



PIMPRI CHINCHWAD EDUCATION TRUST'S.  
**PIMPRI CHINCHWAD COLLEGE OF ENGINEERING**  
(An Autonomous Institute)

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**Class : SY BTech**

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**Semester : I**

**Name of the student: Hariom Shrikrishna Gundale**

**PRN : 124B1B036**

**Department: Computer Engineering**

**Division : A**

**Course Name : Data Structures Laboratory Course**

**Code:BCE23PC02**

**Completion Date : 6/10/2025**

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## Assignment No. 7

**Problem Statement:** Write a program to check whether a string is a palindrome using stack operations.

**Source Code :**

```
#include <bits/stdc++.h>
using namespace std;

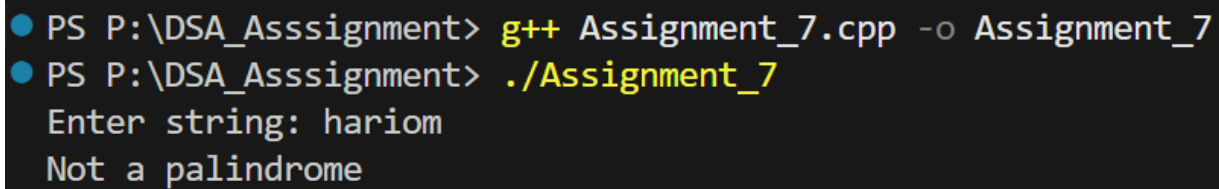
int main()
{
    string str;
    // mam,madam,racecar,maam
    // list<char> ll;
    // SLL ll;
    stack<char> st;
    cout << "Enter string: ";
    getline(cin, str);
    int n = str.size(), i = 0;
    while (i < n / 2)
    {
        st.push(str[i]);
        // cout << st.top()<<endl;
        i++;
    }
    // cout << "out of loop" << endl;
    if (n % 2 != 0)
    {
        i++;
    }
}
```

```

        // cout << str[i] << endl;
    }
    while (i < n)
    {
        // cout << st.top() << " " << str[i]<<endl;
        if (st.top() != str[i])
        {
            cout << "Not a palindrome" << endl;
            return 0;
        }
        st.pop();
        i++;
    }
    cout << "Is Palindrome" << endl;
    return 0;
}

```

### Screen Shot of Output :



```

PS P:\DSA_Asssignment> g++ Assignment_7.cpp -o Assignment_7
PS P:\DSA_Asssignment> ./Assignment_7
Enter string: hariom
Not a palindrome

```

### Conclusion:

Thus, we have successfully implemented the C++ program to check whether a string is a palindrome using stack operations.