Muhammad Irfan

Reg No. FA21-BSE-027

Algo no 2 Palindrome

Code

PalindromeCheck Class

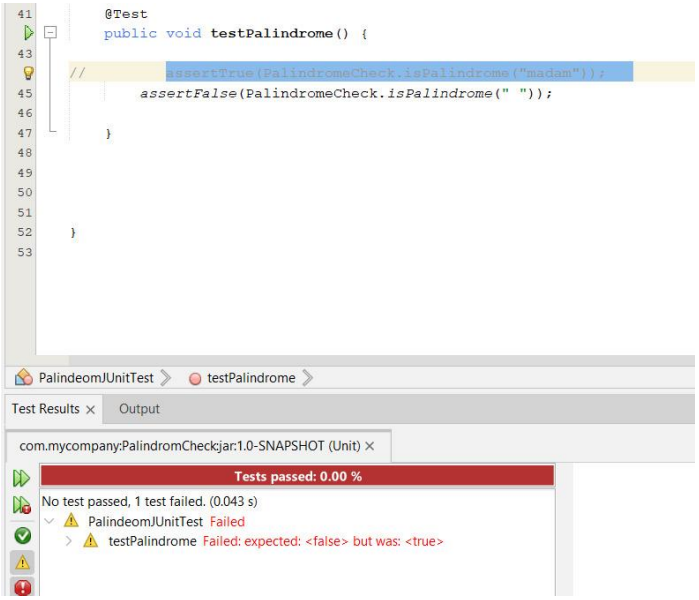
```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 */

package com.mycompany.palindromcheck;

/**
 *
 * @author irfan
 */
public class PalindromeCheck {
    public static boolean isPalindrome(String str) {
        int left = 0, right = str.length() - 1;
        while (left < right) {
            if (str.charAt(left) != str.charAt(right)) {
                return false;
            }
            left++;
            right--;
        }
        return true;
    }

    public static void main(String[] args) {
        String str = "madam";
        boolean isPalindrome = isPalindrome(str);
        System.out.println("Is the string a palindrome? " + isPalindrome);
    }
}
```

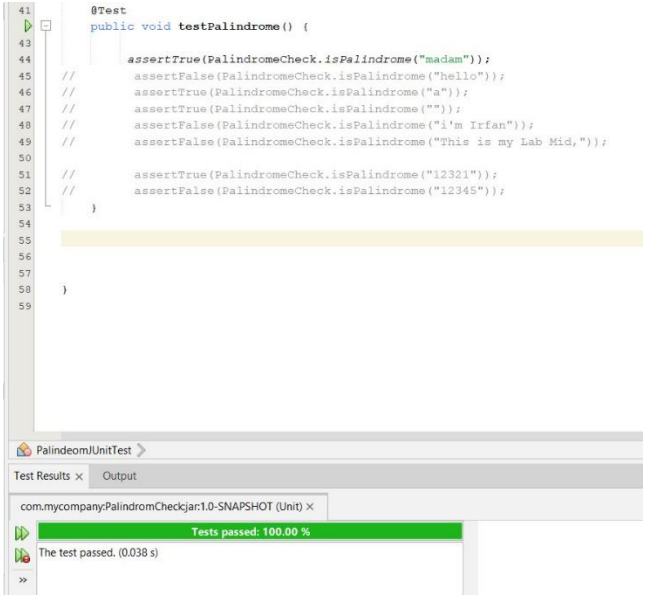
PalindromeCheck Test Class

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/UnitTests/JUnit5TestClass.java to edit this template
 */

import com.mycompany.palindromcheck.PalindromeCheck;
import org.junit.jupiter.api.AfterEach;
import org.junit.jupiter.api.AfterAll;
import org.junit.jupiter.api.BeforeEach;
import org.junit.jupiter.api.BeforeAll;
import org.junit.jupiter.api.Test;
import static org.junit.jupiter.api.Assertions.*;

