Unit-Testing using JUnit

Reported by:

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Testing for Unmodified Program

I. Testing for Palindrome_1.java

```
/*
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 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
package JUnit_Palindrome1;
import java.io.BufferedReader;
import java.io.InputStreamReader;
/**
 *
 * @author USER
 */
public class Palindrome1 {
    public String methodPalindrome_1(int n1){
        String hasil;
        BufferedReader br = new BufferedReader(new InputStreamReader(System.in));
        int r, n2;
        int rev=0;
        n2=n1;
        while(n1>0){
            r = n1%10;
            rev = rev*10+r;
            n1 = n1*10;
        }
        if(rev==n2){
            hasil = "palindrome number!";
        } else{
            hasil = "NOT palindrome number!";
        }
        return hasil;
    }
}
```
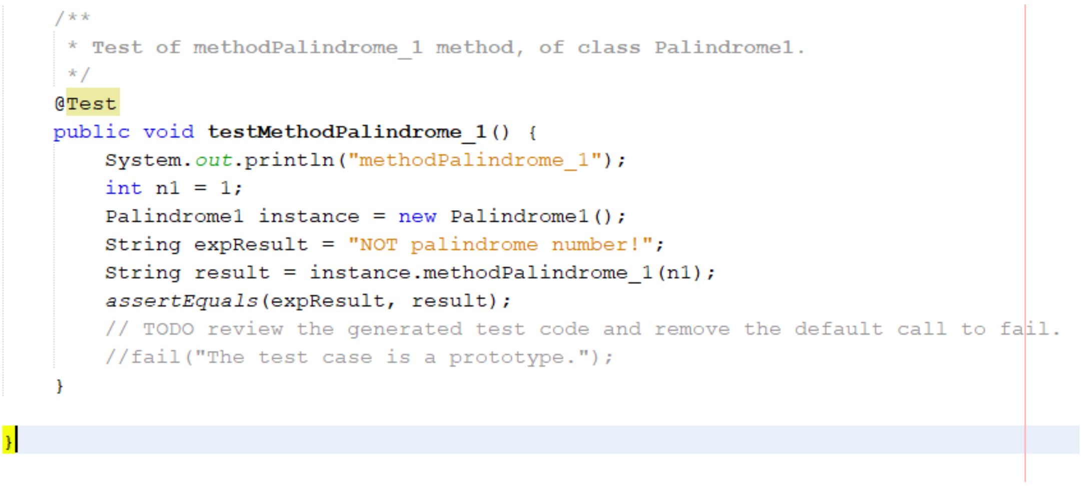
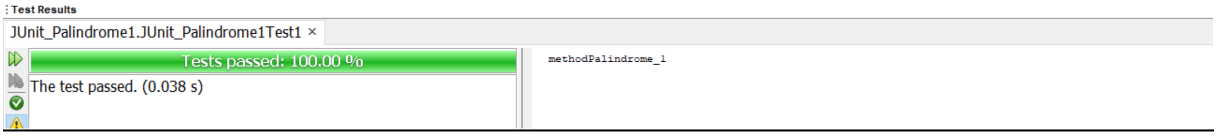

a. Input: 1

Snippet of test case



```
    /**
     * Test of methodPalindrome_1 method, of class Palindrome1.
     */
    @Test
    public void testMethodPalindrome_1() {
        System.out.println("methodPalindrome_1");
        int n1 = 1;
        Palindrome1 instance = new Palindrome1();
        String expResult = "NOT palindrome number!";
        String result = instance.methodPalindrome_1(n1);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

Snippet of results



Test Results

JUnit_Palindrome1.JUnit_Palindrome1Test1 ×

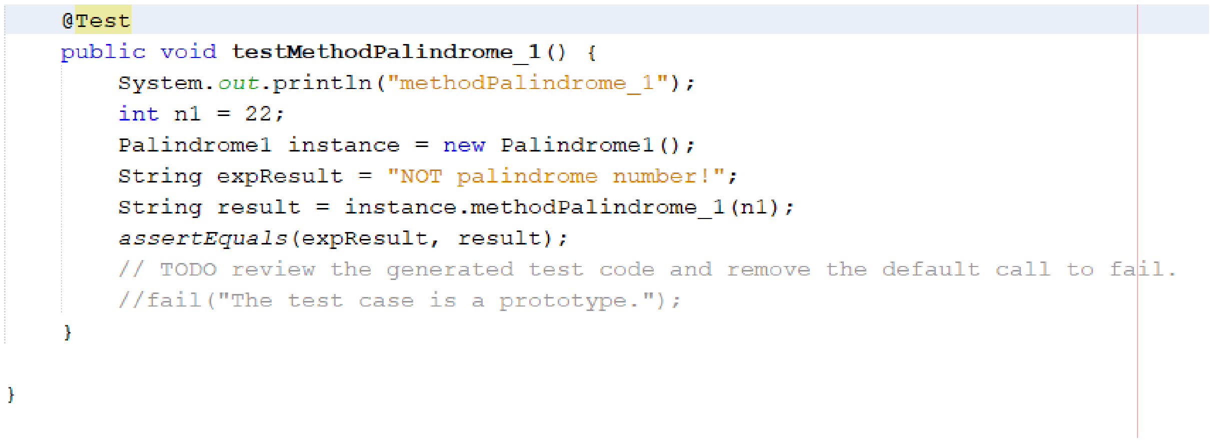
Tests passed: 100.00 %

The test passed. (0.038 s)

```
methodPalindrome_1
```

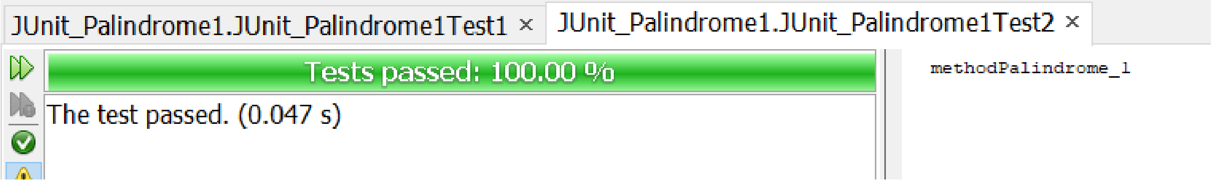
b. Input: 22

Snippet of test case



```
    @Test
    public void testMethodPalindrome_1() {
        System.out.println("methodPalindrome_1");
        int n1 = 22;
        Palindrome1 instance = new Palindrome1();
        String expResult = "NOT palindrome number!";
        String result = instance.methodPalindrome_1(n1);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

Snippet of results



JUnit_Palindrome1.JUnit_Palindrome1Test1 × JUnit_Palindrome1.JUnit_Palindrome1Test2 ×

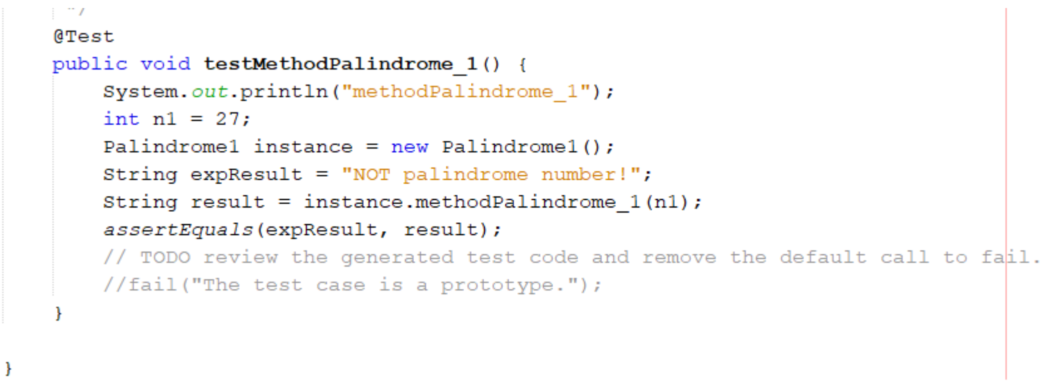
Tests passed: 100.00 %

The test passed. (0.047 s)

```
methodPalindrome_1
```

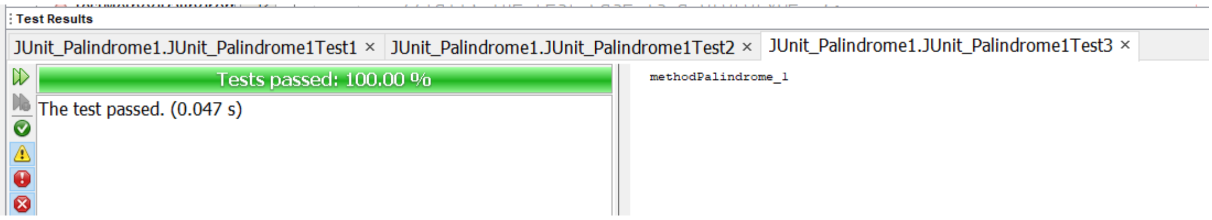
c. Input: 27

Snippet of test case



```
    */
    @Test
    public void testMethodPalindrome_1() {
        System.out.println("methodPalindrome_1");
        int n1 = 27;
        Palindrome1 instance = new Palindrome1();
        String expResult = "NOT palindrome number!";
        String result = instance.methodPalindrome_1(n1);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

Snippet of results



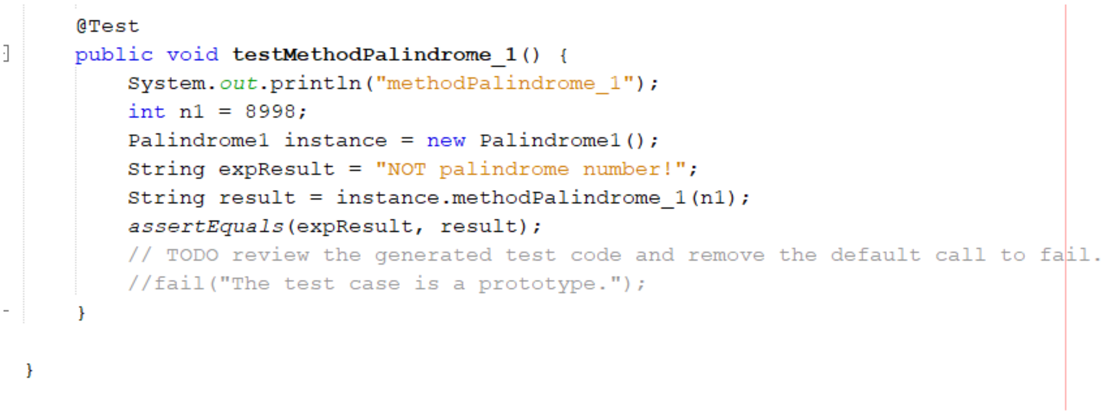
Test Results
JUnit_Palindrome1.JUnit_Palindrome1Test1 ×
JUnit_Palindrome1.JUnit_Palindrome1Test2 ×
JUnit_Palindrome1.JUnit_Palindrome1Test3 ×

```
Tests passed: 100.00 %
The test passed. (0.047 s)
```

```
methodPalindrome_1
```

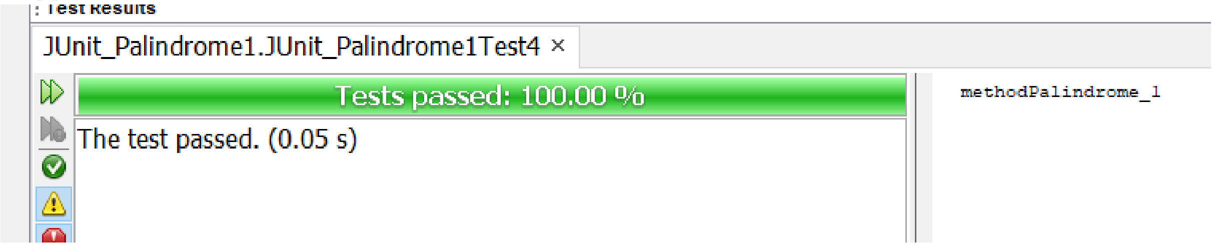
d. Input: 8998

Snippet of test case



```
    @Test
    public void testMethodPalindrome_1() {
        System.out.println("methodPalindrome_1");
        int n1 = 8998;
        Palindrome1 instance = new Palindrome1();
        String expResult = "NOT palindrome number!";
        String result = instance.methodPalindrome_1(n1);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

Snippet of results

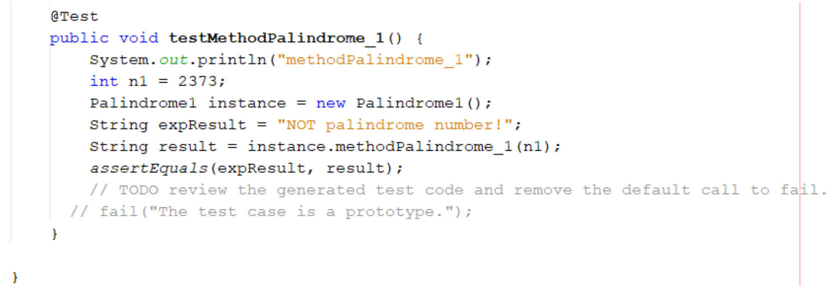


```
Tests passed: 100.00 %
The test passed. (0.05 s)
```

```
methodPalindrome_1
```

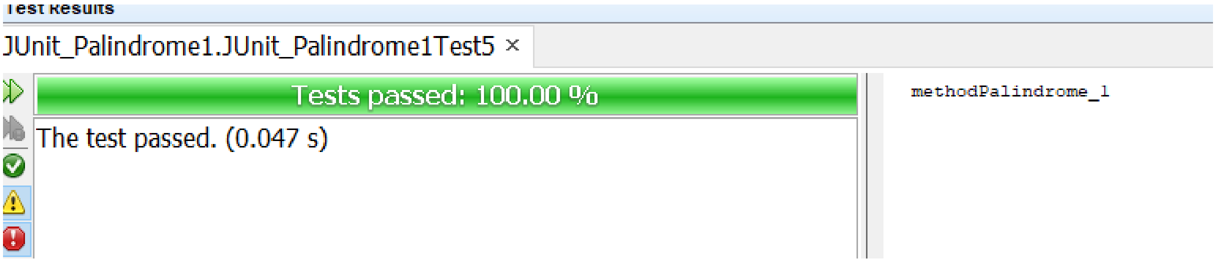
e. Input: 2373

Snippet of test case



```
    @Test
    public void testMethodPalindrome_1() {
        System.out.println("methodPalindrome_1");
        int n1 = 2373;
        Palindrome1 instance = new Palindrome1();
        String expResult = "NOT palindrome number!";
        String result = instance.methodPalindrome_1(n1);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
      // fail("The test case is a prototype.");
    }

}
```

Snippet of results



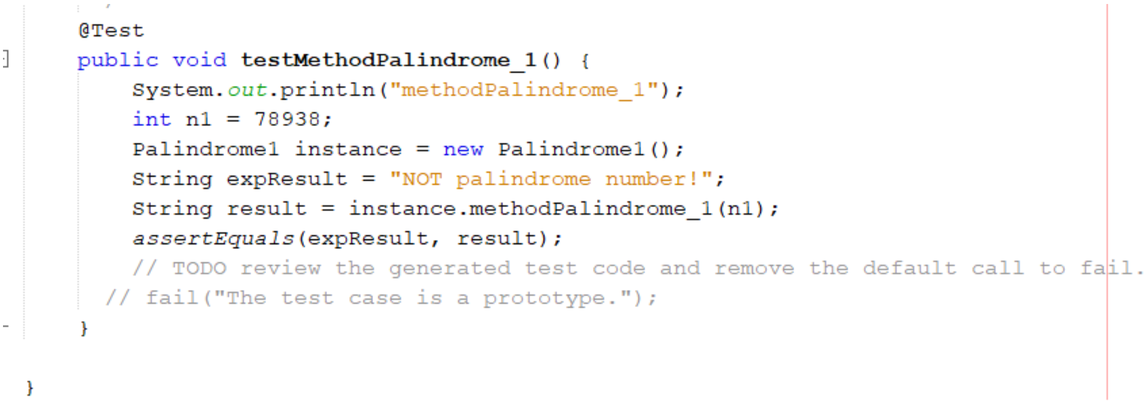
Tests passed: 100.00 %

The test passed. (0.047 s)

methodPalindrome_1

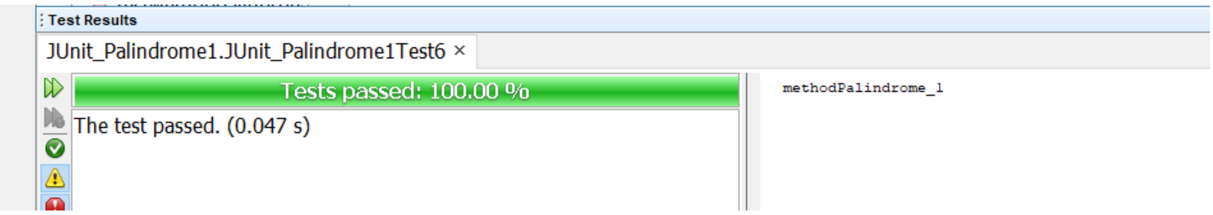
f. Input: 78938

Snippet of test case



```
    @Test
    public void testMethodPalindrome_1() {
        System.out.println("methodPalindrome_1");
        int n1 = 78938;
        Palindrome1 instance = new Palindrome1();
        String expResult = "NOT palindrome number!";
        String result = instance.methodPalindrome_1(n1);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
      // fail("The test case is a prototype.");
    }

}
```

Snippet of results



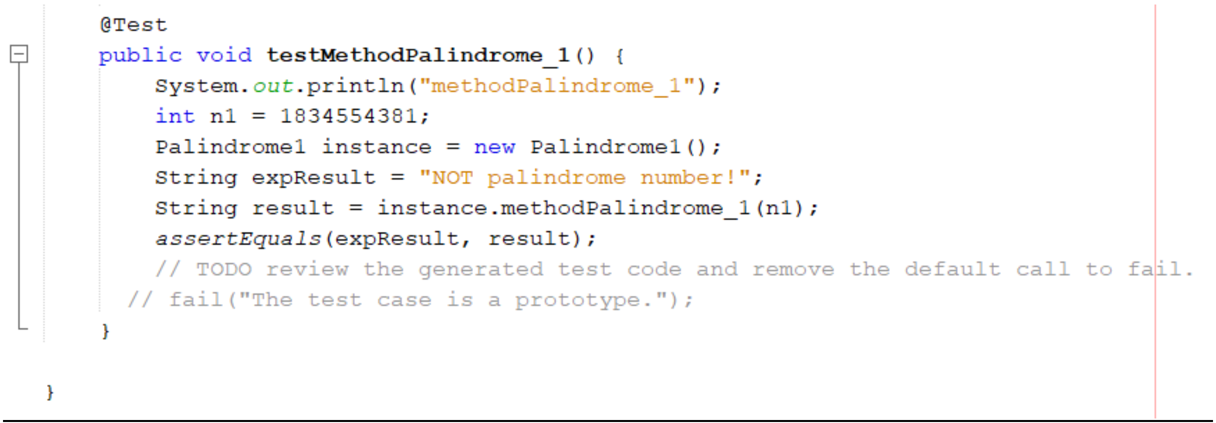
Tests passed: 100.00 %

The test passed. (0.047 s)

methodPalindrome_1

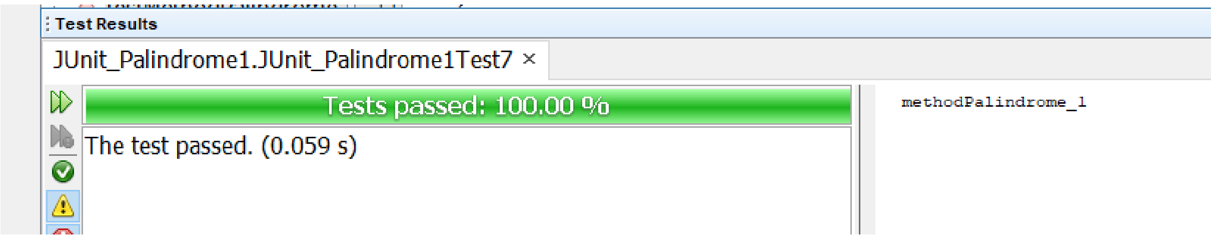
g. Input: 1834554381

Snippet of test case



```
    @Test
    public void testMethodPalindrome_1() {
        System.out.println("methodPalindrome_1");
        int n1 = 1834554381;
        Palindrome1 instance = new Palindrome1();
        String expResult = "NOT palindrome number!";
        String result = instance.methodPalindrome_1(n1);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
      // fail("The test case is a prototype.");
    }

}
```

