\_count()
- 11: Incorrect implementation of forward()

- 11: Incorrect implementation of `can_go_forward()`
- 11: Incorrect implementation of `future_url_count()`
- 20: Program crashes when executed
- 5: Unnecessary statements in your code
- 10: Missing/too few comments
- 5: Your solution produces memory leaks (doesn't delete dynamic variables created with the new operator)
- 40: Program does not compile
- 20: Incorrect/missing source code
- 20: Incorrect/missing link to your Repl.it solution
- 100: No team contribution
- 100: The code submitted is not your creation (you got it from a web site or another person)
- 10: Late
- 100: No submission.
- 101: Incorrect submission. Talk to me please.