

Smt. Chandaben Mohanbhai Patel Institute of Computer Applications
Master of Computer Applications (MCA)
Semester - II
CA870 Software Quality Assurance

Assignment-3 Unit Testing with Junit

1. Write a Program to find given number is prime number or not.

Check List:

- Any Element of an Input set is Negative
- Any Element of an Input set is Alphabetic
- Any Element of an Input set is Special Symbol
- Any Element of an Input set is Zero
- There are More than one input

List	Checklist	Input	Expected Output
1.	Element Of an Input is Negative	-5	Error Message: Negative Not Allowed
2.	Element Of an Input is Alphabetic	A	Error Message: Alphabets Not Allowed
3.	Element Of an Input is Special Symbol	&	Error Message : Special Symbol Not Allowed
4.	Element Of an Input is Zero	0	Error Message : zero Not Allowed
5.	There are More than one input	(25,5,10)	Error Message : More than one input Not Allowed

Junit test code:-

```
package Admin;
```

```
public class primeornot {  
    public static boolean isPrime(int number) {
```

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```
    if (number <= 1) {  
        return false;  
    }  
  
    for (int i = 2; i <= number / 2; i++) {  
        if (number % i == 0) {  
            return false;  
        }  
    }  
  
    return true;  
}  
}  
  
package Admin;  
  
import org.junit.After;  
import org.junit.AfterClass;  
import org.junit.Before;  
import org.junit.BeforeClass;  
import org.junit.Test;  
import static org.junit.Assert.*;  
  
public class primeornotTest {  
  
    public primeornotTest() {
```

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```
}
```

```
@BeforeClass
```

```
public static void setUpClass() {
```

```
}
```

```
@AfterClass
```

```
public static void tearDownClass() {
```

```
}
```

```
@Before
```

```
public void setUp() {
```

```
}
```

```
@After
```

```
public void tearDown() {
```

```
}
```

```
/**
```

```
 * Test of isPrime method, of class primeornot.
```

```
 */
```

```
@Test
```

```
public void testIsPrime() {
```

```
    System.out.println("isPrime");
```

```
    int number = 5;
```

```
    boolean expResult = true;
```

```
    boolean result = primeornot.isPrime(number);
```

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```
assertEquals(expResult, result);

if(expResult==true){
    System.out.println("number is prime "+expResult);

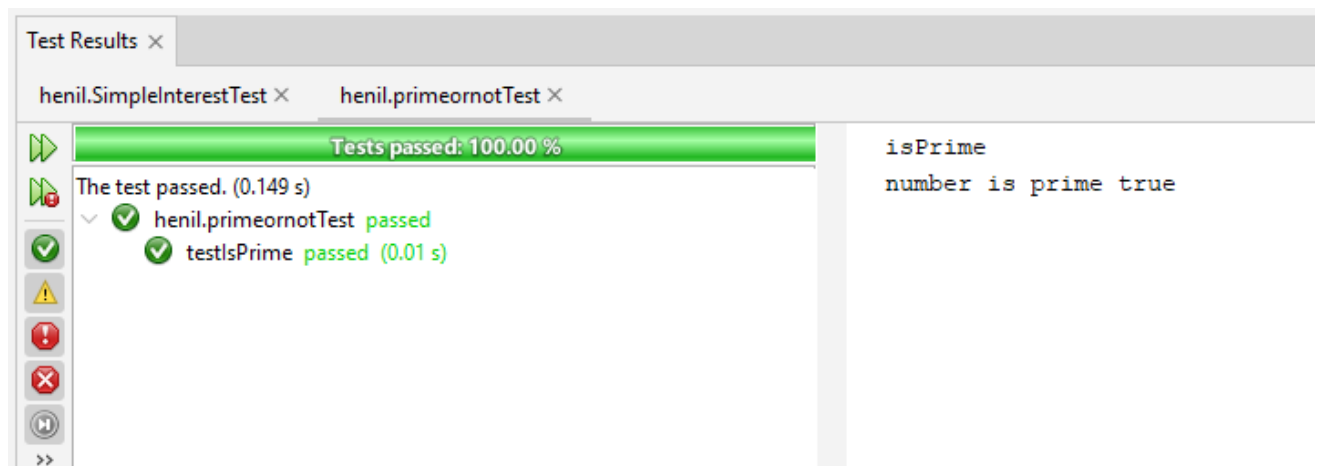
}else{
    System.out.println("number is not prime "+expResult);

}

// TODO review the generated test code and remove the default call to fail.
//fail("The test case is a prototype.");
}