/**
 *
 * @author irfan
 */
public class PalindeomJUnitTest {

    public PalindeomJUnitTest() {
    }

    @BeforeAll
    public static void setUpClass() {
    }

    @AfterAll
    public static void tearDownClass() {
    }

    @BeforeEach
    public void setUp() {
    }

    @AfterEach
    public void tearDown() {
    }



    @Test
    public void testPalindrome() {
```

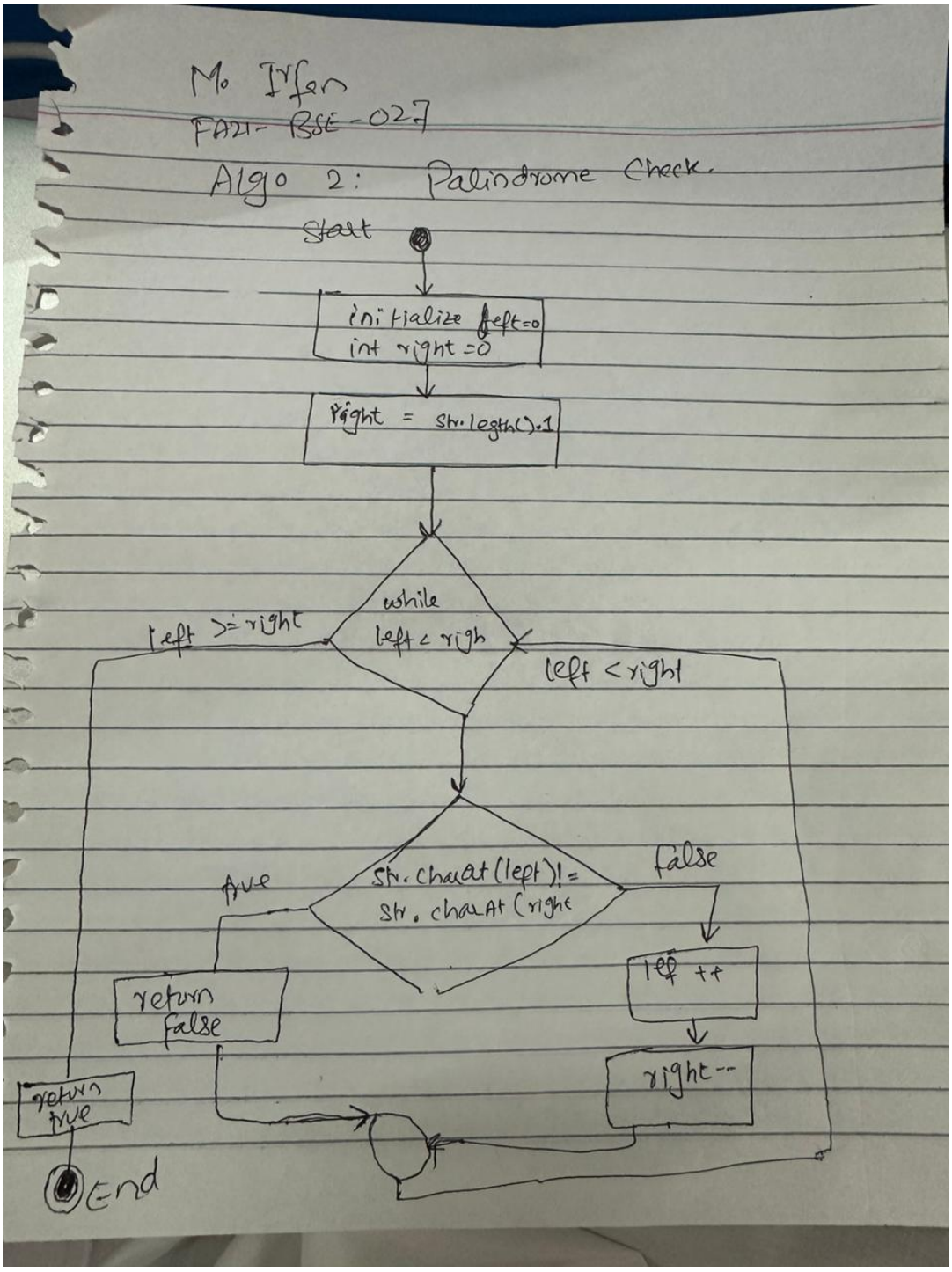
```
//        assertTrue(PalindromeCheck.isPalindrome("madam"));
//       assertFalse(PalindromeCheck.isPalindrome(""));
        assertTrue(PalindromeCheck.isPalindrome("12321"));
       assertFalse(PalindromeCheck.isPalindrome("12345"));
    }

}
```

Output





CFG


M. Irfan
FA21-BSE-027
Algo 2: Palindrome Check.
start
initialize left=0
int right=0
right = str.length()-1
while
left < righ
left >= right
left < right
str.charAt(left)!=
str.charAt(right
true
false
return
false
left ++
right--
return
true
end

Test Cases:

1.

Test Case ID	TC01
Test Case Description	Check if the string "madam" is a palindrome.
Precondition	Method shall be defined
Test Step	Call isPalindrome("madam")
Test Data	"madam"
Expected Result	True
Actual Result	True
Status	Pass

2.

Test Case ID	TC02
Test Case Description	Check if the empty string "" is a palindrome
Precondition	Method shall be defined
Test Step	Call isPalindrome("")
Test Data	"”
Expected Result	Pass
Actual Result	False
Status	Fail

3.

Test Case ID	TC03
Test Case Description	Check if the numeric string "12345" is a palindrome.
Precondition	Method shall be defined
Test Step	Call isPalindrome("12345")
Test Data	"12345"
Expected Result	false
Actual Result	False
Status	Pass

4.

Test Case ID	TC04
Test Case Description	Check if the numeric string "12321" is a palindrome.
Precondition	Method shall be defined
Test Step	Call isPalindrome("123")
Test Data	"123"
Expected Result	True
Actual Result	True
Status	Pass