Snippet of results

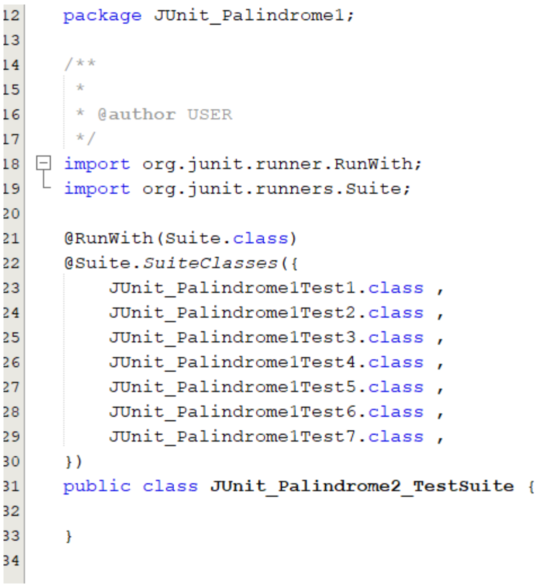


```
Tests passed: 100.00 %
The test passed. (0.059 s)
```

```
methodPalindrome_1
```

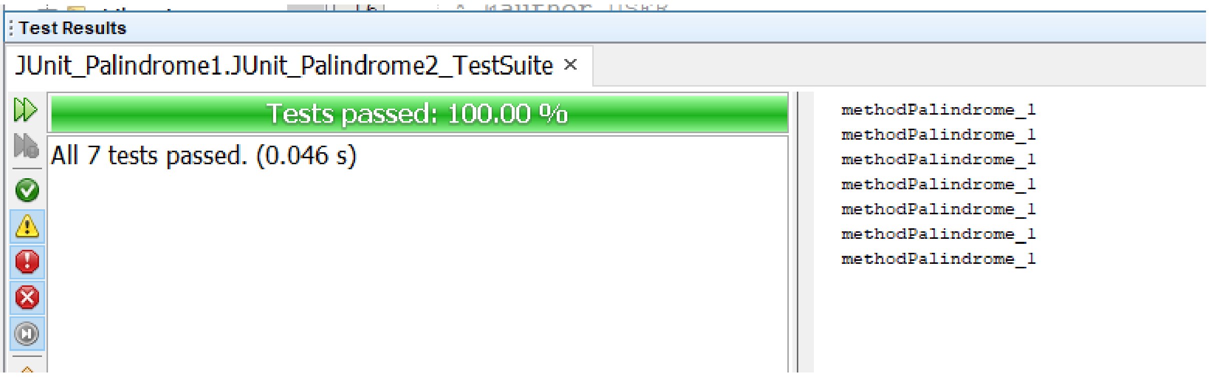
h. Test Suite

Snippet of test case



```
package JUnit_Palindrome1;

/**
 *
 * @author USER
 */
import org.junit.runner.RunWith;
import org.junit.runners.Suite;

@RunWith(Suite.class)
@Suite.SuiteClasses({
    JUnit_Palindrome1Test1.class ,
    JUnit_Palindrome1Test2.class ,
    JUnit_Palindrome1Test3.class ,
    JUnit_Palindrome1Test4.class ,
    JUnit_Palindrome1Test5.class ,
    JUnit_Palindrome1Test6.class ,
    JUnit_Palindrome1Test7.class ,
})
public class JUnit_Palindrome2_TestSuite {

}
```

Snippet of results



```
Tests passed: 100.00 %
All 7 tests passed. (0.046 s)
```

```
methodPalindrome_1
methodPalindrome_1
methodPalindrome_1
methodPalindrome_1
methodPalindrome_1
methodPalindrome_1
methodPalindrome_1
```

II. Testing for Palindrome_2.java

```
/*
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1.   11321019        Elsaday Sianturi
2.   11321044        Yudhi Purba
3.   11321069        Maria Fransiska Giawa
4.   11321071        Putri Wita Marito

 * To change this license header, choose License Headers in Project Properties.
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 * and open the template in the editor.
 */
package JUnit_Palindrome2;
import java.util.Scanner;
/**
 *
 * @author USER
 */
public class Palindrome2 {
   public String methodPalindrome_2(String original){
      String reverse = "";
      String hasil;
      Scanner in = new Scanner(System.in);

      int length = original.length();

      for(int i=length-1; i>=0; i--)
         reverse = reverse + original.charAt(i);
      if(original.equals(reverse))
         hasil = "palindrome string!";
      else
         hasil = "NOT palindrome string!";
      return hasil;
   }
}
```
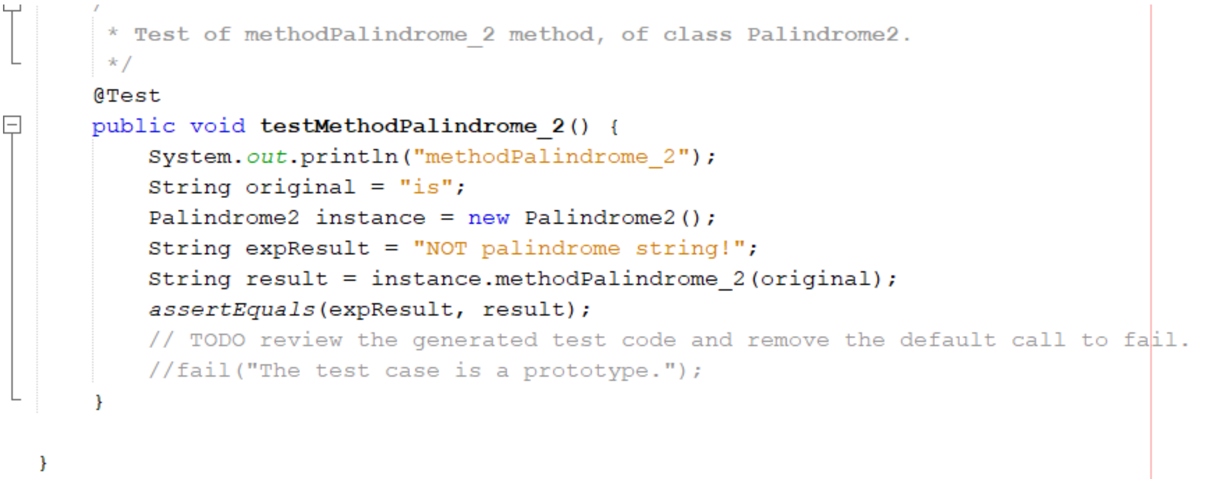
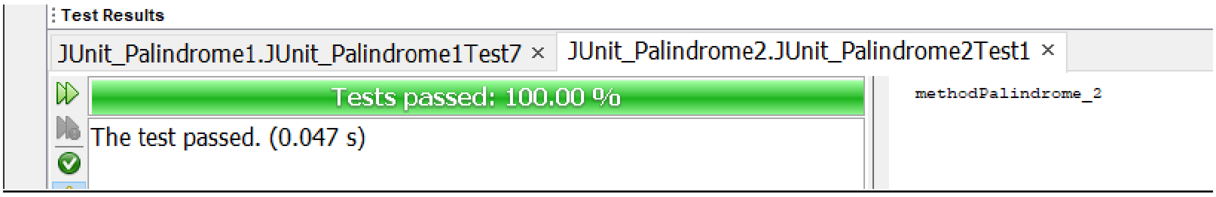

a. Input: a

Snippet of test case



```
     * Test of methodPalindrome_2 method, of class Palindrome2.
     */
    @Test
    public void testMethodPalindrome_2() {
        System.out.println("methodPalindrome_2");
        String original = "is";
        Palindrome2 instance = new Palindrome2();
        String expResult = "NOT palindrome string!";
        String result = instance.methodPalindrome_2(original);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

Snippet of results


Test Results
JUnit_Palindrome1.JUnit_Palindrome1Test7 ×
JUnit_Palindrome2.JUnit_Palindrome2Test1 ×

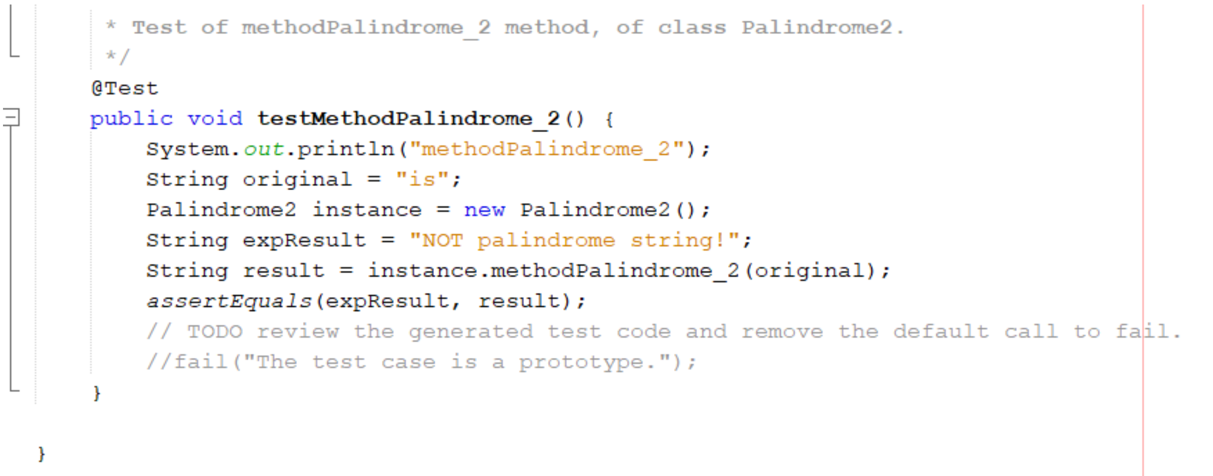
Tests passed: 100.00 %

The test passed. (0.047 s)

```
methodPalindrome_2
```

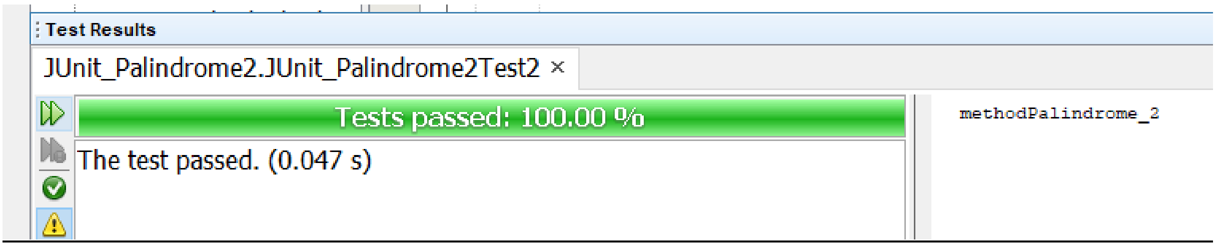
b. Input: is

Snippet of test case



```
     * Test of methodPalindrome_2 method, of class Palindrome2.
     */
    @Test
    public void testMethodPalindrome_2() {
        System.out.println("methodPalindrome_2");
        String original = "is";
        Palindrome2 instance = new Palindrome2();
        String expResult = "NOT palindrome string!";
        String result = instance.methodPalindrome_2(original);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

Snippet of results



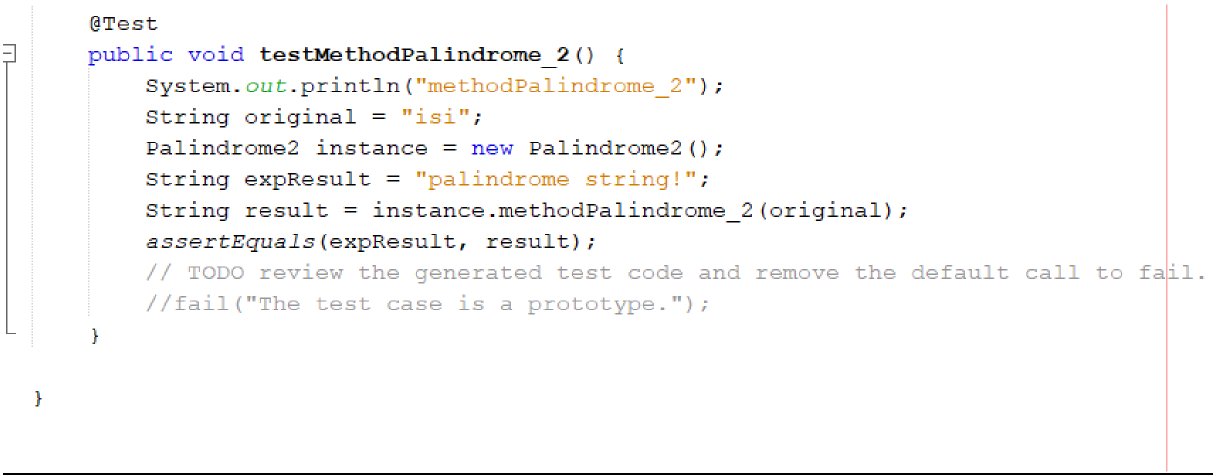
Tests passed: 100.00 %

The test passed. (0.047 s)

```
methodPalindrome_2
```

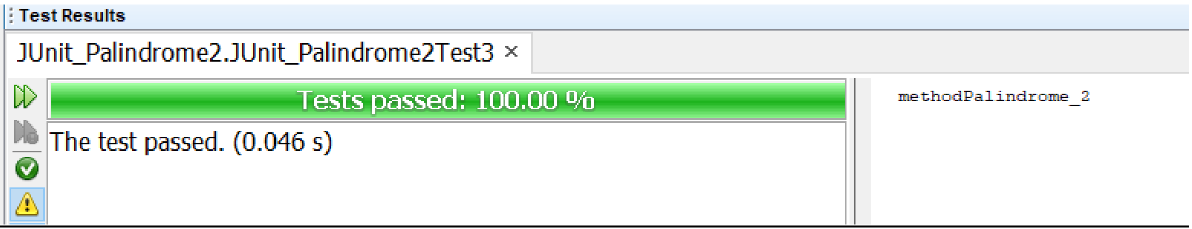
c. Input: isi

Snippet of test case



```
    @Test
    public void testMethodPalindrome_2() {
        System.out.println("methodPalindrome_2");
        String original = "isi";
        Palindrome2 instance = new Palindrome2();
        String expResult = "palindrome string!";
        String result = instance.methodPalindrome_2(original);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

Snippet of results

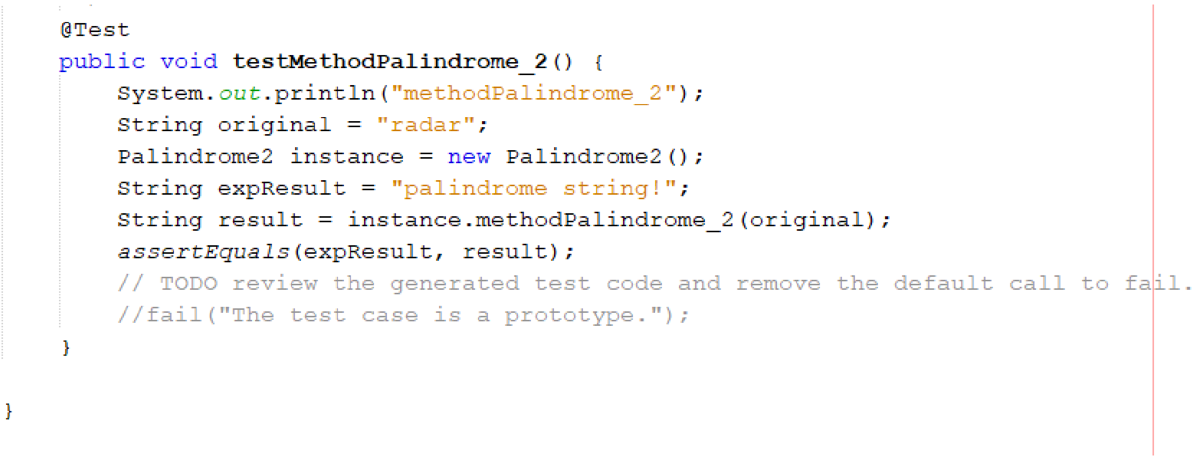


```
Tests passed: 100.00 %
The test passed. (0.046 s)
```

```
methodPalindrome_2
```

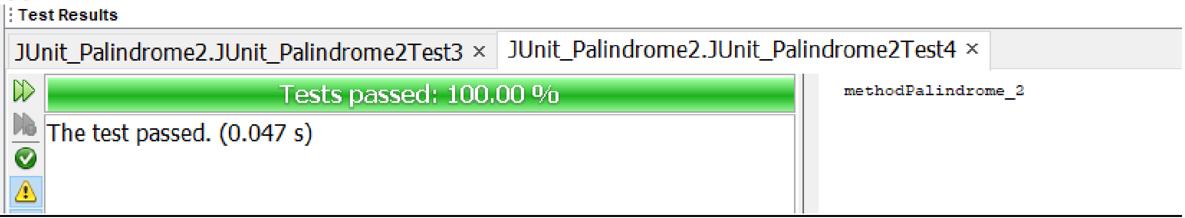
d. Input: radar

Snippet of test case



```
    @Test
    public void testMethodPalindrome_2() {
        System.out.println("methodPalindrome_2");
        String original = "radar";
        Palindrome2 instance = new Palindrome2();
        String expResult = "palindrome string!";
        String result = instance.methodPalindrome_2(original);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

Snippet of results

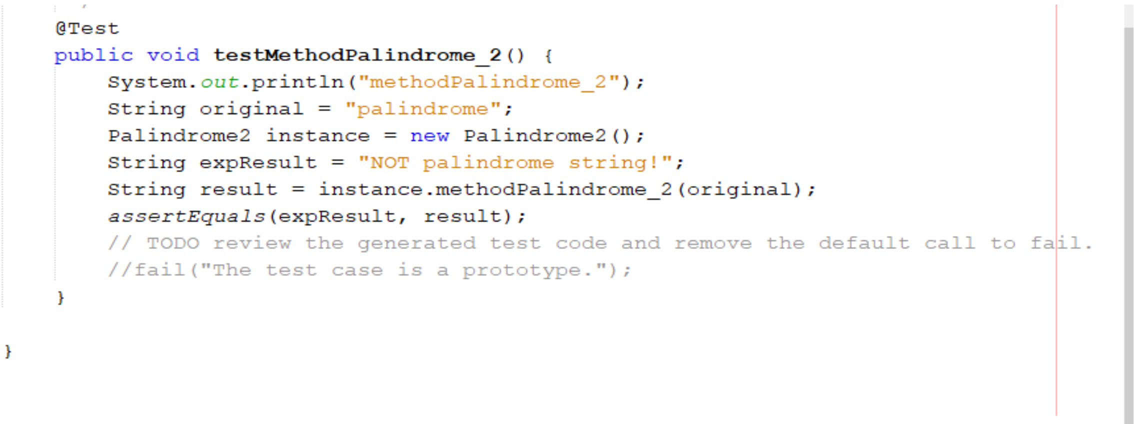

Test Results
JUnit_Palindrome2.JUnit_Palindrome2Test3 ×
JUnit_Palindrome2.JUnit_Palindrome2Test4 ×

```
Tests passed: 100.00 %
The test passed. (0.047 s)
```

```
methodPalindrome_2
```