}
```

Output:-



2. Write a program to calculate simple interest.

Check List:

- Any Element of an Input set is Negative
- Any Element of an Input set is Alphabetic

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- Any Element of an Input set is Special Symbol
- Any Element of an Input set is Zero
- There are Less than three input
- There are More than three input

List	Checklist	Input (P,R,N)	Expected Output
1.	Any Element Of an Input set is Negative	(-1500,2,5), (1500,-1,1), (1600,1,-4)	Error Message: Negative Not Allowed
2.	Any Element Of an Input set is Alphabetic	(A,2,5),(1500,B,1), (1600,1,A)	Error Message: Alphabets Not Allowed
3.	Any Element Of an Input set is Special Symbol	(!,5,5), (1500,#,1), (1600,15,&)	Error Message : Special Symbol Not Allowed
4.	Any Element Of an Input set is Zero	(0,25,5), (1500,0,1), (1600,15,0)	Error Message : zero Not Allowed
5.	There are Less than three input	(1500,25)	Error Message : less than three Not Allowed
6.	There are More than three input	(1500,25,5,10)	Error Message : More than three input Not Allowed
7.	First Input Must Principle Amount, Second Input Must Rate Of Interest, Third Input Must Number Of Years	(2,25000,5)	Error Message : Invalid input
8.	Correct input of P,R,N	(1500,10,5)	750

Junit test code:-

```
package Admin;

public class SimpleInterest {

    public float calcInt(int p,int r,int n){

        if(p<=0||r<=0||n<=0){
```

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```
        System.out.println("Zero or Negative number is not allowed");
    }

    return ((p*r*n));
}
}

package Admin;

import org.junit.After;
import org.junit.AfterClass;
import org.junit.Before;
import org.junit.BeforeClass;
import org.junit.Test;
import static org.junit.Assert.*;

public class SimpleInterestTest {

    public SimpleInterestTest() {

    }

    @BeforeClass
    public static void setUpClass() {

    }

    @AfterClass
```

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```
public static void tearDownClass() {  
}
```

@Before

```
public void setUp() {  
}
```

@After

```
public void tearDown() {  
}
```

@Test

```
public void testSomeMethod() {  
    // TODO review the generated test code and remove the default call to fail.  
    //fail("The test case is a prototype.");  
}
```

@Test

```
public void testCalcInt() {  
    System.out.println("calcInt");  
    int p = 5;  
    int r = 5;  
    int n = 5;  
    SimpleInterest instance = new SimpleInterest();  
    float expResult = 125.0F;  
    float result = instance.calcInt(p, r, n);
```

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```
assertEquals(expResult, result, 0);

System.out.println(expResult);

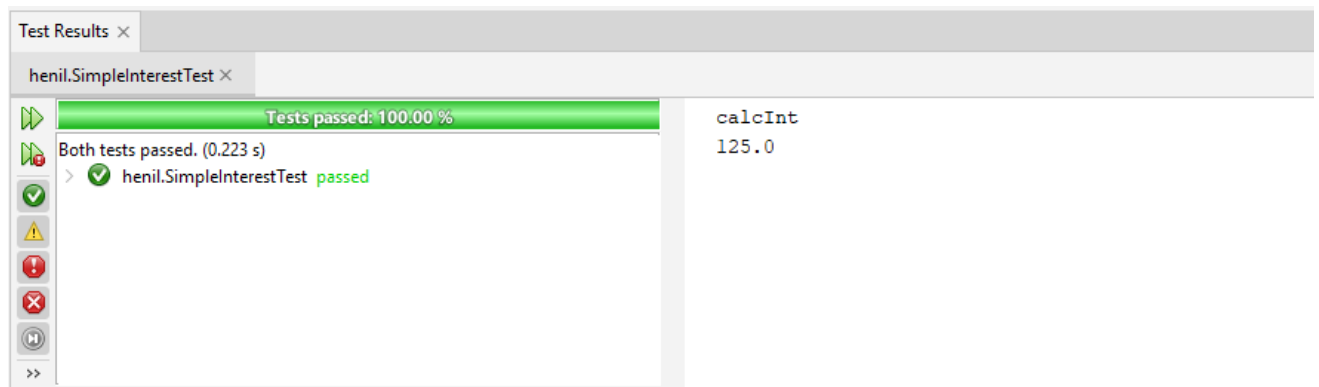
// TODO review the generated test code and remove the default call to fail.

//fail("The test case is a prototype.");

}

}
```

Outout:-



3. Write a program to generate Fibonacci series up to requested number.

Check List:

- Any Element of an Input set is Negative
- Any Element of an Input set is Alphabetic
- Any Element of an Input set is Special Symbol
- Any Element of an Input set is Zero
- There are More than one input

