

Answer on Question #46914, Programming, C++

Problem.

Write a program that reads a line of text, changes each uppercase letter to the lowercase, and places in a queue and onto a stack. The program should then verify whether the line of text is a palindrome

Solution.

Code

```
#include <iostream>
#include <string>
#include <cctype>
#include <stack>
#include <queue>

using namespace std;

int main() {
    string line;
    // Input
    getline(cin, line);

    // Convert word to uppercase
    for (int i = 0; i < line.length(); i++) {
        line[i] = tolower(line[i]);
    }
    cout << line << endl;

    // Place line in a queue and onto a stack
    stack<string> myStack;
    queue<string> myQueue;
    myStack.push(line);
    myQueue.push(line);

    // Verify whether the line of text is a palindrome
    bool isPalindrome = true;
    for (int i = 0; i < line.length(); i++) {
        isPalindrome *= line[i] == line[line.length() - 1 - i];
    }

    if (isPalindrome) {
        cout << "The line is palindrome!";
    } else {
        cout << "The line isn't palindrome!";
    }

    return 0;
}
```

Result

```
Hello OLLEH  
hello olleh  
The line is palindrome!  
Process returned 0 (0x0)   execution time : 7.027 s  
Press any key to continue.  
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```