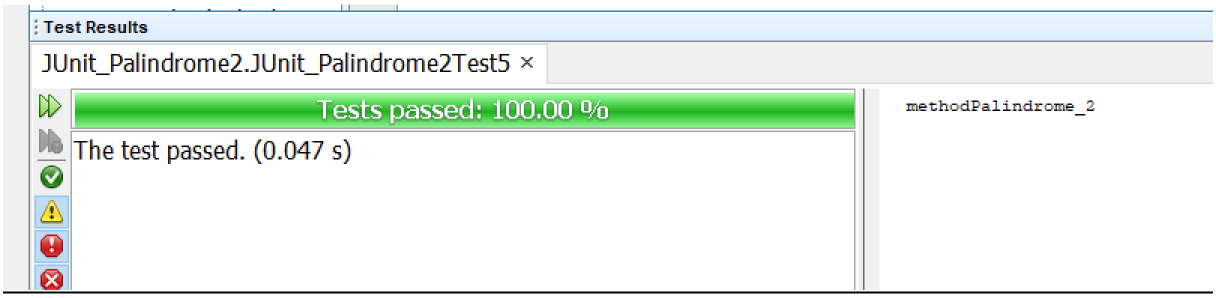
e. Input: palindrome

Snippet of test case



```
    @Test
    public void testMethodPalindrome_2() {
        System.out.println("methodPalindrome_2");
        String original = "palindrome";
        Palindrome2 instance = new Palindrome2();
        String expResult = "NOT palindrome string!";
        String result = instance.methodPalindrome_2(original);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

Snippet of results

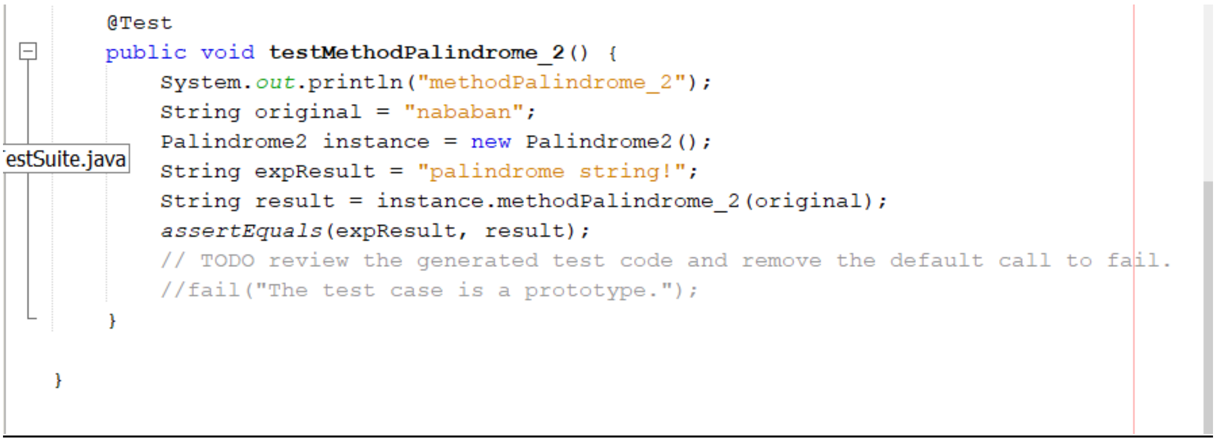


```
Tests passed: 100.00 %
The test passed. (0.047 s)
```

```
methodPalindrome_2
```

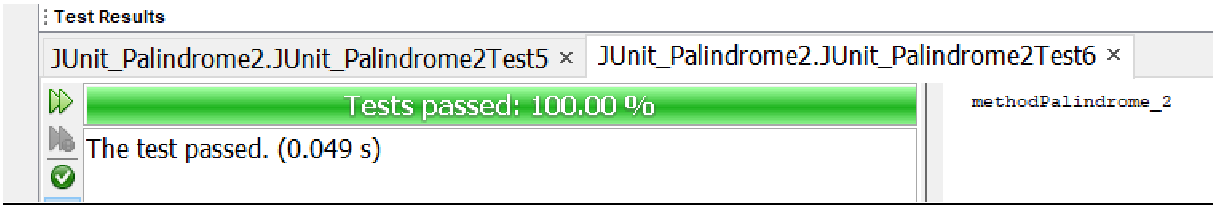
f. Input: nababan

Snippet of test case



```
    @Test
    public void testMethodPalindrome_2() {
        System.out.println("methodPalindrome_2");
        String original = "nababan";
        Palindrome2 instance = new Palindrome2();
        String expResult = "palindrome string!";
        String result = instance.methodPalindrome_2(original);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

Snippet of results

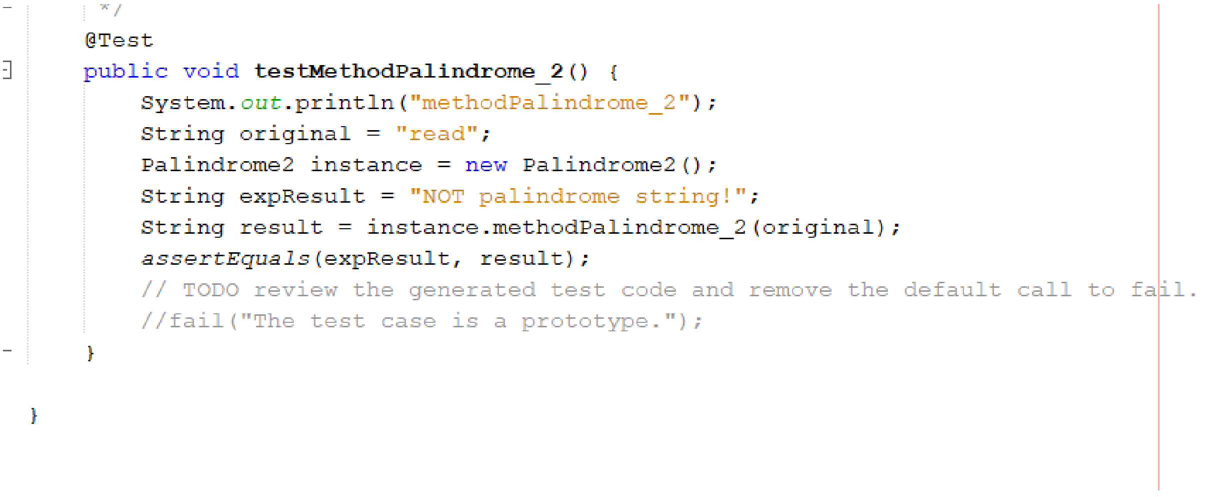

Test Results
JUnit_Palindrome2.JUnit_Palindrome2Test5 ×
JUnit_Palindrome2.JUnit_Palindrome2Test6 ×

```
Tests passed: 100.00 %
The test passed. (0.049 s)
```

```
methodPalindrome_2
```

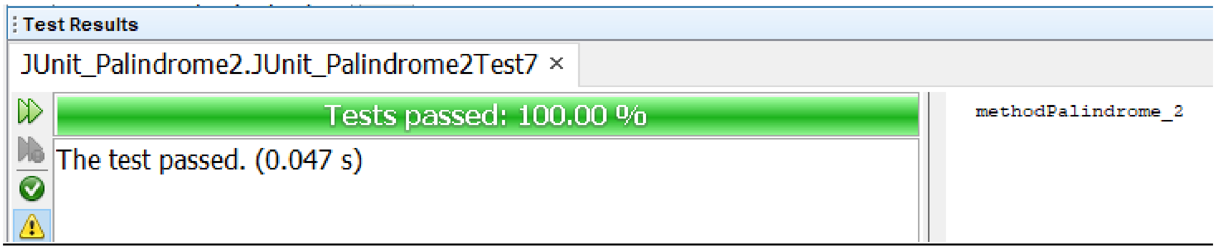
g. Input: read

Snippet of test case



```
     */
    @Test
    public void testMethodPalindrome_2() {
        System.out.println("methodPalindrome_2");
        String original = "read";
        Palindrome2 instance = new Palindrome2();
        String expResult = "NOT palindrome string!";
        String result = instance.methodPalindrome_2(original);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

Snippet of results



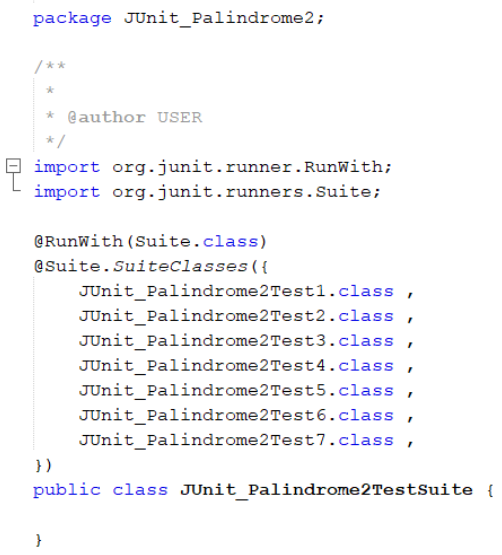
Tests passed: 100.00 %

The test passed. (0.047 s)

```
methodPalindrome_2
```

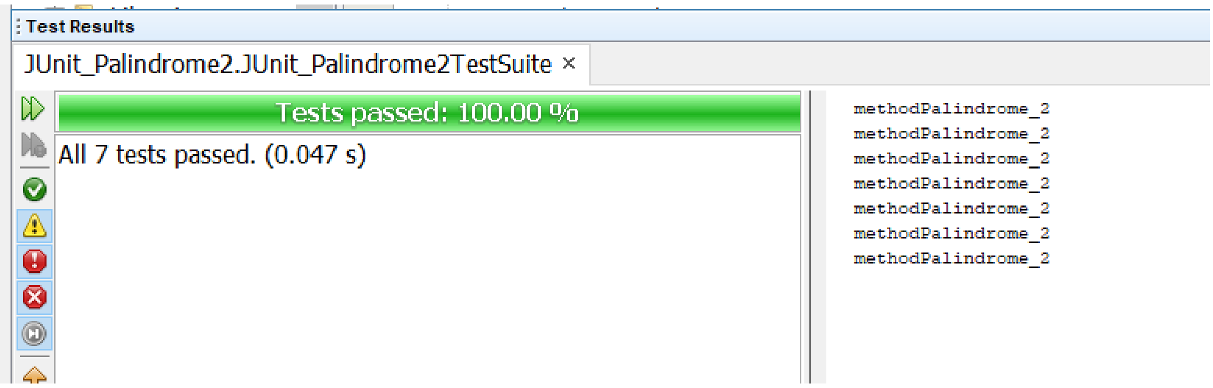
h. TestSuite

Snippet of test case



```
package JUnit_Palindrome2;

/**
 *
 * @author USER
 */
import org.junit.runner.RunWith;
import org.junit.runners.Suite;

@RunWith(Suite.class)
@Suite.SuiteClasses({
    JUnit_Palindrome2Test1.class ,
    JUnit_Palindrome2Test2.class ,
    JUnit_Palindrome2Test3.class ,
    JUnit_Palindrome2Test4.class ,
    JUnit_Palindrome2Test5.class ,
    JUnit_Palindrome2Test6.class ,
    JUnit_Palindrome2Test7.class ,
})
public class JUnit_Palindrome2TestSuite {

}
```

Snippet of results



Tests passed: 100.00 %

All 7 tests passed. (0.047 s)

```
methodPalindrome_2
methodPalindrome_2
methodPalindrome_2
methodPalindrome_2
methodPalindrome_2
methodPalindrome_2
methodPalindrome_2
```

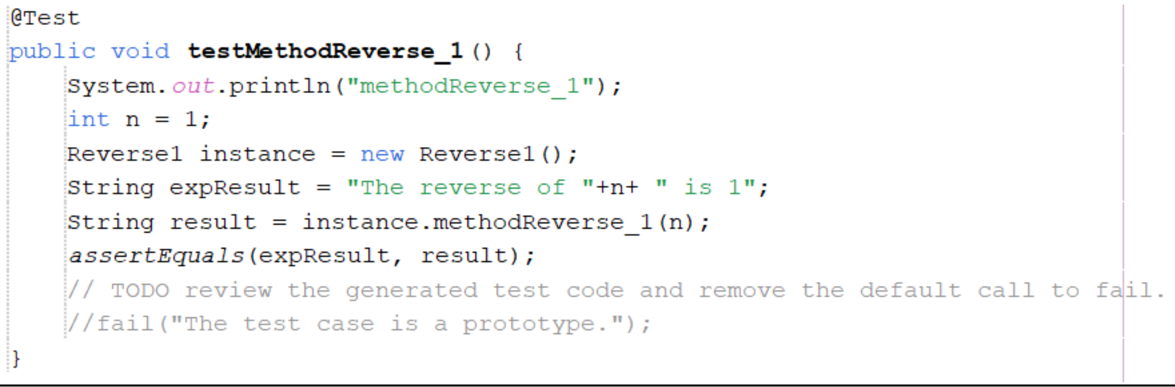
III. Testing for Reverse_1.java

```
/*
        Kelompok 06 PA2
        1.    11321019        Elsaday Sianturi
        2.    11321044        Yudhi Purba
        3.    11321069        Maria Fransiska Giawa
        4.    11321071        Putri Wita Marito

         * To change this license header, choose License Headers in Project Properties.
         * To change this template file, choose Tools | Templates
         * and open the template in the editor.
         */
        package JUnit_Reverse1;

```

```
import java.io.BufferedReader;
import java.io.InputStreamReader;
/**
 *
 * @author USER
 */
public class Reverse1 {
   public String methodReverse_1(int n){
      String hasil;
      BufferedReader br = new BufferedReader(new InputStreamReader(System.in));
      int r;
      int rev = 0;
      int number = n;

      while(n>0){
         r = n%10;
         rev = rev*10+r;
         n = n/10;
      }

      hasil = "The reverse of "+number+ " is "+rev;
      return hasil;
   }
}
```

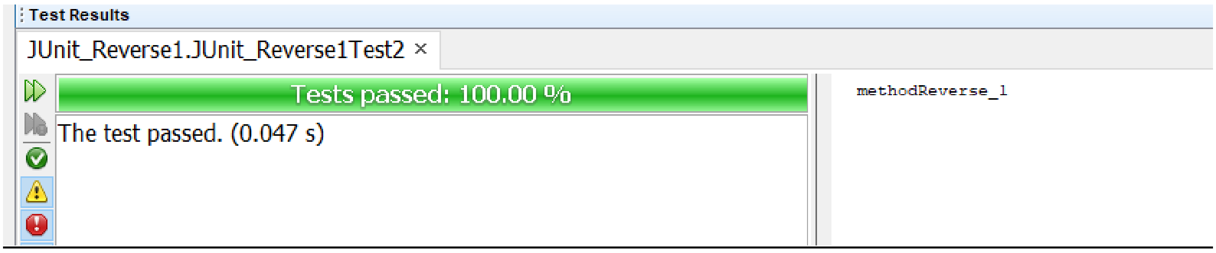
a. Input: 1

Snippet of test case



```
@Test
public void testMethodReverse_1() {
    System.out.println("methodReverse_1");
    int n = 1;
    Reverse1 instance = new Reverse1();
    String expResult = "The reverse of "+n+ " is 1";
    String result = instance.methodReverse_1(n);
    assertEquals(expResult, result);
    // TODO review the generated test code and remove the default call to fail.
    //fail("The test case is a prototype.");
}
```

Snippet of results



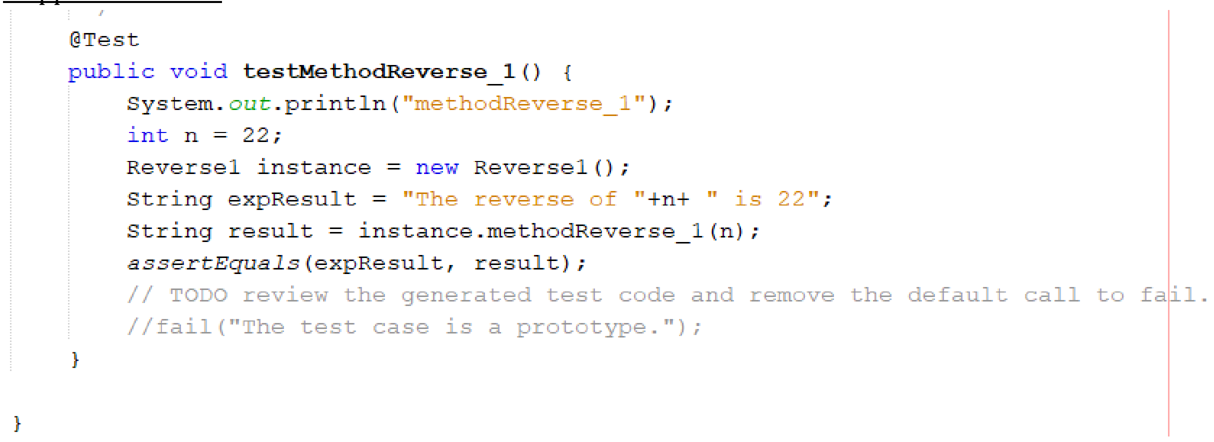
Tests passed: 100.00 %

The test passed. (0.047 s)

```
methodReverse_1
```

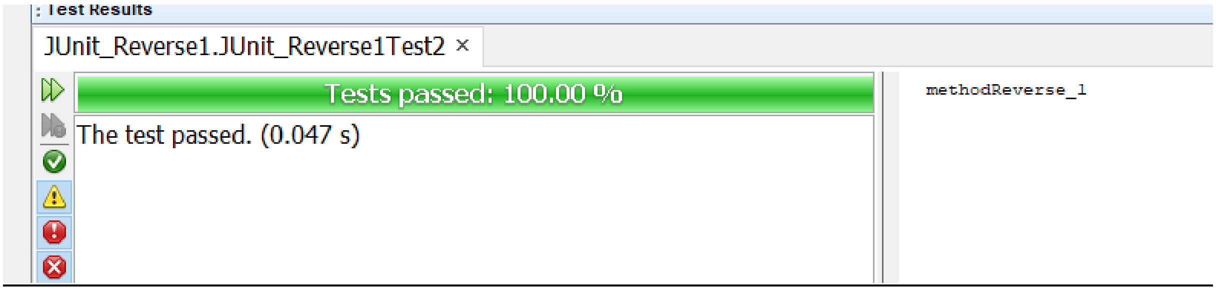
b. Input: 22

Snippet of test case



```
    @Test
    public void testMethodReverse_1() {
        System.out.println("methodReverse_1");
        int n = 22;
        Reverse1 instance = new Reverse1();
        String expResult = "The reverse of "+n+ " is 22";
        String result = instance.methodReverse_1(n);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

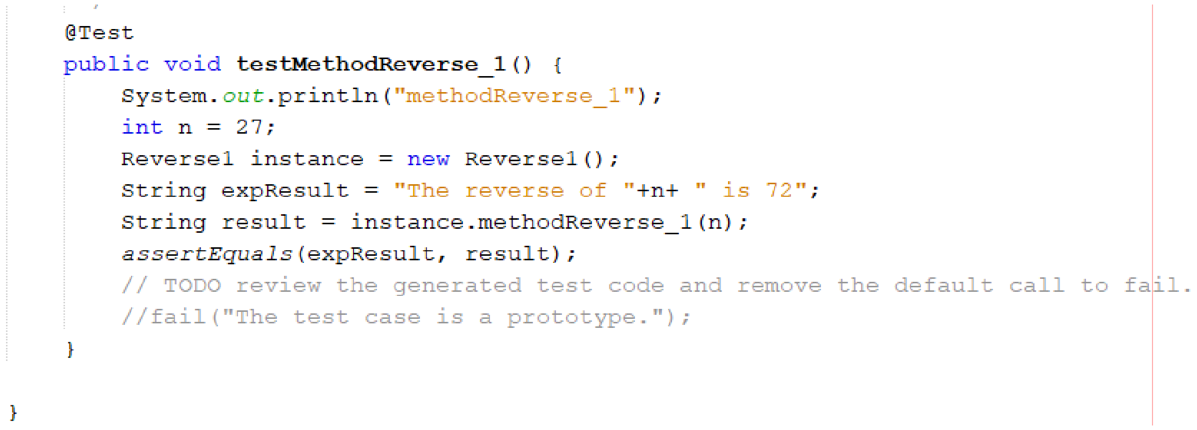
Snippet of results



```
Tests passed: 100.00 %
The test passed. (0.047 s)
methodReverse_1
```

