

//CODE:

```
#include <iostream>

#include <string>

#include <cctype>

using namespace std;

void printOriginalAndReversed(const string& str) {

    cout << "Original String: " << str << endl;

    cout << "Reversed String: ";

    for (int i = str.size() - 1; i >= 0; --i) {

        cout << str[i];

    }

    cout << endl;

}

bool isPalindrome(const string& str) {

    int left = 0, right = str.size() - 1;

    while (left < right) {

        while (left < right && !isalnum(str[left])) left++;

        while (left < right && !isalnum(str[right])) right--;

        if (tolower(str[left]) != tolower(str[right])) {

            return false;

        }

        left++;

        right--;

    }

    return true;

}

int main() {

    string input;
```

```
int choice;

cout << "Enter a string: ";
getline(cin, input);
cout << "Choose an option:\n";
cout << "1. Print original and reversed string\n";
cout << "2. Check if the string is a palindrome\n";
cout << "Enter your choice (1 or 2): ";
cin >> choice;
if (choice == 1) {
    printOriginalAndReversed(input);
} else if (choice == 2) {
    if (isPalindrome(input)) {
        cout << "The string is a palindrome." << endl;
    } else {
        cout << "The string is not a palindrome." << endl;
    }
} else {
    cout << "Invalid choice. Please select 1 or 2." << endl;
}
return 0;
}
```

//OUTPUT:

```
Enter a string: GOOD MORNING
Choose an option:
1. Print original and reversed string
2. Check if the string is a palindrome
Enter your choice (1 or 2): 1
Original String: GOOD MORNING
Reversed String: GNINROM DOOG
```

```
Choose an option:
1. Print original and reversed string
2. Check if the string is a palindrome
Enter your choice (1 or 2): 2
The string is not a palindrome.
```