

README FILE  
Assignment 2  
CS 303

This program features a singly linked list and a stack implemented using C++. It includes the following functionalities:

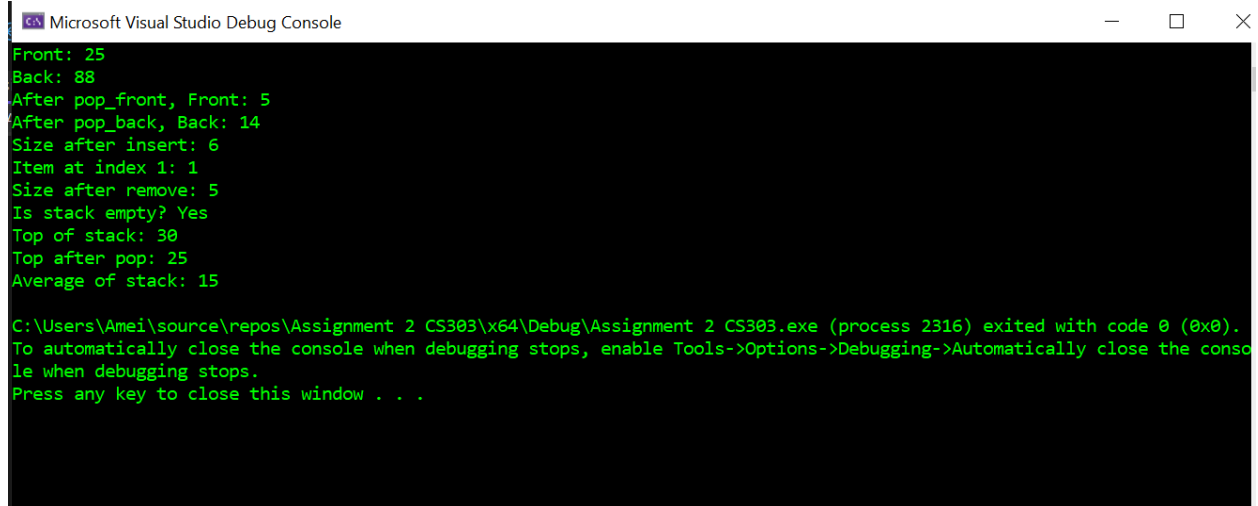
Single\_Linked\_List Class Functions:

- push\_front: Adds an item to the front of the list.
- push\_back: Adds an item to the back of the list.
- pop\_front: Removes the item at the front.
- pop\_back: Removes the item at the back.
- front: Retrieves the item at the front.
- back: Retrieves the item at the back.
- empty: Checks if the list is empty.
- insert: Inserts an item at a specific index.
- remove: Removes an item at a specific index.
- find: Returns the index of a specified item.
- size: Returns the current number of items in the list.

Stack Class Functions:

- push: Adds a value to the top of the stack.
- pop: Removes the top value from the stack.
- top: Retrieves the top value without removing it.
- isEmpty: Checks if the stack is empty.
- average: Calculates the average of the values in the stack.

To run the program, ensure you have a C++ compiler installed. Below is an example of the output:

A screenshot of the Microsoft Visual Studio Debug Console window. The window has a title bar with the Visual Studio logo and the text "Microsoft Visual Studio Debug Console". The console output is as follows:

```
Front: 25
Back: 88
After pop_front, Front: 5
After pop_back, Back: 14
Size after insert: 6
Item at index 1: 1
Size after remove: 5
Is stack empty? Yes
Top of stack: 30
Top after pop: 25
Average of stack: 15

C:\Users\Amei\source\repos\Assignment 2 CS303\x64\Debug\Assignment 2 CS303.exe (process 2316) exited with code 0 (0x0).
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.
Press any key to close this window . . .
```