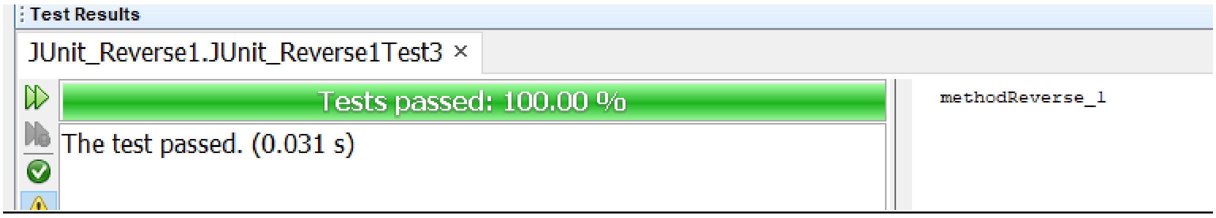
c. Input: 27

Snippet of test case



```
    @Test
    public void testMethodReverse_1() {
        System.out.println("methodReverse_1");
        int n = 27;
        Reverse1 instance = new Reverse1();
        String expResult = "The reverse of "+n+ " is 72";
        String result = instance.methodReverse_1(n);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

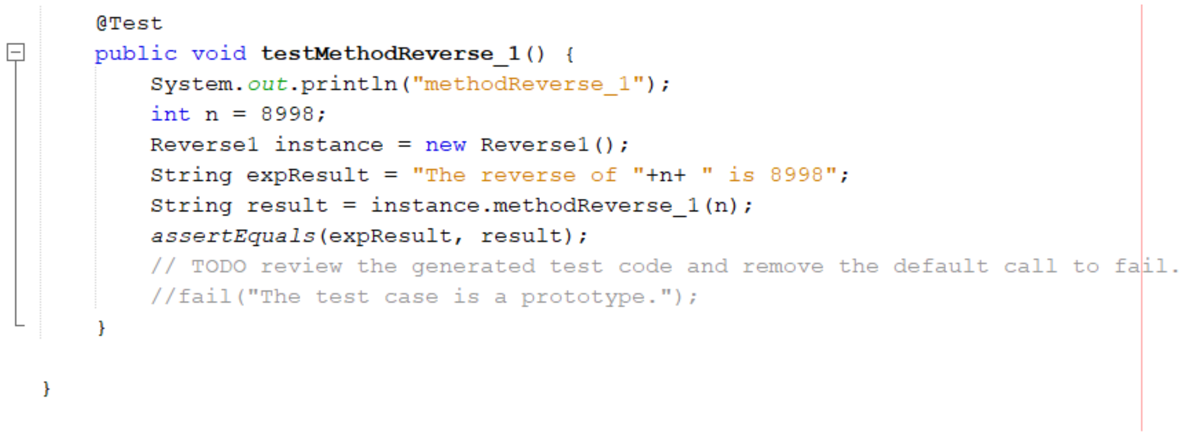
Snippet of results



```
Tests passed: 100.00 %
The test passed. (0.031 s)
methodReverse_1
```

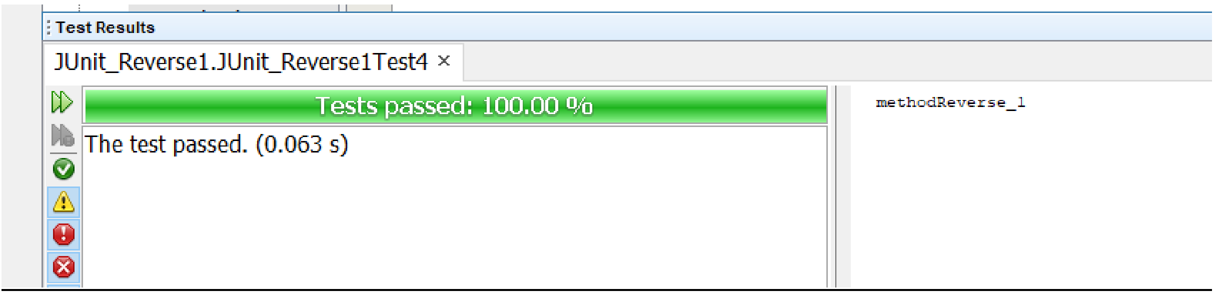
d. Input: 8998

Snippet of test case



```
    @Test
    public void testMethodReverse_1() {
        System.out.println("methodReverse_1");
        int n = 8998;
        Reverse1 instance = new Reverse1();
        String expResult = "The reverse of "+n+ " is 8998";
        String result = instance.methodReverse_1(n);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

Snippet of results

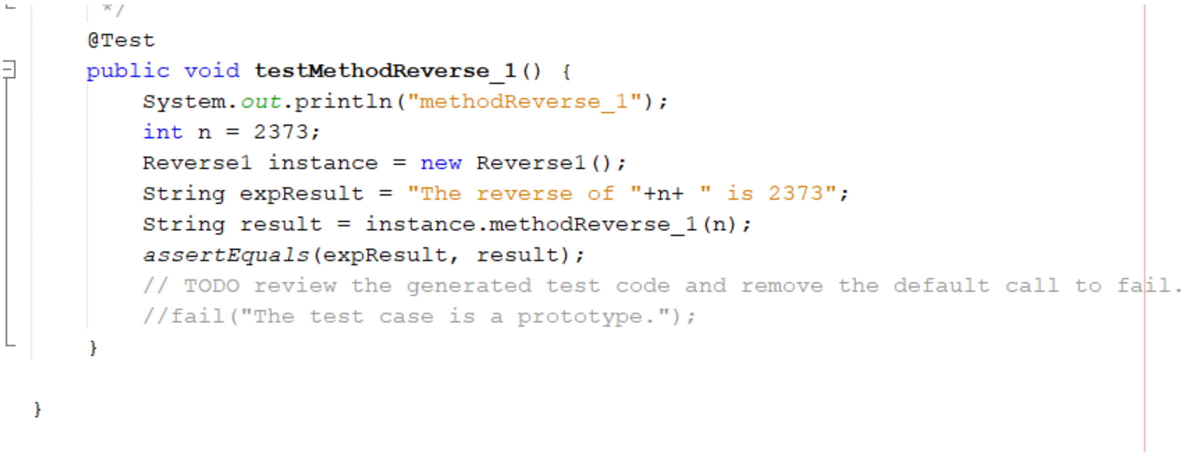


```
Tests passed: 100.00 %
The test passed. (0.063 s)
```

```
methodReverse_1
```

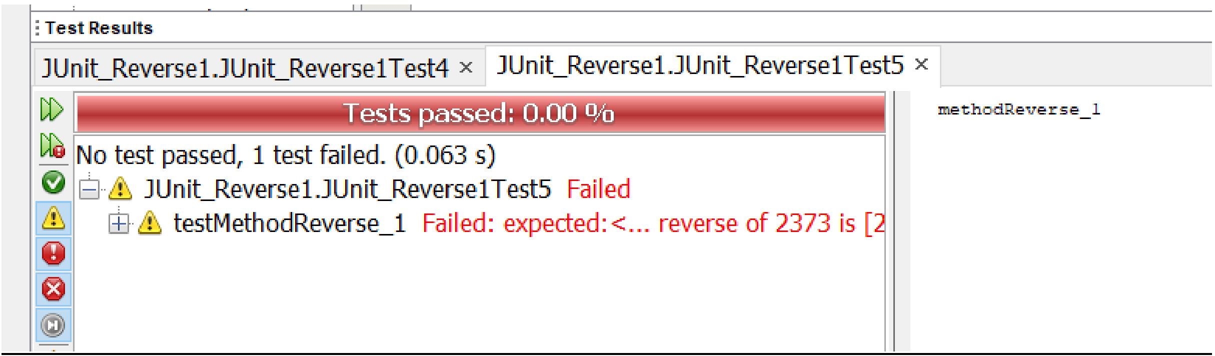
e. Input: 2373

Snippet of test case



```
     */
    @Test
    public void testMethodReverse_1() {
        System.out.println("methodReverse_1");
        int n = 2373;
        Reverse1 instance = new Reverse1();
        String expResult = "The reverse of "+n+ " is 2373";
        String result = instance.methodReverse_1(n);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

Snippet of results



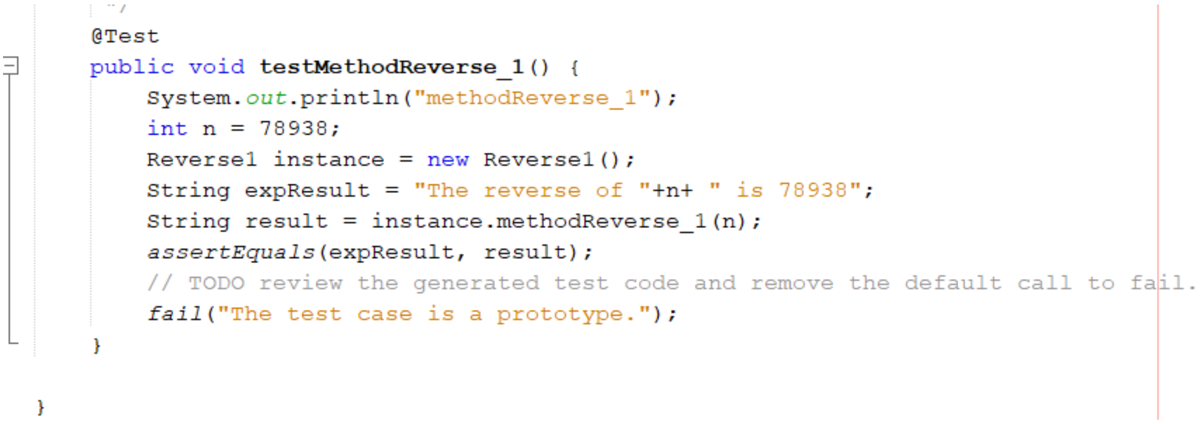
Test Results
JUnit_Reverse1.JUnit_Reverse1Test4 ×
JUnit_Reverse1.JUnit_Reverse1Test5 ×

```
Tests passed: 0.00 %
No test passed, 1 test failed. (0.063 s)
JUnit_Reverse1.JUnit_Reverse1Test5  Failed
    testMethodReverse_1  Failed: expected:<... reverse of 2373 is [2
```

```
methodReverse_1
```

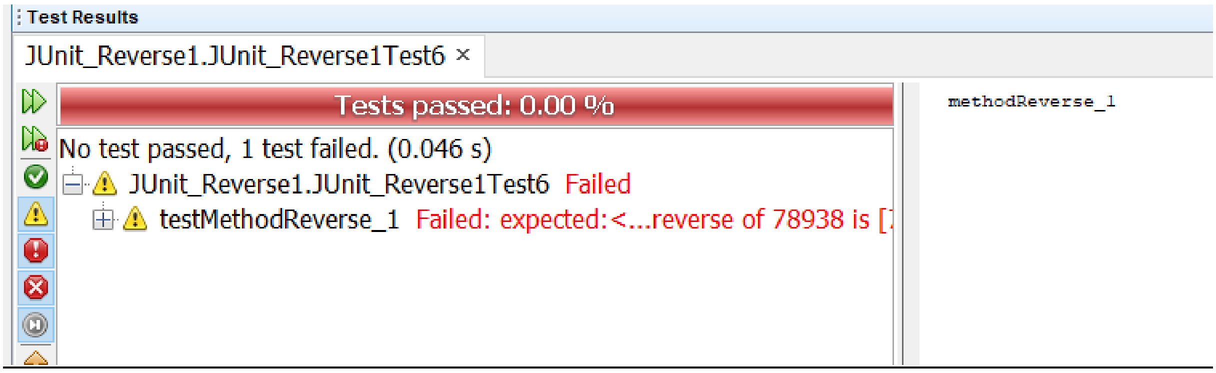
f. Input: 78938

Snippet of test case



```
    @Test
    public void testMethodReverse_1() {
        System.out.println("methodReverse_1");
        int n = 78938;
        Reverse1 instance = new Reverse1();
        String expResult = "The reverse of "+n+ " is 78938";
        String result = instance.methodReverse_1(n);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        fail("The test case is a prototype.");
    }

}
```

Snippet of results



Test Results

JUnit_Reverse1.JUnit_Reverse1Test6 ×

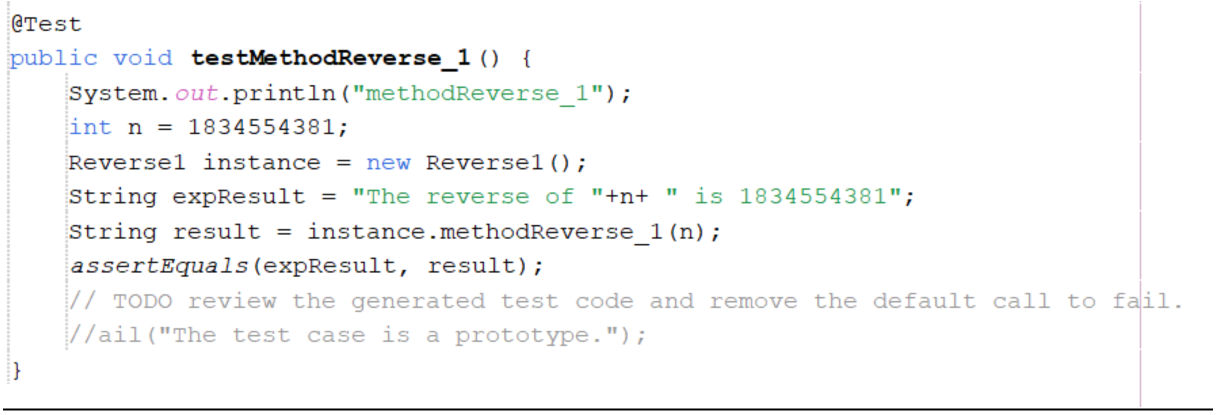
Tests passed: 0.00 %

```
No test passed, 1 test failed. (0.046 s)
  JUnit_Reverse1.JUnit_Reverse1Test6  Failed
    testMethodReverse_1  Failed: expected:<...reverse of 78938 is [
```

```
methodReverse_1
```

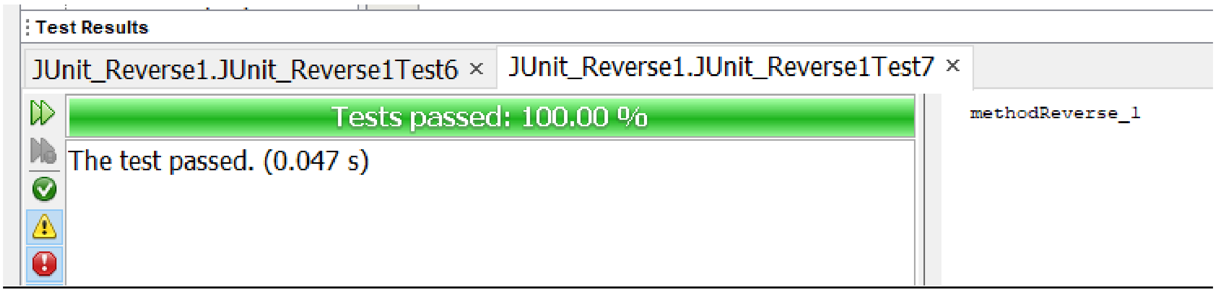
g. Input: 1834554381

Snippet of test case



```
@Test
public void testMethodReverse_1() {
    System.out.println("methodReverse_1");
    int n = 1834554381;
    Reverse1 instance = new Reverse1();
    String expResult = "The reverse of "+n+ " is 1834554381";
    String result = instance.methodReverse_1(n);
    assertEquals(expResult, result);
    // TODO review the generated test code and remove the default call to fail.
    //ail("The test case is a prototype.");
}
```

Snippet of results

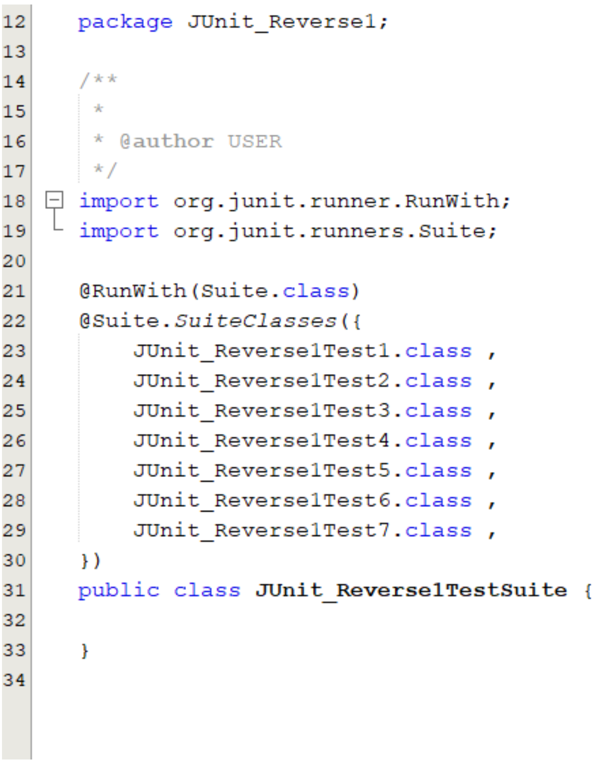

Test Results
JUnit_Reverse1.JUnit_Reverse1Test6 ×
JUnit_Reverse1.JUnit_Reverse1Test7 ×

```
Tests passed: 100.00 %
The test passed. (0.047 s)
```

```
methodReverse_1
```

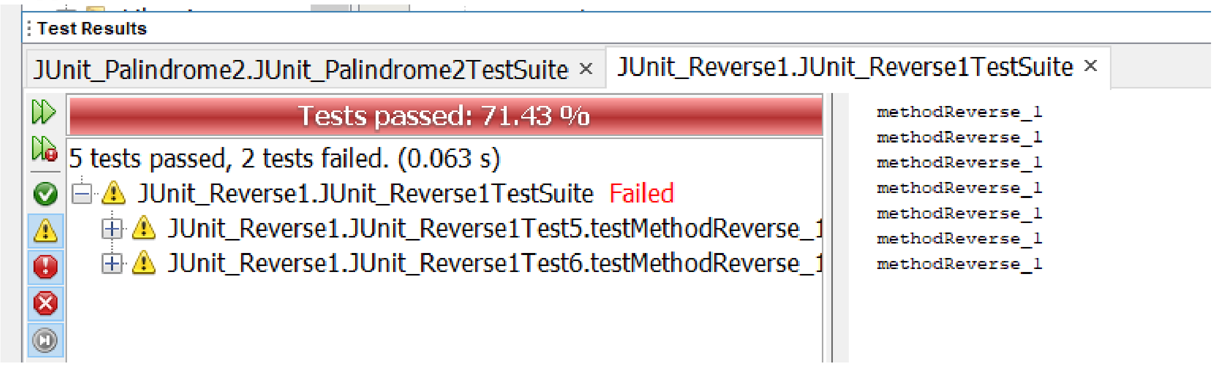
h. TestSuite

Snippet of test case



```java
package JUnit_Reverse1;

/**
 *
 * @author USER
 */
import org.junit.runner.RunWith;
import org.junit.runners.Suite;

@RunWith(Suite.class)
@Suite.SuiteClasses({
    JUnit_Reverse1Test1.class ,
    JUnit_Reverse1Test2.class ,
    JUnit_Reverse1Test3.class ,
    JUnit_Reverse1Test4.class ,
    JUnit_Reverse1Test5.class ,
    JUnit_Reverse1Test6.class ,
    JUnit_Reverse1Test7.class ,
})
public class JUnit_Reverse1TestSuite {

