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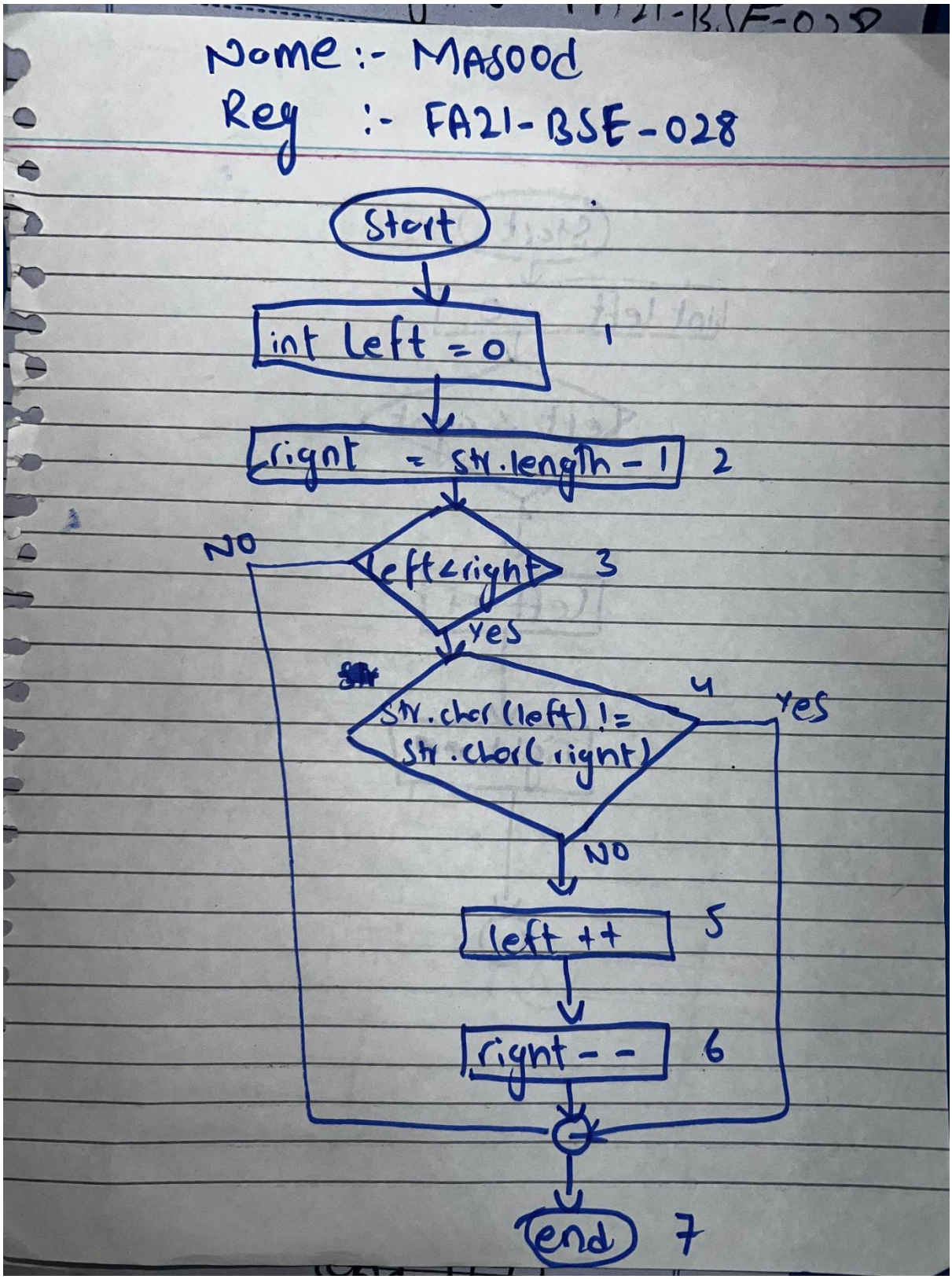
REGNO: FA21-BSE-028



PATHS:

PATH	Data
1,2,3	10, 20, 30, 40, 50
1,2,3,4	{42}
1,2,3,4,5,6	

Q2) DERIVE THE TESTS AND WRITE IN TABULAR FORM

Test Case ID	Test Case Description	Input Data	Expected Output	Actual Output	Verdict
TC_001	To check if the input string is a palindrome ("x")	"x"	true	true	Pass
TC_002	To check if the input string is not a palindrome ("xy")	"xy"	false	false	Pass
TC_003	To check if the input string is a palindrome ("DAD")	"DAD"	true	true	Pass
TC_004	To check if an empty string is considered a palindrome ("")	""	true	true	Pass

ALGORITHM2:

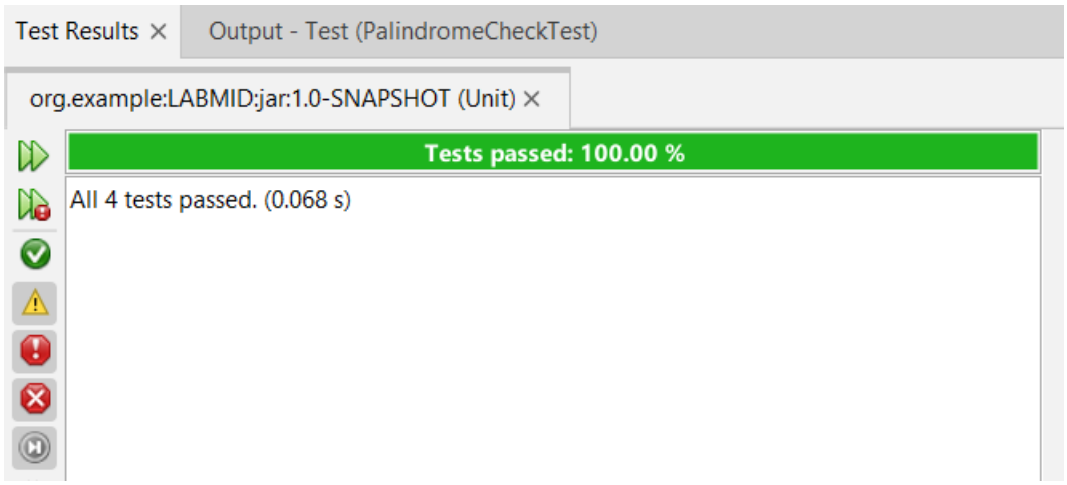
I tested it in both INTELLIj IDEA and APACHE NETBEANS

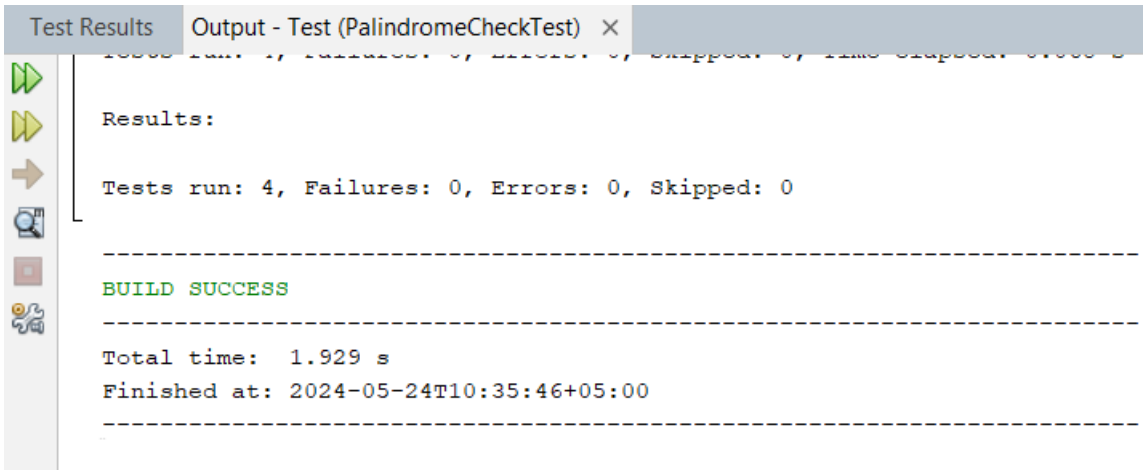
```
package org.example;

/**** @author masoo*/

package org.example;


public class PalindromeCheck {

    public static String reverseString(String str) {

        StringBuilder reversed = new StringBuilder();

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

            reversed.append(str.charAt(i));

        }

        return reversed.toString();

    }


    public static void main(String[] args) {

        String str = "madam";

        String reversedStr = reverseString(str);

        System.out.println("Reversed string: " + reversedStr);

    }

}
```

JUINT TEST CODE:

```
package org.example;

import org.junit.Test;
import static org.junit.Assert.*;

public class PalindromeCheckTest {

    @Test
    public void test1() {
        String str = "x";

        boolean result = PalindromeCheck.isPlaindrome(str);

        assertTrue(result);
    }

    @Test
    public void test2() {
        String str = "xy";

        boolean result = PalindromeCheck.isPlaindrome(str);

        assertFalse(result);
    }

    @Test
    public void test3() {
        String str = "DAD";

        boolean result = PalindromeCheck.isPlaindrome(str);

        assertTrue(result);
    }

    @Test
    public void test4() {
        String str = "";

        boolean result = PalindromeCheck.isPlaindrome(str);

        assertTrue(result);
    }
}
```

TEST RESULT:


Test Results
Output - Test (PalindromeCheckTest)
org.example:LABMID:jar:1.0-SNAPSHOT (Unit)
Tests passed: 100.00 %
All 4 tests passed. (0.068 s)


Test Results
Output - Test (PalindromeCheckTest)
Results:
Tests run: 4, Failures: 0, Errors: 0, Skipped: 0
BUILD SUCCESS
Total time: 1.929 s
Finished at: 2024-05-24T10:35:46+05:00