

Labwork 3

You are given a class, `DLLLike`, which is a Doubly Linked List-Like structure (hence the name). The class is defined in `dlllike.h`. The `DLLLike` class acts just like a Doubly Linked List from the outside; it supports inserting and removing elements from head and tail. It also has a function which counts the number of occurrence for a given element.

However, there is a catch: The `DLLLike` class doesn't actually have a linked list inside. Instead, it stores elements using two STL stacks.

You will see that the implementation for member functions *`addToHead`* and *`addToTail`* are already provided. Your task is to complete the implementations for the unfinished functions *`deleteFromHead`*, *`deleteFromTail`*, and *`count`*.

- **`deleteFromHead`**: removes the first element from the structure and returns it.
- **`deleteFromTail`**: removes the last element from the structure and returns it.
- **`count`**: this function is provided with a parameter, *`el`*. This function returns the number of occurrences of *`el`*. In other words, it will count how many elements are equal to *`el`*.

There is also definition for the member function *`printAll`*. Implementing this function is not mandatory, and you will not get any credit for implementing it, but it may become useful for debugging purposes if you do so. It will also serve as an exercise for the nerds among you.

PLEASE READ THE FOLLOWING RESTRICTIONS CAREFULLY:

- You are not allowed to make any modifications to `dlllike.h`.
- Implement each function in its own file: e.g. *`deleteFromTail`* in `deletefromTail.h`, *`count`* in `count.h` and so on.
- You are not allowed to use any container other than the *`front`* and *`back`* stacks in the class definition. This means you can't use any additional arrays, linked lists, vectors, stacks, self-implemented abominations, or anything else. Local variables (not arrays) and counting elements is allowed though.
- The main function provided to you is for testing purposes only. Your implementation should work fine with any other test case given.
- You will get partial credit for implementing a subset of functions, but you will not get any credit for submitting a function which fails to work under some test cases.
- **PLEASE DO NOT PRINT ANYTHING IN THE FUNCTIONS**