}

```

Snippet of results


Test Results
JUnit_Palindrome2.JUnit_Palindrome2TestSuite ×
JUnit_Reverse1.JUnit_Reverse1TestSuite ×

```
Tests passed: 71.43 %
5 tests passed, 2 tests failed. (0.063 s)
JUnit_Reverse1.JUnit_Reverse1TestSuite Failed
    JUnit_Reverse1.JUnit_Reverse1Test5.testMethodReverse_1
    JUnit_Reverse1.JUnit_Reverse1Test6.testMethodReverse_1
```

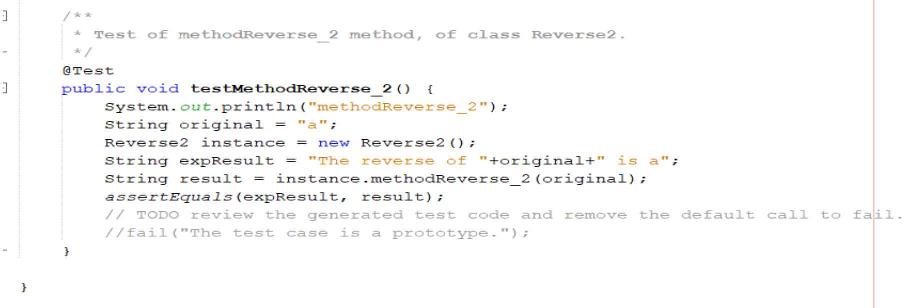
```
methodReverse_1
methodReverse_1
methodReverse_1
methodReverse_1
methodReverse_1
methodReverse_1
methodReverse_1
```

IV. Testing for Reverse_2.java

```
/*
Kelompok 06 PA2
1.  11321019        Elsaday Sianturi
2.  11321044        Yudhi Purba
3.  11321069        Maria Fransiska Giawa
4.  11321071        Putri Wita Marito

 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
package JUnit_Reverse2;

/**
 *
 * @author USER
 */
public class Reverse2 {
    public String methodReverse_2(String original){
      String hasil;
      String reverse = "";
      int length = original.length();
      for(int i=length-1; i>0; i--)
         reverse = reverse + original.charAt(i);

      hasil = "The reverse of "+original+" is "+reverse;
      return hasil;
    }
}
```

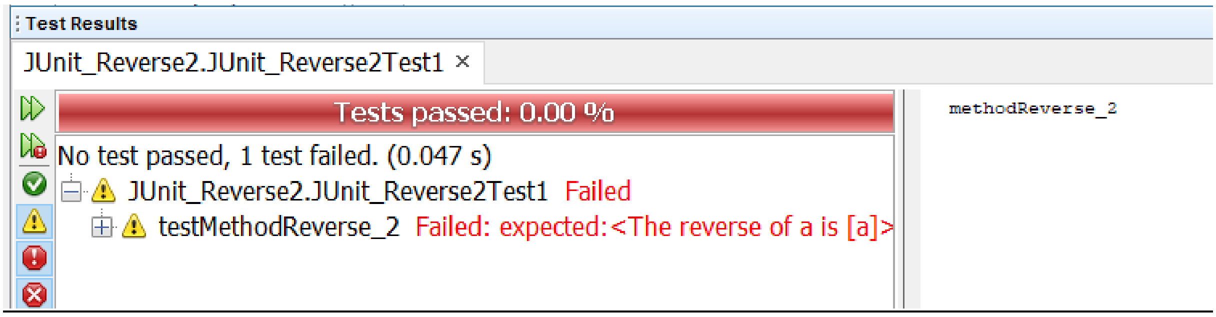
a. Input: a

Snippet of test case



```
    /**
     * Test of methodReverse_2 method, of class Reverse2.
     */
    @Test
    public void testMethodReverse_2() {
        System.out.println("methodReverse_2");
        String original = "a";
        Reverse2 instance = new Reverse2();
        String expResult = "The reverse of "+original+" is a";
        String result = instance.methodReverse_2(original);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

Snippet of results

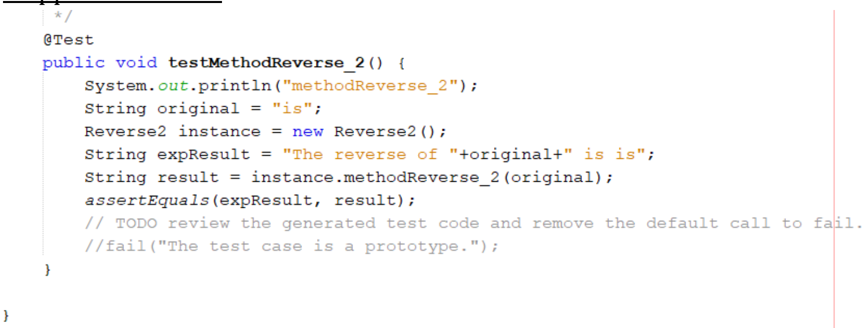


```
Tests passed: 0.00 %
No test passed, 1 test failed. (0.047 s)
JUnit_Reverse2.JUnit_Reverse2Test1  Failed
   testMethodReverse_2  Failed: expected:<The reverse of a is [a]>
```

```
methodReverse_2
```

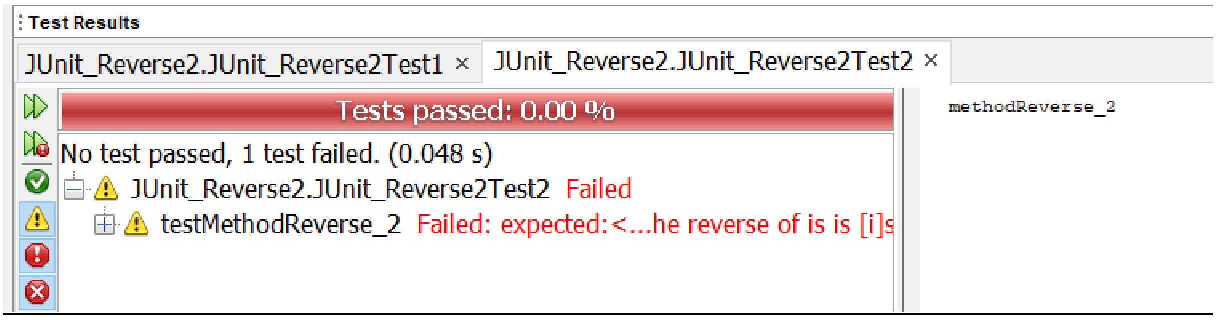
b. Input: is

Snippet of test case



```
    */
    @Test
    public void testMethodReverse_2() {
        System.out.println("methodReverse_2");
        String original = "is";
        Reverse2 instance = new Reverse2();
        String expResult = "The reverse of "+original+" is is";
        String result = instance.methodReverse_2(original);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

Snippet of results



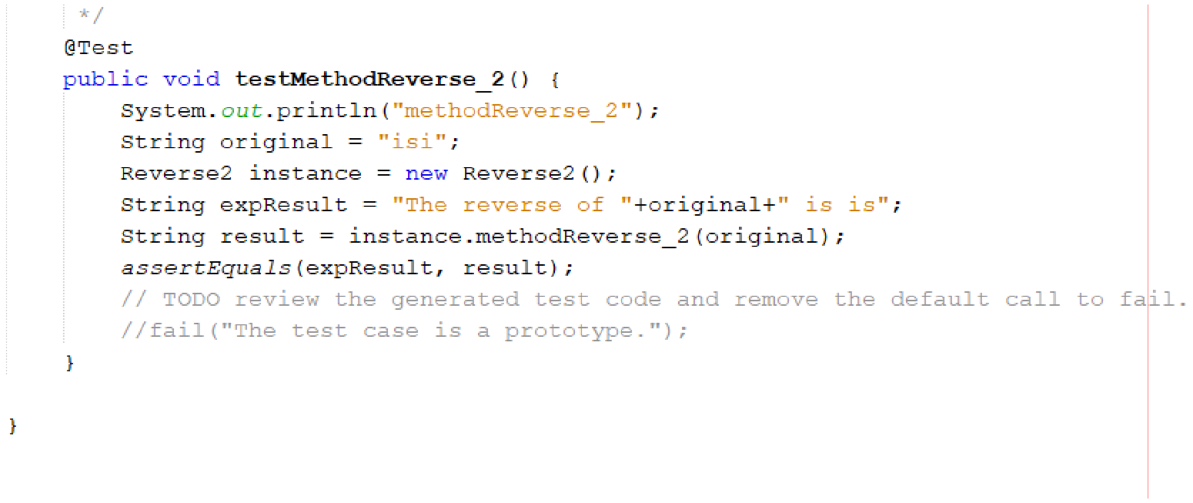
Test Results
JUnit_Reverse2.JUnit_Reverse2Test1 ×
JUnit_Reverse2.JUnit_Reverse2Test2 ×

```
Tests passed: 0.00 %
No test passed, 1 test failed. (0.048 s)
  JUnit_Reverse2.JUnit_Reverse2Test2 Failed
    testMethodReverse_2 Failed: expected:<...he reverse of is is [i]s
```

```
methodReverse_2
```

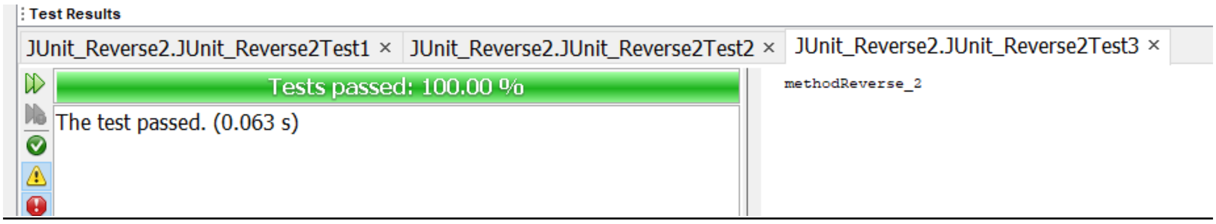
c. Input: isi

Snippet of test case



```
    */
    @Test
    public void testMethodReverse_2() {
        System.out.println("methodReverse_2");
        String original = "isi";
        Reverse2 instance = new Reverse2();
        String expResult = "The reverse of "+original+" is is";
        String result = instance.methodReverse_2(original);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

Snippet of results



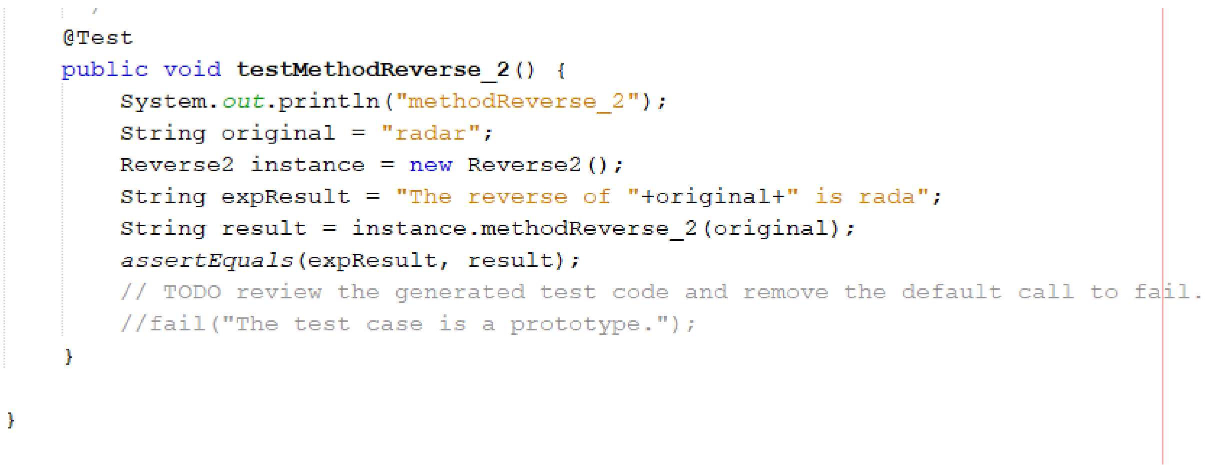
Test Results
JUnit_Reverse2.JUnit_Reverse2Test1 ×
JUnit_Reverse2.JUnit_Reverse2Test2 ×
JUnit_Reverse2.JUnit_Reverse2Test3 ×

```
Tests passed: 100.00 %
The test passed. (0.063 s)
```

```
methodReverse_2
```

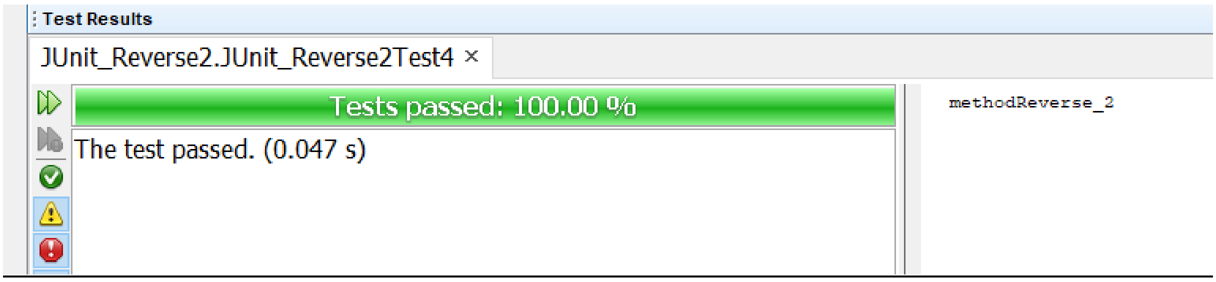
d. Input: radar

Snippet of test case



```
    @Test
    public void testMethodReverse_2() {
        System.out.println("methodReverse_2");
        String original = "radar";
        Reverse2 instance = new Reverse2();
        String expResult = "The reverse of "+original+" is rada";
        String result = instance.methodReverse_2(original);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

Snippet of results

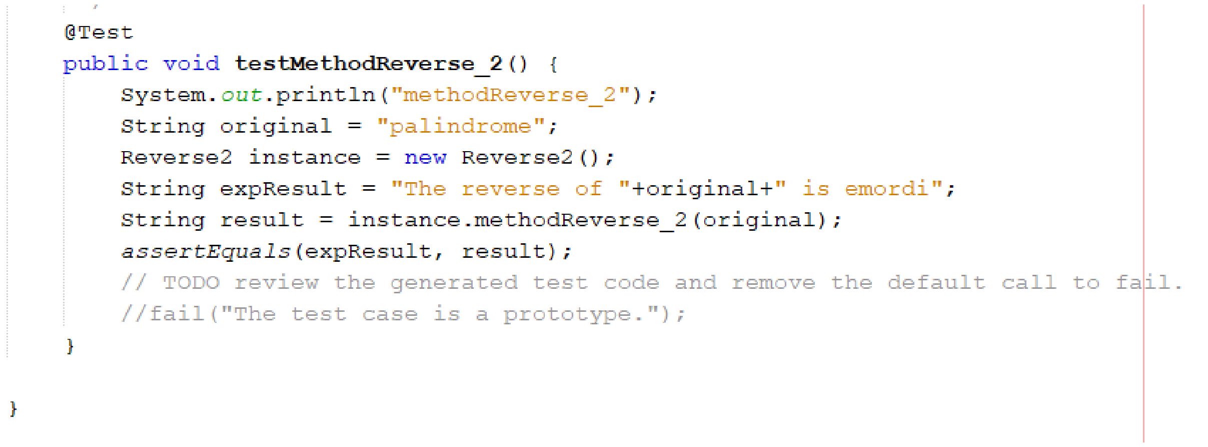


```
Tests passed: 100.00 %
The test passed. (0.047 s)
```

```
methodReverse_2
```

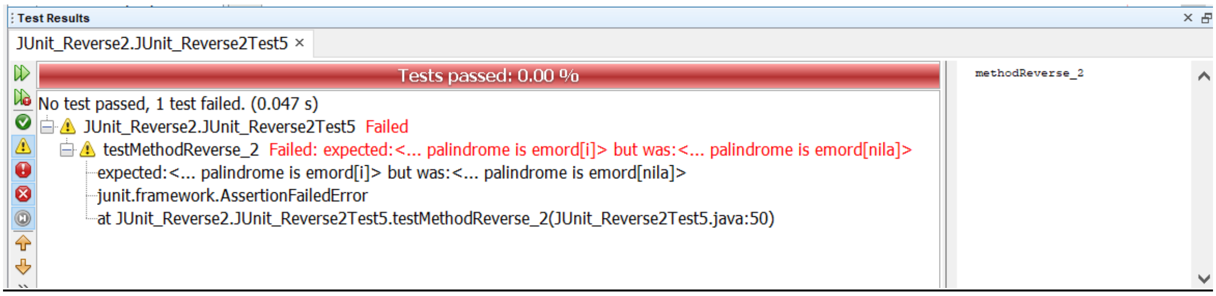
e. Input: palindrome

Snippet of test case



```
    @Test
    public void testMethodReverse_2() {
        System.out.println("methodReverse_2");
        String original = "palindrome";
        Reverse2 instance = new Reverse2();
        String expResult = "The reverse of "+original+" is emordi";
        String result = instance.methodReverse_2(original);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

Snippet of results

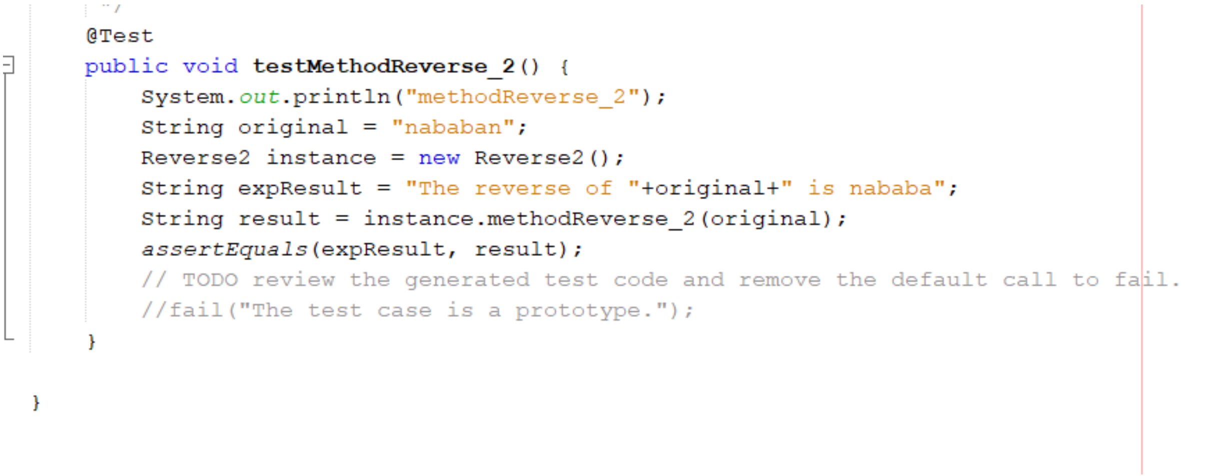


```
Tests passed: 0.00 %
No test passed, 1 test failed. (0.047 s)
JUnit_Reverse2.JUnit_Reverse2Test5  Failed
  testMethodReverse_2  Failed: expected:<... palindrome is emord[i]> but was:<... palindrome is emord[nila]>
    expected:<... palindrome is emord[i]> but was:<... palindrome is emord[nila]>
    junit.framework.AssertionFailedError
    at JUnit_Reverse2.JUnit_Reverse2Test5.testMethodReverse_2(JUnit_Reverse2Test5.java:50)
```

```
methodReverse_2
```