List	Checklist	Input	Expected Output
1.	Element Of an Input is Negative	-5	Error Message: Negative Not Allowed
2.	Element Of an Input is Alphabetic	A	Error Message: Alphabets Not Allowed

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3.	Element Of an Input is Special Symbol	&	Error Message : Special Symbol Not Allowed
4.	Element Of an Input is Zero	0	Error Message : zero Not Allowed
6.	There are More than one input	(15,25,5,10)	Error Message : More than one input Not Allowed

Junit test code:-

```
public class Fibonacci {  
    public static int[] generateFibonacciSeries(int n) {  
        int[] series = new int[n];  
        series[0] = 0;  
        series[1] = 1;  
  
        for (int i = 2; i < n; i++) {  
            series[i] = series[i - 1] + series[i - 2];  
            if (series[i] > n) {  
                break;  
            }  
        }  
  
        return series;  
    }  
}  
  
package Admin;
```

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```
import org.junit.After;  
import org.junit.AfterClass;  
import org.junit.Before;  
import org.junit.BeforeClass;  
import org.junit.Test;  
import static org.junit.Assert.*;
```

```
public class FibonacciTest {
```

```
    public FibonacciTest() {  
    }  
}
```

```
@BeforeClass
```

```
public static void setUpClass() {  
}
```

```
@AfterClass
```

```
public static void tearDownClass() {  
}
```

```
@Before
```

```
public void setUp() {  
}
```

```
@After
```

```
public void tearDown() {
```

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}

@Test

public void testSomeMethod() {

 // TODO review the generated test code and remove the default call to fail.

 //fail("The test case is a prototype.");

}

@Test

public void testGenerateFibonacciSeries() {

 System.out.println("generateFibonacciSeries");

 int n = 5;

 int[] expResult = {0,1,1,2,3};

 int[] result = Fibonacci.generateFibonacciSeries(n);

 assertArrayEquals(expResult, result);

 for (int term : expResult) {

 System.out.print(term + " ");

 }

 // TODO review the generated test code and remove the default call to fail.

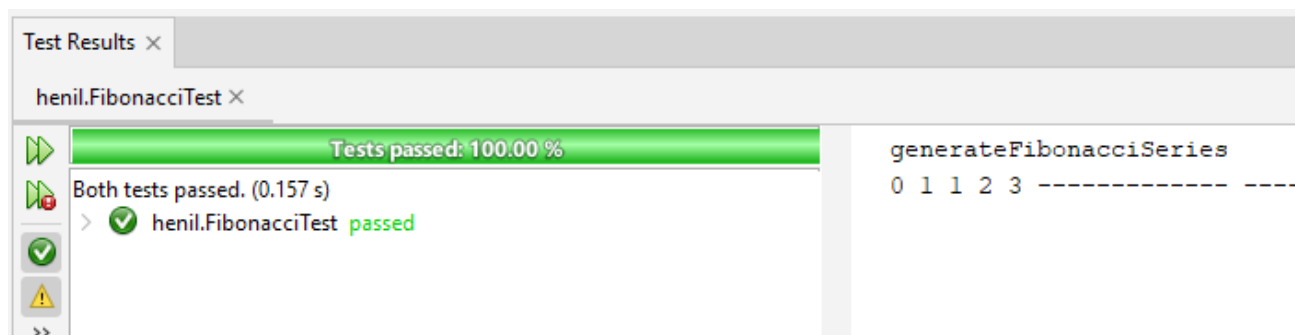
 // fail("The test case is a prototype.");

}

}

Output:-

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4. Write a program to find the factorial of a given number.

Check List:

- Any Element of an Input set is Negative
- Any Element of an Input set is Alphabetic
- Any Element of an Input set is Special Symbol
- Any Element of an Input set is Zero
- There are More than one input

List	Checklist	Input	Expected Output
1.	Element Of an Input is Negative	-5	Error Message: Negative Not Allowed
2.	Element Of an Input is Alphabetic	A	Error Message: Alphabets Not Allowed
3.	Element Of an Input is Special Symbol	&	Error Message : Special Symbol Not Allowed
4.	Element Of an Input is Zero	0	Error Message : zero Not Allowed
6.	There are More than one input	(15,25,5,10)	Error Message : More than one input Not Allowed

Junit test code:-

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```
package Admin;

public class Factorial {

    public static long findFactorial(int n) {

        if (n == 0 || n == 1)

            return 1;

        else

            return n * findFactorial(n - 1);

    }

}
```

```
package Admin;

import org.junit.After;
import org.junit.AfterClass;
import org.junit.Before;
import org.junit.BeforeClass;
import org.junit.Test;
import static org.junit.Assert.*;
```

```
public class FactorialTest {

    public FactorialTest() {

    }

}
```

```
@BeforeClass
```