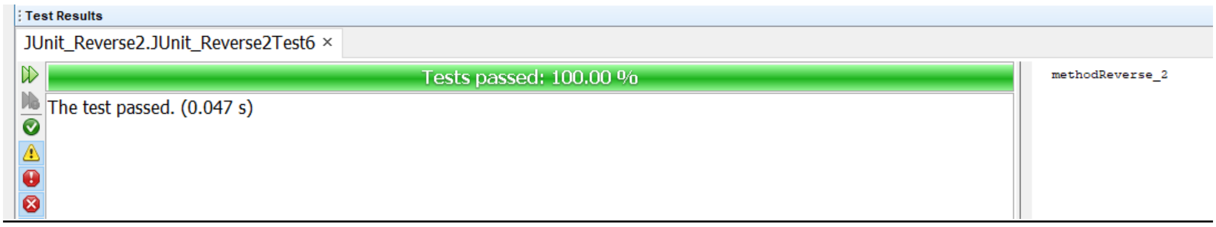
f. Input: nababan

Snippet of test case



```
    */
    @Test
    public void testMethodReverse_2() {
        System.out.println("methodReverse_2");
        String original = "nababan";
        Reverse2 instance = new Reverse2();
        String expResult = "The reverse of "+original+" is nababa";
        String result = instance.methodReverse_2(original);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

Snippet of results

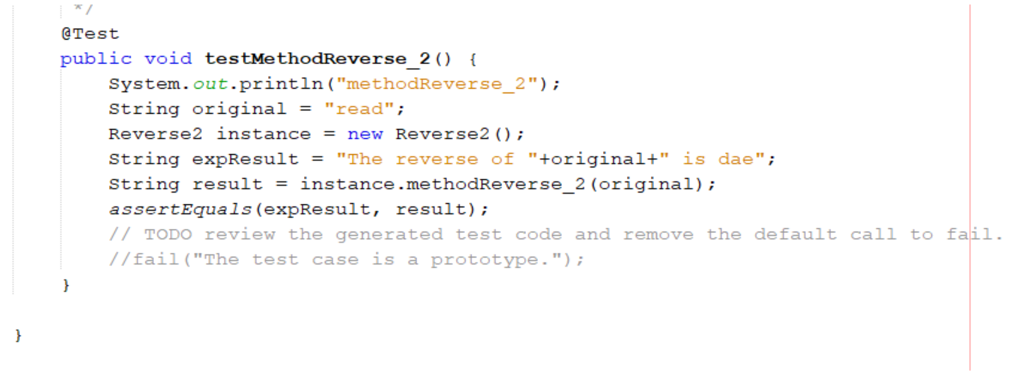


```
The test passed. (0.047 s)
```

```
methodReverse_2
```

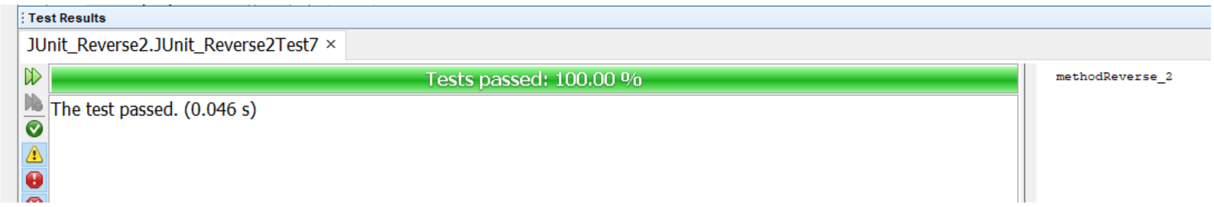
g. Input: read

Snippet of test case



```
    */
    @Test
    public void testMethodReverse_2() {
        System.out.println("methodReverse_2");
        String original = "read";
        Reverse2 instance = new Reverse2();
        String expResult = "The reverse of "+original+" is dae";
        String result = instance.methodReverse_2(original);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

Snippet of results

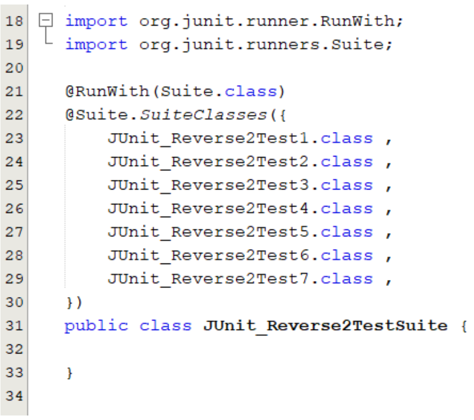


```
The test passed. (0.046 s)
```

```
methodReverse_2
```

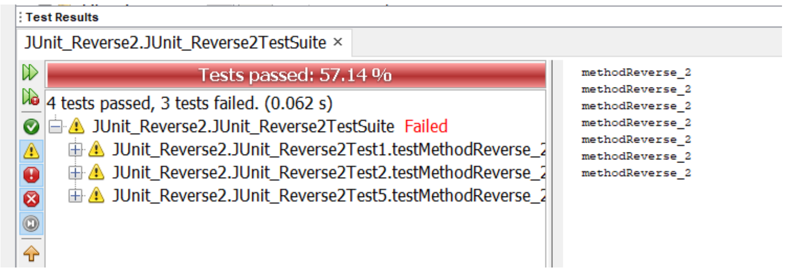
h. Test Suite

Snippet of test case



```
import org.junit.runner.RunWith;
import org.junit.runners.Suite;

@RunWith(Suite.class)
@Suite.SuiteClasses({
    JUnit_Reverse2Test1.class ,
    JUnit_Reverse2Test2.class ,
    JUnit_Reverse2Test3.class ,
    JUnit_Reverse2Test4.class ,
    JUnit_Reverse2Test5.class ,
    JUnit_Reverse2Test6.class ,
    JUnit_Reverse2Test7.class ,
})
public class JUnit_Reverse2TestSuite {

}
```

Snippet of results



```
Tests passed: 57.14 %
4 tests passed, 3 tests failed. (0.062 s)
JUnit_Reverse2.JUnit_Reverse2TestSuite  Failed
    JUnit_Reverse2.JUnit_Reverse2Test1.testMethodReverse_2
    JUnit_Reverse2.JUnit_Reverse2Test2.testMethodReverse_2
    JUnit_Reverse2.JUnit_Reverse2Test5.testMethodReverse_2
```

```
methodReverse_2
methodReverse_2
methodReverse_2
methodReverse_2
methodReverse_2
methodReverse_2
methodReverse_2
```

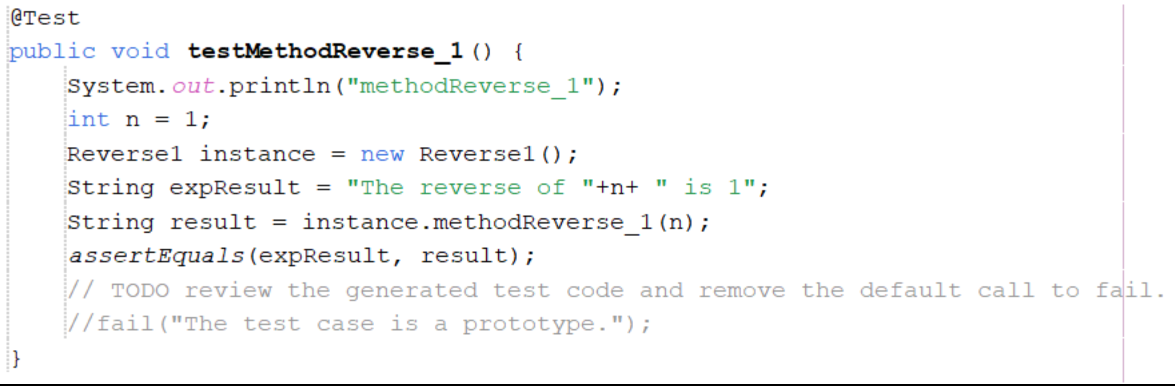
Testing for Modified Program

I. Testing for Reverse1

```
/*
Kelompok 06 PA2
1.   11321019        Elsaday Sianturi
2.   11321044        Yudhi Purba
3.   11321069        Maria Fransiska Giawa
4.   11321071        Putri Wita Marito

 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
package JUnit_Reverse1;

import java.io.BufferedReader;
import java.io.InputStreamReader;

/**
 *
 * @author USER
 */
public class Reverse1 {
    public String methodReverse_1(int n){
        String hasil;
        BufferedReader br = new BufferedReader(new InputStreamReader(System.in));
        int r;
        int rev = 0;
        int number = n;

        while(n>0){
            r = n%10;
            rev = rev*10+r;
            n = n/10;
        }

        hasil = "The reverse of "+number+ " is "+rev;
        return hasil;
    }
}
```

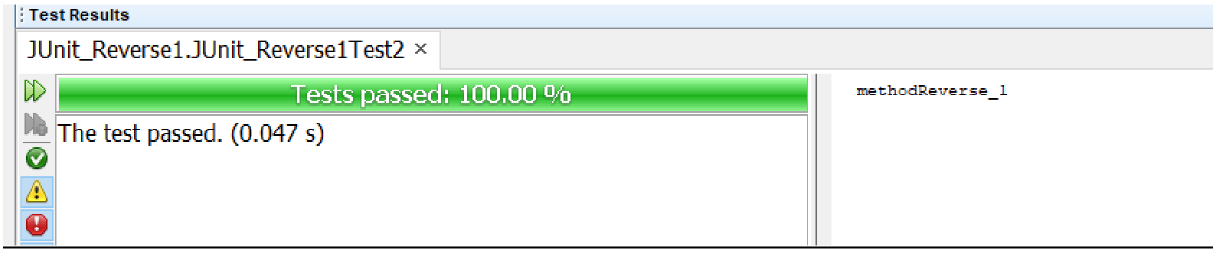
a. Input: 1

Snippet of test case



```
@Test
public void testMethodReverse_1() {
    System.out.println("methodReverse_1");
    int n = 1;
    Reverse1 instance = new Reverse1();
    String expResult = "The reverse of "+n+ " is 1";
    String result = instance.methodReverse_1(n);
    assertEquals(expResult, result);
    // TODO review the generated test code and remove the default call to fail.
    //fail("The test case is a prototype.");
}
```

Snippet of results



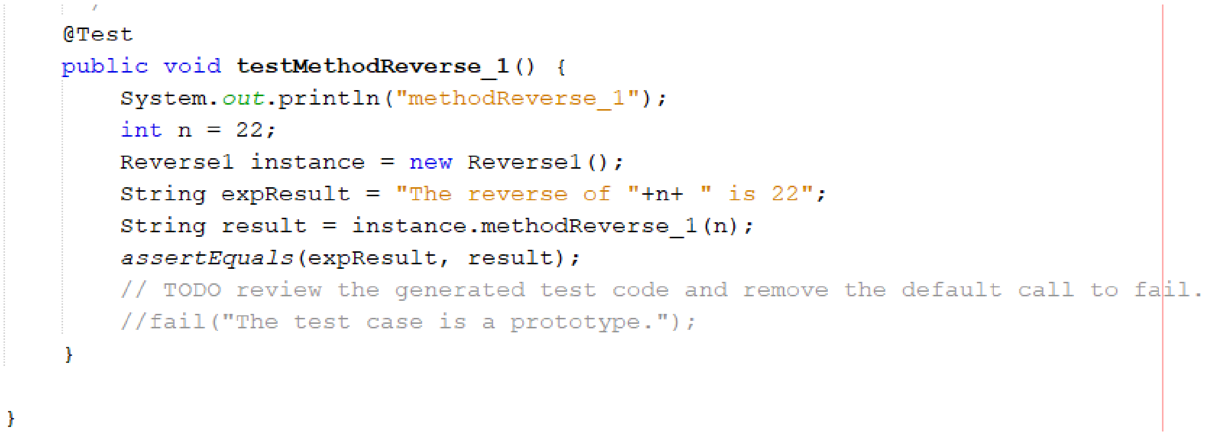
Tests passed: 100.00 %

The test passed. (0.047 s)

```
methodReverse_1
```

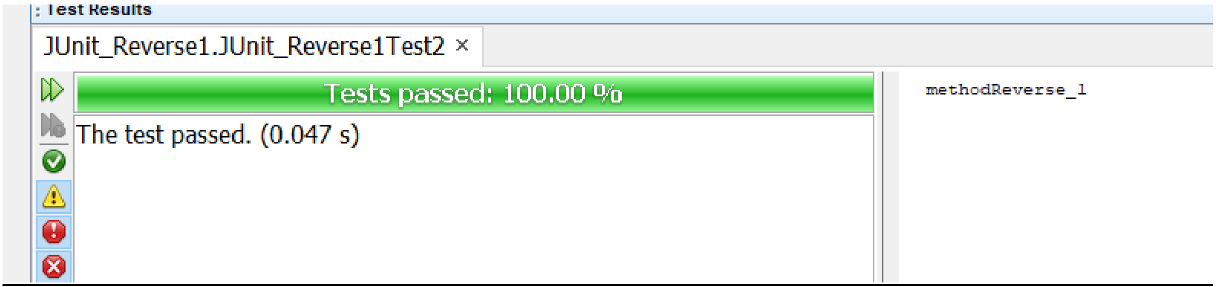
b. Input: 22

Snippet of test case



```
    @Test
    public void testMethodReverse_1() {
        System.out.println("methodReverse_1");
        int n = 22;
        Reverse1 instance = new Reverse1();
        String expResult = "The reverse of "+n+ " is 22";
        String result = instance.methodReverse_1(n);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

Snippet of results



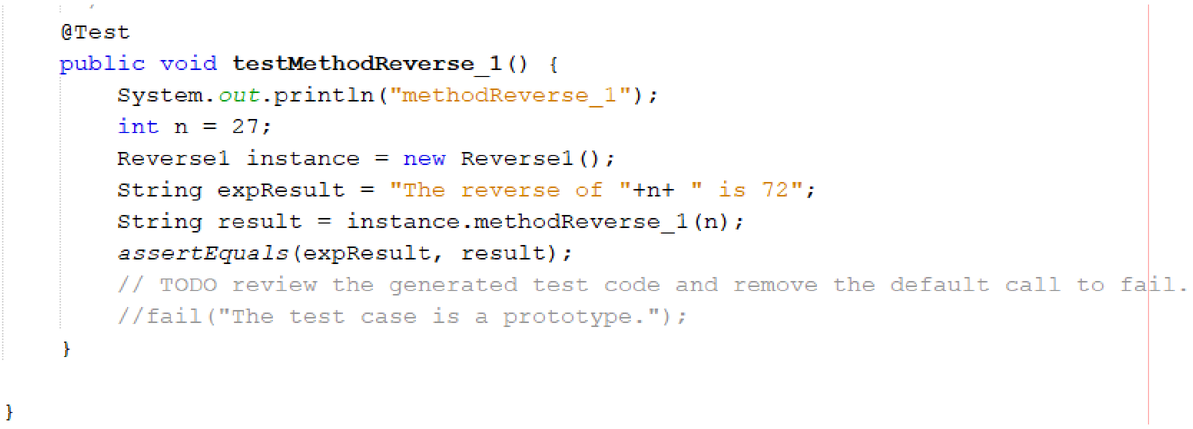
Tests passed: 100.00 %

The test passed. (0.047 s)

```
methodReverse_1
```

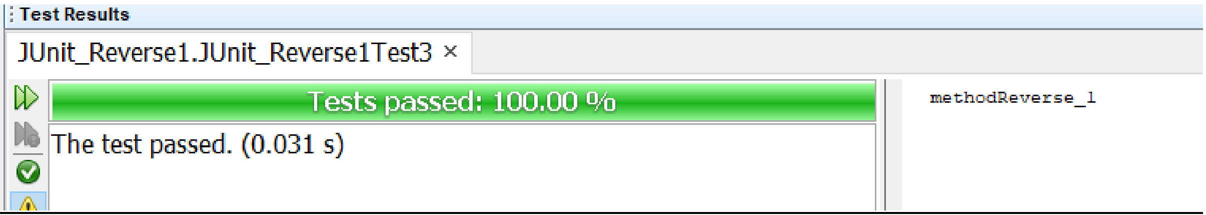
c. Input: 27

Snippet of test case



```
    @Test
    public void testMethodReverse_1() {
        System.out.println("methodReverse_1");
        int n = 27;
        Reverse1 instance = new Reverse1();
        String expResult = "The reverse of "+n+ " is 72";
        String result = instance.methodReverse_1(n);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

Snippet of results



Test Results

JUnit_Reverse1.JUnit_Reverse1Test3 ×

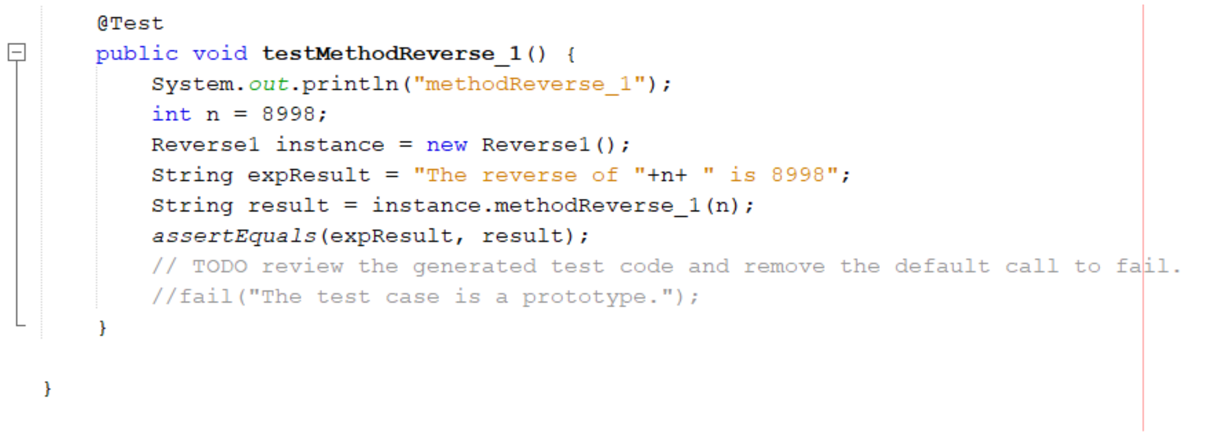
Tests passed: 100.00 %

The test passed. (0.031 s)

```
methodReverse_1
```

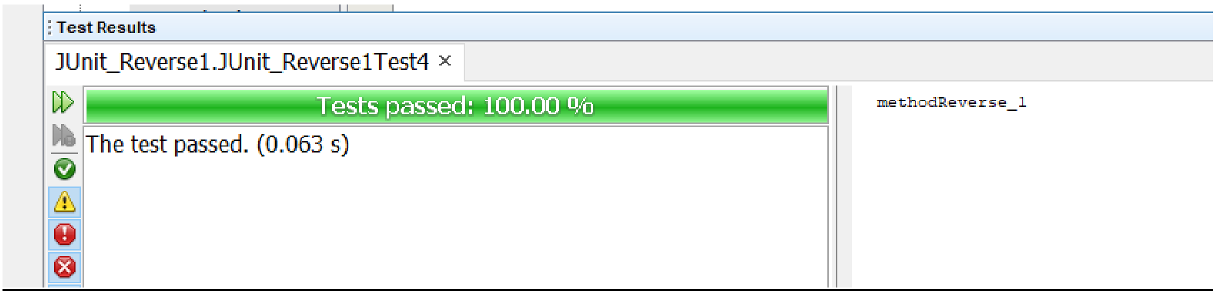
d. Input: 8998

Snippet of test case



```
    @Test
    public void testMethodReverse_1() {
        System.out.println("methodReverse_1");
        int n = 8998;
        Reverse1 instance = new Reverse1();
        String expResult = "The reverse of "+n+ " is 8998";
        String result = instance.methodReverse_1(n);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

Snippet of results



Test Results

JUnit_Reverse1.JUnit_Reverse1Test4 ×

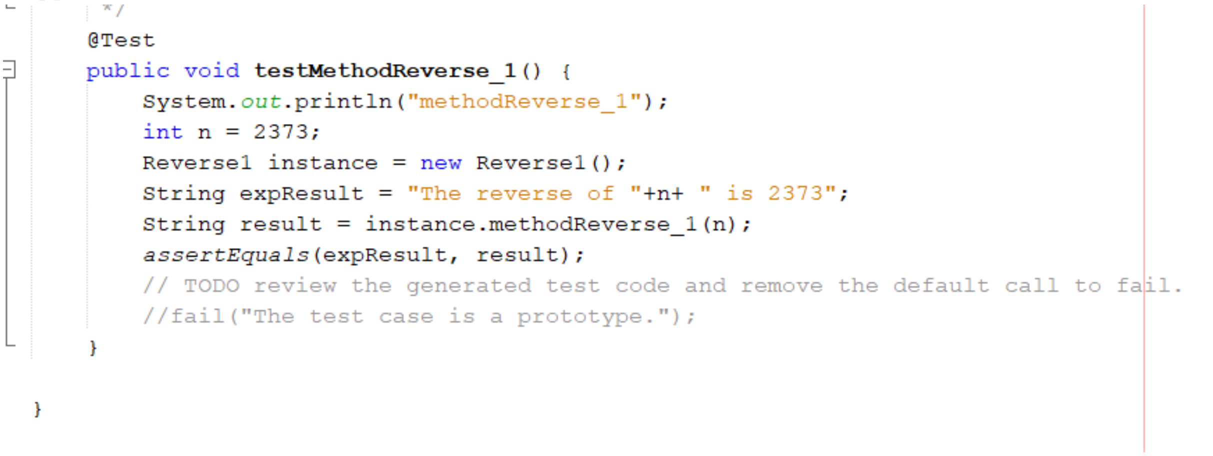
Tests passed: 100.00 %

The test passed. (0.063 s)

```
methodReverse_1
```

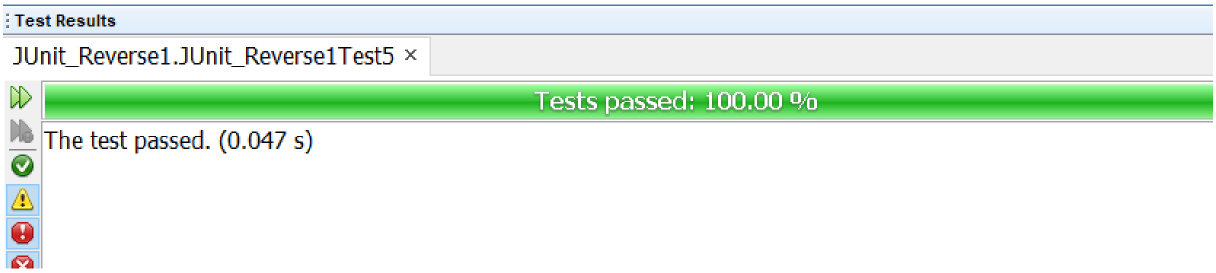
e. Input: 2373

Snippet of test case



```
     */
    @Test
    public void testMethodReverse_1() {
        System.out.println("methodReverse_1");
        int n = 2373;
        Reverse1 instance = new Reverse1();
        String expResult = "The reverse of "+n+ " is 2373";
        String result = instance.methodReverse_1(n);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

Snippet of results



Test Results

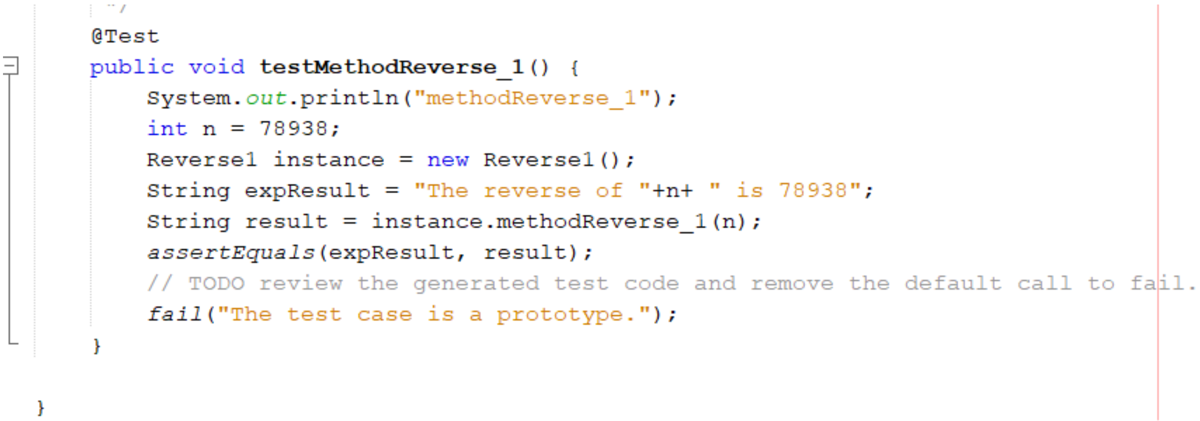
JUnit_Reverse1.JUnit_Reverse1Test5 ×

Tests passed: 100.00 %

The test passed. (0.047 s)

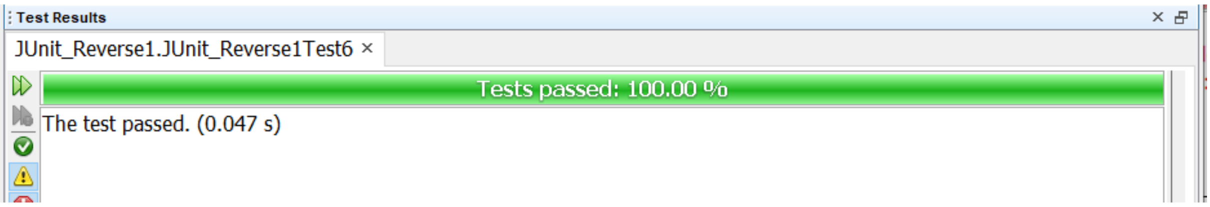
f. Input: 78938

Snippet of test case



```
    */
    @Test
    public void testMethodReverse_1() {
        System.out.println("methodReverse_1");
        int n = 78938;
        Reverse1 instance = new Reverse1();
        String expResult = "The reverse of "+n+ " is 78938";
        String result = instance.methodReverse_1(n);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        fail("The test case is a prototype.");
    }

}
```

Snippet of results



Test Results

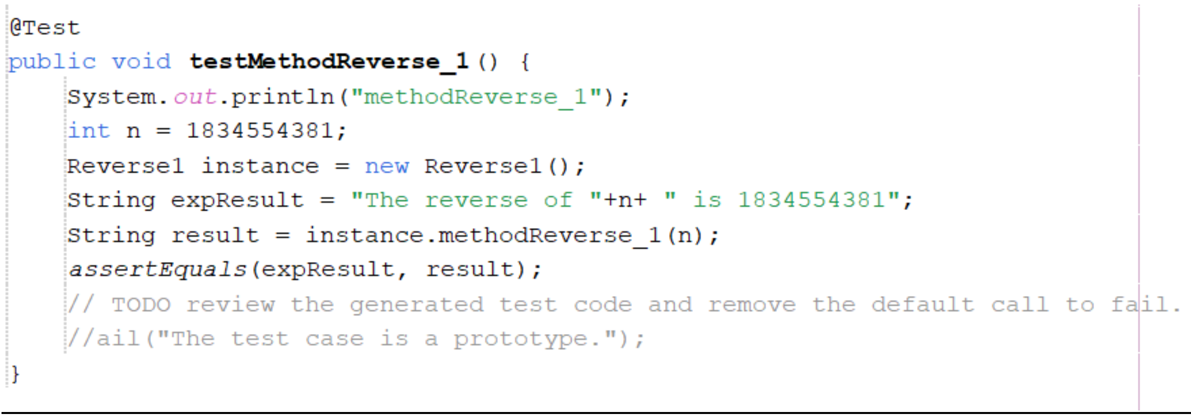
JUnit_Reverse1.JUnit_Reverse1Test6 ×

Tests passed: 100.00 %

The test passed. (0.047 s)

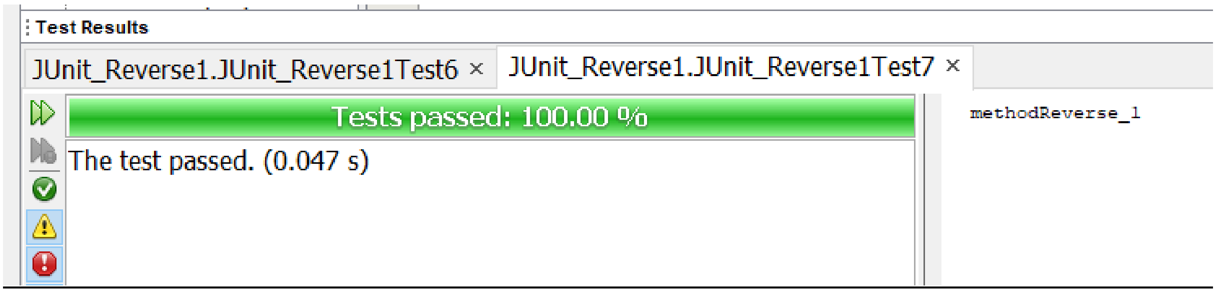
g. Input: 1834554381

Snippet of test case



```
@Test
public void testMethodReverse_1() {
    System.out.println("methodReverse_1");
    int n = 1834554381;
    Reverse1 instance = new Reverse1();
    String expResult = "The reverse of "+n+ " is 1834554381";
    String result = instance.methodReverse_1(n);
    assertEquals(expResult, result);
    // TODO review the generated test code and remove the default call to fail.
    //ail("The test case is a prototype.");
}
```

Snippet of results

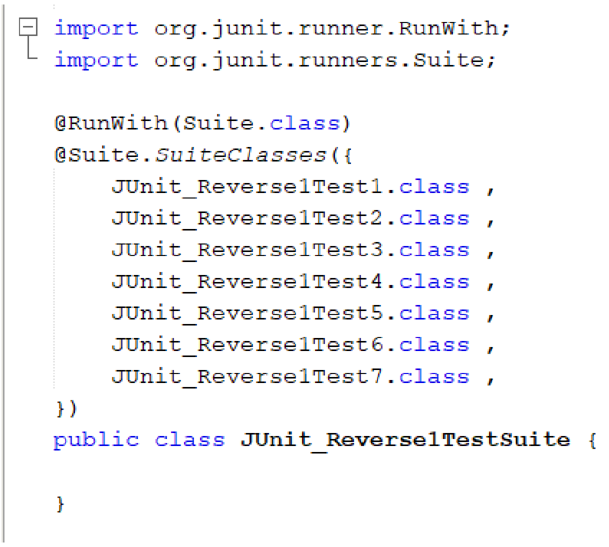

Test Results
JUnit_Reverse1.JUnit_Reverse1Test6 ×
JUnit_Reverse1.JUnit_Reverse1Test7 ×
Tests passed: 100.00 %

The test passed. (0.047 s)

```
methodReverse_1
```

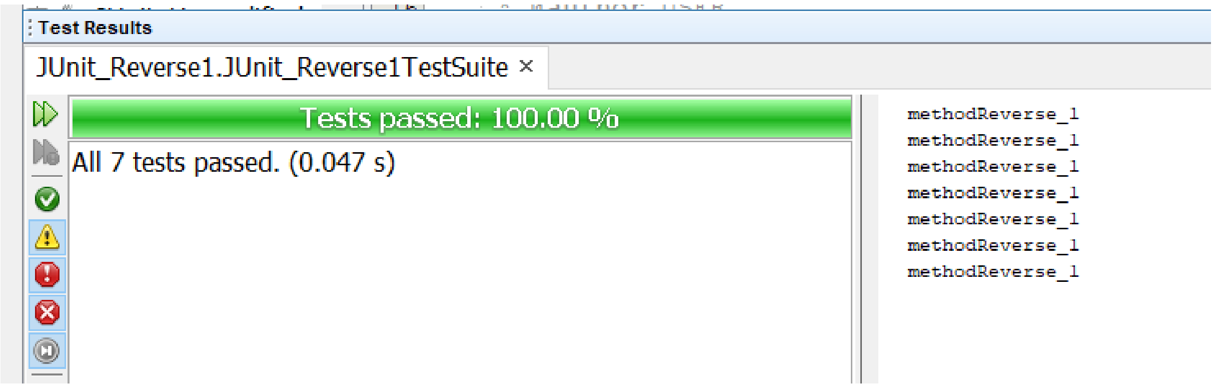
h. TestSuite

Snippet of test case



```
import org.junit.runner.RunWith;
import org.junit.runners.Suite;

@RunWith(Suite.class)
@Suite.SuiteClasses({
    JUnit_Reverse1Test1.class ,
    JUnit_Reverse1Test2.class ,
    JUnit_Reverse1Test3.class ,
    JUnit_Reverse1Test4.class ,
    JUnit_Reverse1Test5.class ,
    JUnit_Reverse1Test6.class ,
    JUnit_Reverse1Test7.class ,
})
public class JUnit_Reverse1TestSuite {

}
```

Snippet of results



All 7 tests passed. (0.047 s)

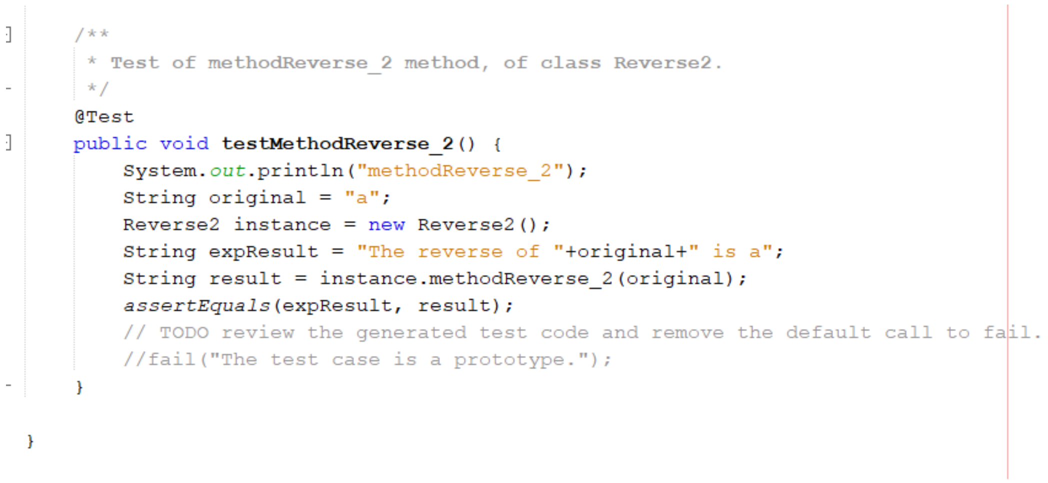
```
methodReverse_1
methodReverse_1
methodReverse_1
methodReverse_1
methodReverse_1
methodReverse_1
methodReverse_1
```

II. Testing for Reverse2

```
/*
Kelompok 06 PA2
1.   11321019        Elsaday Sianturi
2.   11321044        Yudhi Purba
3.   11321069        Maria Fransiska Giawa
4.   11321071        Putri Wita Marito

 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
package JUnit_Reverse2;

/**
 *
 * @author USER
 */
public class Reverse2 {
    public String methodReverse_2(String original){
     String hasil;
     String reverse = "";
     int length = original.length();
     for(int i=length-1; i>0; i--)
        reverse = reverse + original.charAt(i);

     hasil = "The reverse of "+original+" is "+reverse;
     return hasil;
   }
}
```

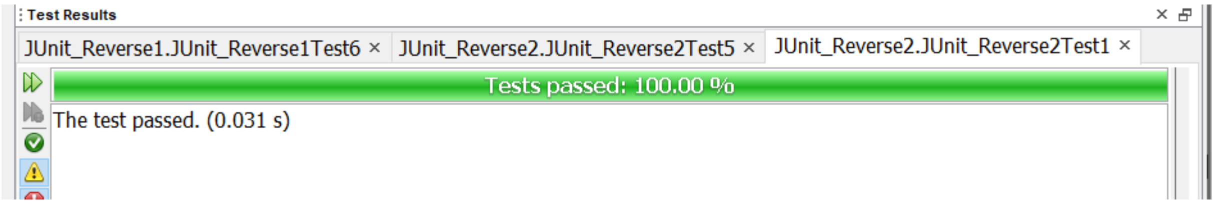
a. Input: a

Snippet of test case



```
    /**
     * Test of methodReverse_2 method, of class Reverse2.
     */
    @Test
    public void testMethodReverse_2() {
        System.out.println("methodReverse_2");
        String original = "a";
        Reverse2 instance = new Reverse2();
        String expResult = "The reverse of "+original+" is a";
        String result = instance.methodReverse_2(original);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

Snippet of results

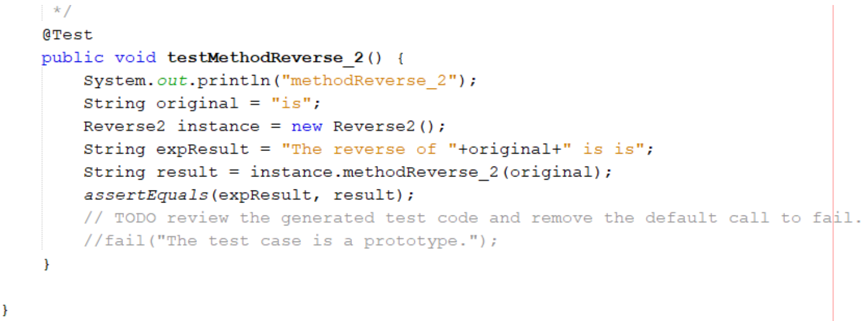

Test Results
JUnit_Reverse1.JUnit_Reverse1Test6 ×
JUnit_Reverse2.JUnit_Reverse2Test5 ×
JUnit_Reverse2.JUnit_Reverse2Test1 ×

Tests passed: 100.00 %

The test passed. (0.031 s)

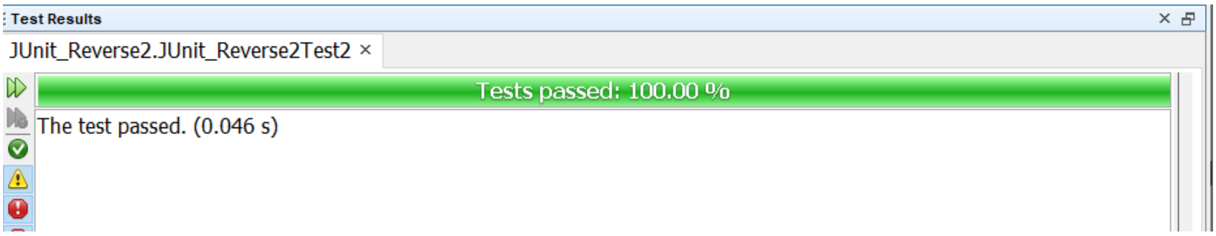
b. Input: is

Snippet of test case



```
    */
    @Test
    public void testMethodReverse_2() {
        System.out.println("methodReverse_2");
        String original = "is";
        Reverse2 instance = new Reverse2();
        String expResult = "The reverse of "+original+" is is";
        String result = instance.methodReverse_2(original);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

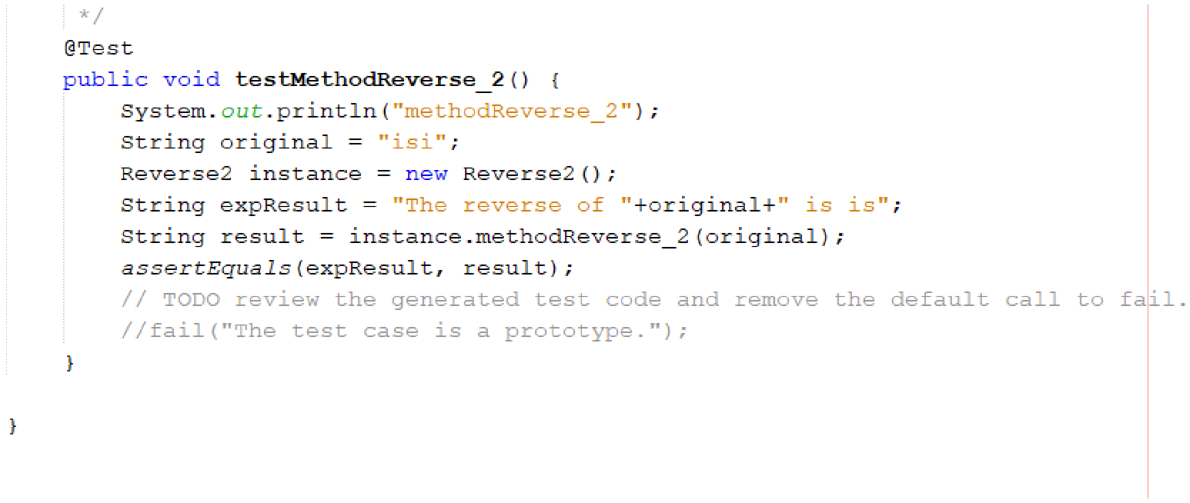
Snippet of results



```
Tests passed: 100.00 %
The test passed. (0.046 s)
```

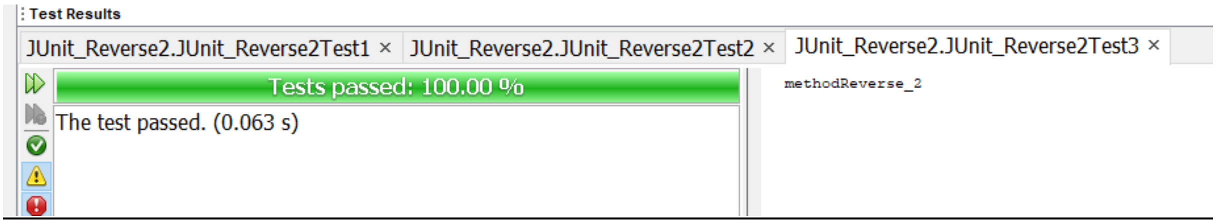
c. Input: isi

Snippet of test case



```
    */
    @Test
    public void testMethodReverse_2() {
        System.out.println("methodReverse_2");
        String original = "isi";
        Reverse2 instance = new Reverse2();
        String expResult = "The reverse of "+original+" is is";
        String result = instance.methodReverse_2(original);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

Snippet of results



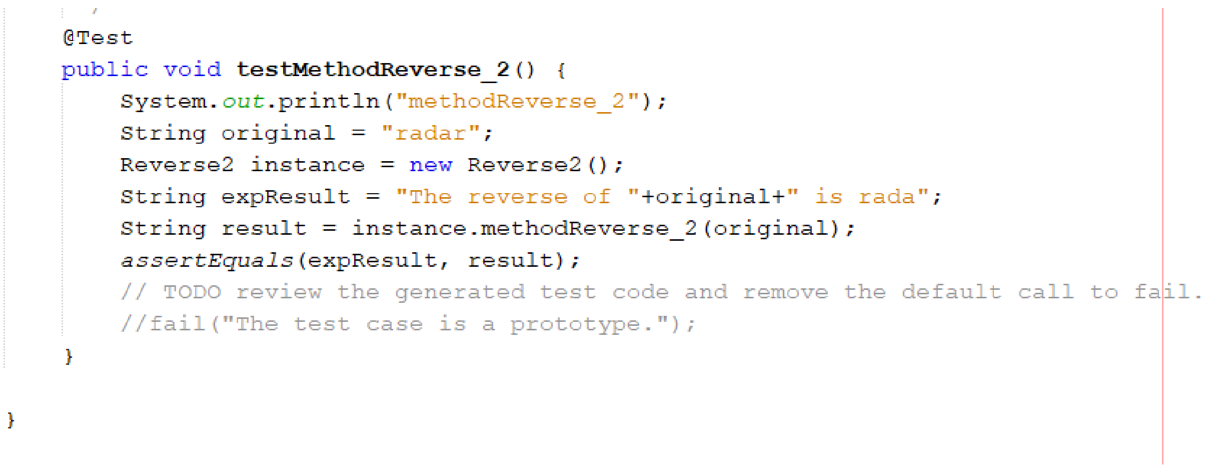
Test Results
JUnit_Reverse2.JUnit_Reverse2Test1 ×
JUnit_Reverse2.JUnit_Reverse2Test2 ×
JUnit_Reverse2.JUnit_Reverse2Test3 ×

```
Tests passed: 100.00 %
The test passed. (0.063 s)
```

```
methodReverse_2
```

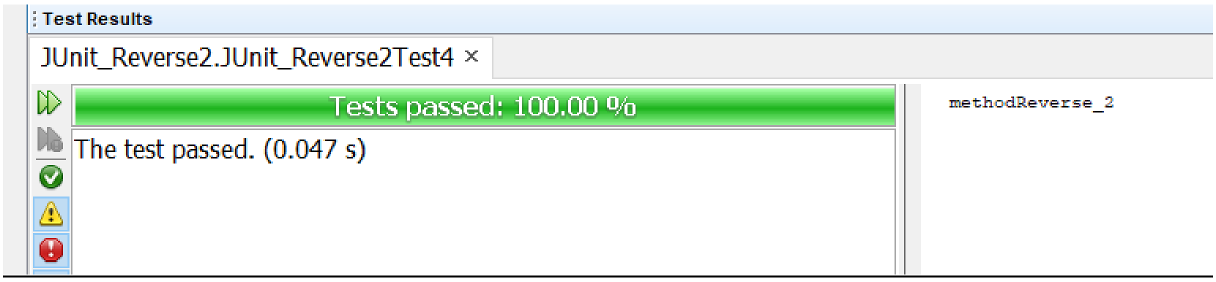
d. Input: radar

Snippet of test case



```
    @Test
    public void testMethodReverse_2() {
        System.out.println("methodReverse_2");
        String original = "radar";
        Reverse2 instance = new Reverse2();
        String expResult = "The reverse of "+original+" is rada";
        String result = instance.methodReverse_2(original);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

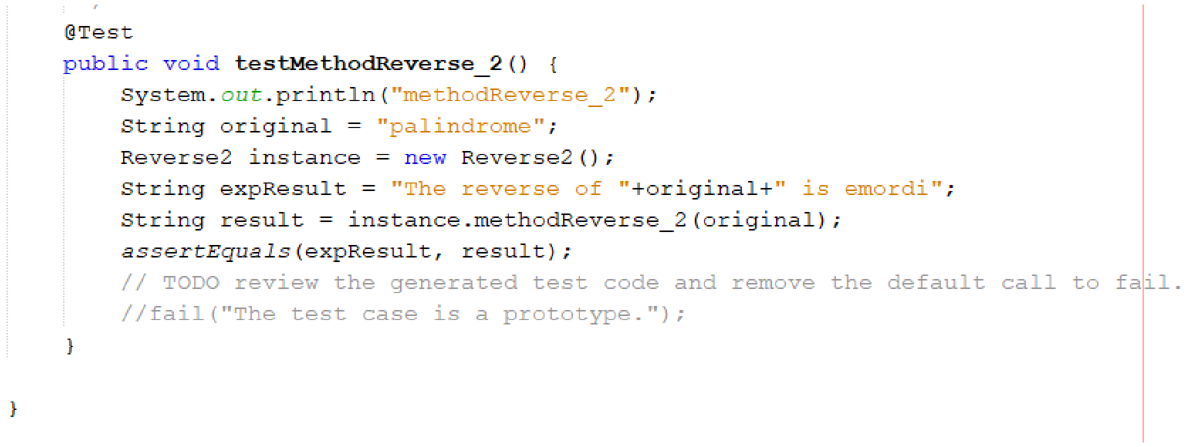
Snippet of results



```
Test Results
JUnit_Reverse2.JUnit_Reverse2Test4
Tests passed: 100.00 %
The test passed. (0.047 s)
methodReverse_2
```

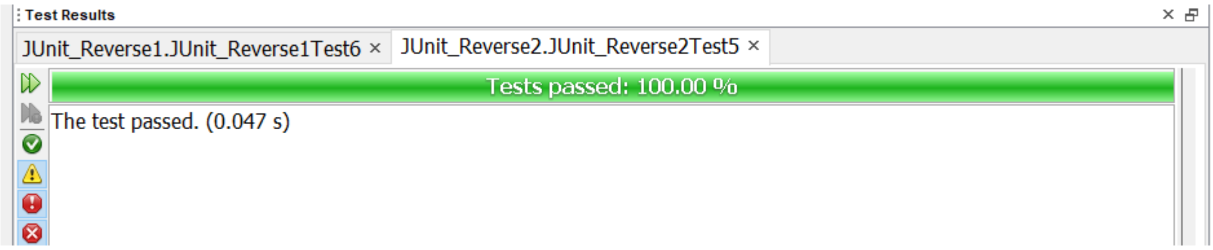
e. Input: palindrome

Snippet of test case



```
    @Test
    public void testMethodReverse_2() {
        System.out.println("methodReverse_2");
        String original = "palindrome";
        Reverse2 instance = new Reverse2();
        String expResult = "The reverse of "+original+" is emordi";
        String result = instance.methodReverse_2(original);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

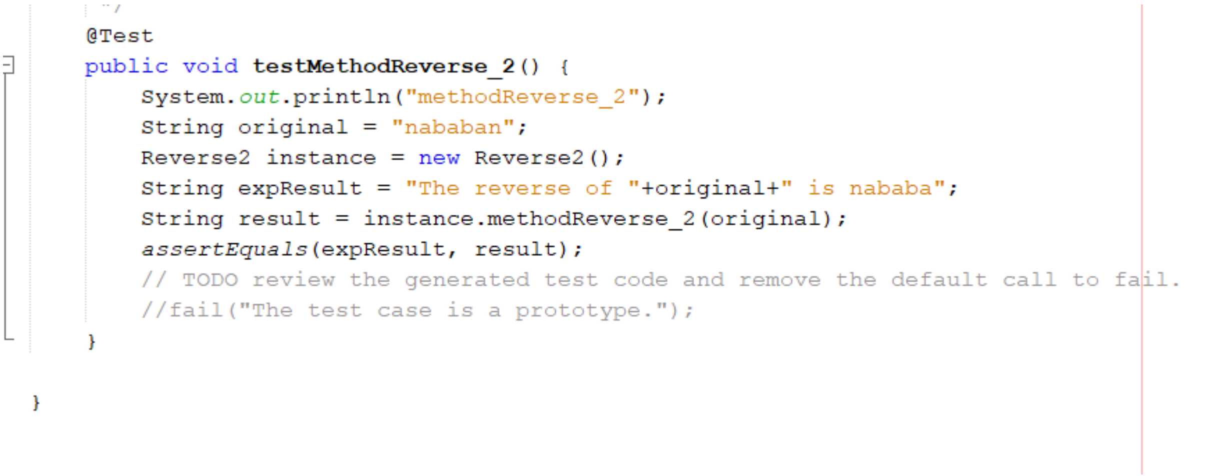
Snippet of results



```
Test Results
JUnit_Reverse1.JUnit_Reverse1Test6    JUnit_Reverse2.JUnit_Reverse2Test5
Tests passed: 100.00 %
The test passed. (0.047 s)
```

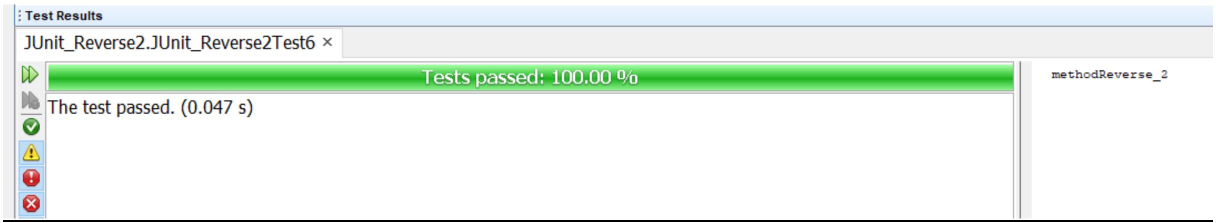
f. Input: nababan

Snippet of test case



```
     */
    @Test
    public void testMethodReverse_2() {
        System.out.println("methodReverse_2");
        String original = "nababan";
        Reverse2 instance = new Reverse2();
        String expResult = "The reverse of "+original+" is nababa";
        String result = instance.methodReverse_2(original);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

Snippet of results

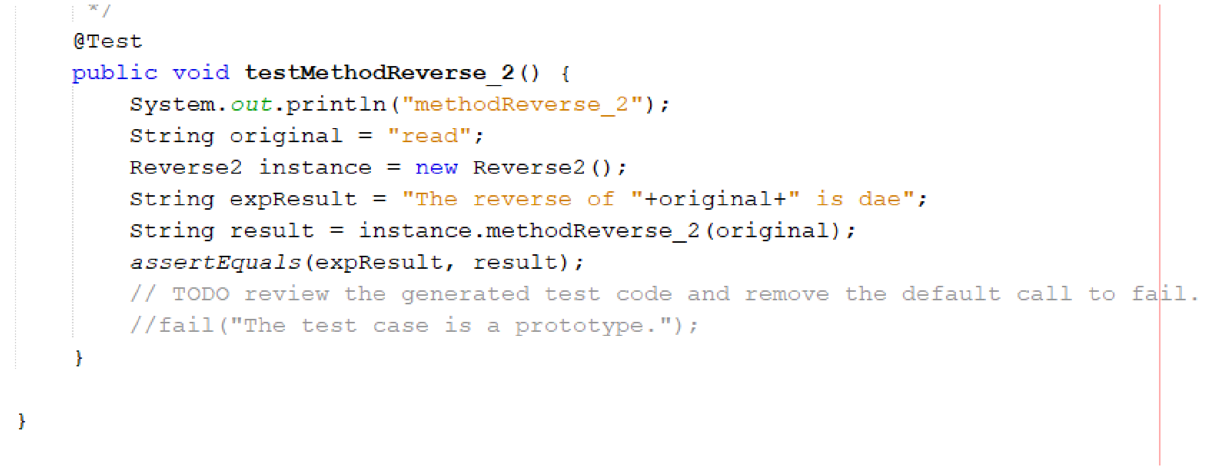


```
Test Results
JUnit_Reverse2.JUnit_Reverse2Test6 ×
Tests passed: 100.00 %
The test passed. (0.047 s)
```

```
methodReverse_2
```

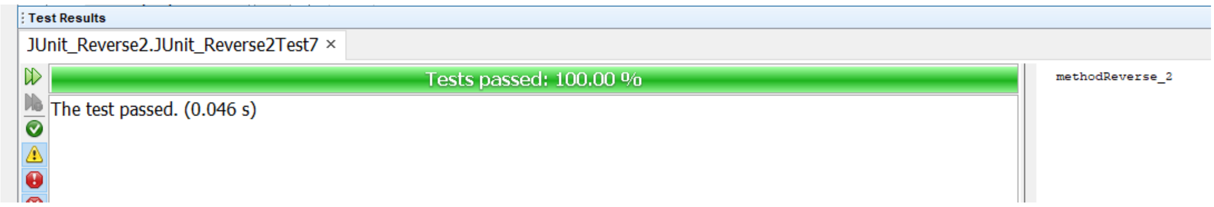
g. Input: read

Snippet of test case



```
     */
    @Test
    public void testMethodReverse_2() {
        System.out.println("methodReverse_2");
        String original = "read";
        Reverse2 instance = new Reverse2();
        String expResult = "The reverse of "+original+" is dae";
        String result = instance.methodReverse_2(original);
        assertEquals(expResult, result);
        // TODO review the generated test code and remove the default call to fail.
        //fail("The test case is a prototype.");
    }

}
```

Snippet of results

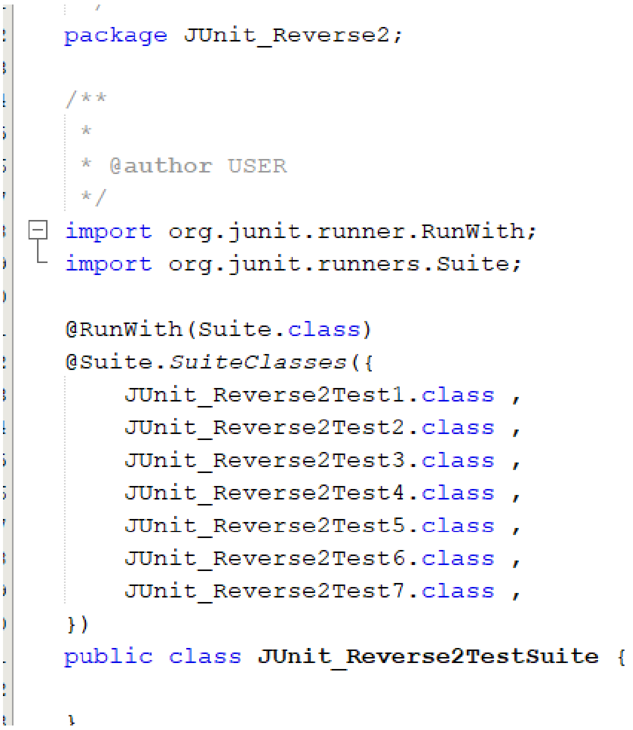


```
Test Results
JUnit_Reverse2.JUnit_Reverse2Test7 ×
Tests passed: 100.00 %
The test passed. (0.046 s)
```

```
methodReverse_2
```

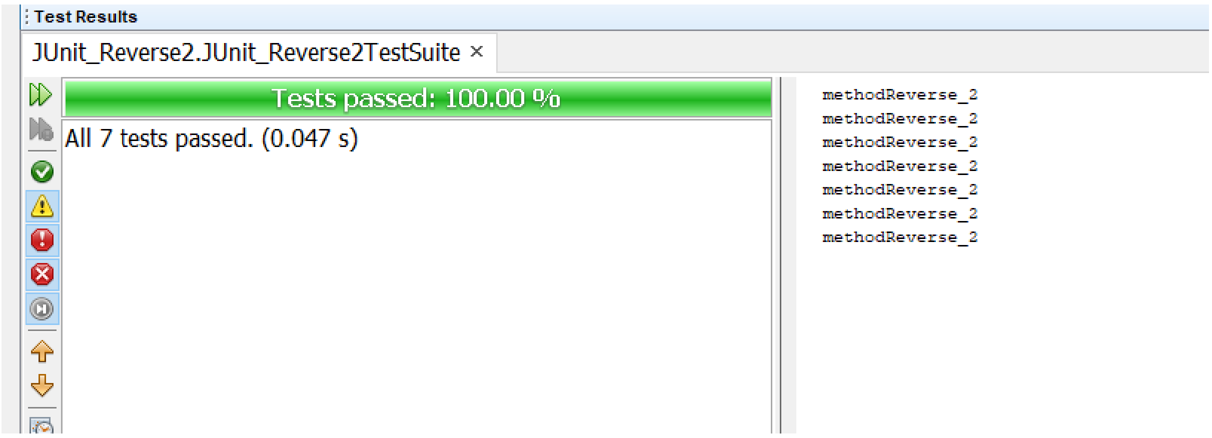
h. TestSuite

Snippet of test case



```
package JUnit_Reverse2;

/**
 *
 * @author USER
 */
import org.junit.runner.RunWith;
import org.junit.runners.Suite;

@RunWith(Suite.class)
@Suite.SuiteClasses({
    JUnit_Reverse2Test1.class ,
    JUnit_Reverse2Test2.class ,
    JUnit_Reverse2Test3.class ,
    JUnit_Reverse2Test4.class ,
    JUnit_Reverse2Test5.class ,
    JUnit_Reverse2Test6.class ,
    JUnit_Reverse2Test7.class ,
})
public class JUnit_Reverse2TestSuite {

}
```

Snippet of results



Tests passed: 100.00 %

All 7 tests passed. (0.047 s)

```
methodReverse_2
methodReverse_2
methodReverse_2
methodReverse_2
methodReverse_2
methodReverse_2
methodReverse_2
```