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```
public static void setUpClass() {  
}
```

```
@AfterClass
```

```
public static void tearDownClass() {  
}
```

```
@Before
```

```
public void setUp() {  
}
```

```
@After
```

```
public void tearDown() {  
}
```

```
/**
```

```
 * Test of findFactorial method, of class Factorial.
```

```
 */
```

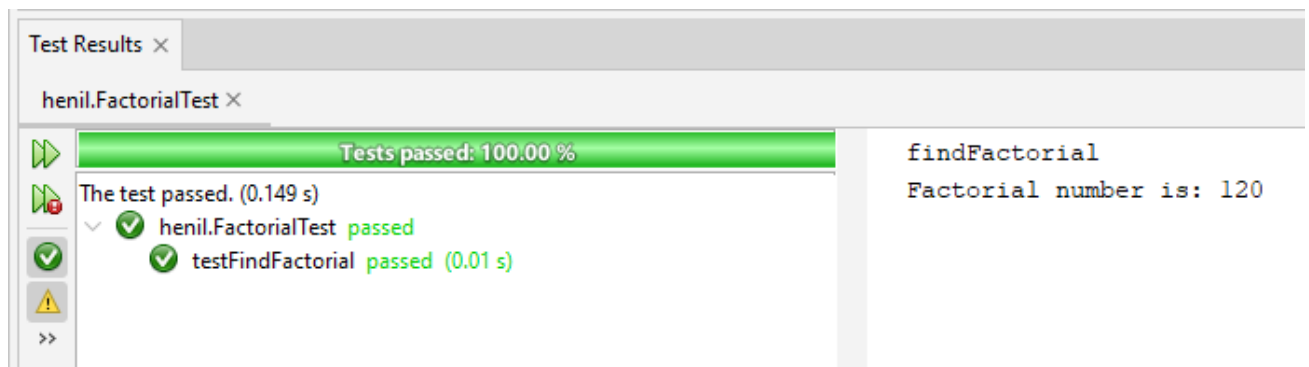
```
@Test
```

```
public void testFindFactorial() {  
    System.out.println("findFactorial");  
    int n = 5;  
    long expResult = 120;  
    long result = Factorial.findFactorial(n);  
    assertEquals(expResult, result);  
    if(expResult==result){  
        System.out.println("Factorial number is: "+expResult);  
    }  
}
```

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```
}else{  
    System.out.println("Expected result is not same");  
}  
  
// TODO review the generated test code and remove the default call to fail.  
  
// fail("The test case is a prototype.");  
}  
  
}
```

Output:-



5. Write a program to search a given number from an array. If number is found, then give the index the number if number is not found return -1.

Check List:

- Any Element of an Input set is Alphabetic
- Any Element of an Input set is Special Symbol
- Any Element of an Input set is Zero
- There are More than two input
- Any Element of an Input set is floating point value.
- First must be array value and second is single value.

List	Checklist	Input	Expected Output
------	-----------	-------	-----------------

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1.	Element Of an Input is Alphabetic	A	Error Message: Alphabets Not Allowed
2.	Element Of an Input is Special Symbol	&	Error Message : Special Symbol Not Allowed
3.	Element Of an Input is Zero	0	Error Message : zero Not Allowed
4.	There are More than two input	(15,25,5,10),(16),(5)	Error Message : More than two input Not Allowed
5.	Any Element of an Input set is floating point value.	(2.5,5,5,6),(5)	Error Message : Floating point value is not allowed
6.	First must be array value and second is single value.	(2,5,4.6,),(5)	Error Message:Not change order of sequence

Junit test code:-

```
package Admin;

public class ArraySearch {

    public static int searchNumber(int[] array, int target) {

        for (int i = 0; i < array.length; i++) {

            if (array[i] == target) {

                return i; // Number found, return the index

            }

        }

        return -1; // Number not found

    }

}
```

```
package Admin;
```


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```
import org.junit.After;  
import org.junit.AfterClass;  
import org.junit.Before;  
import org.junit.BeforeClass;  
import org.junit.Test;  
import static org.junit.Assert.*;
```

```
public class ArraySearchTest {
```

```
    public ArraySearchTest() {  
    }  
}
```

```
@BeforeClass
```

```
public static void setUpClass() {  
}
```

```
@AfterClass
```

```
public static void tearDownClass() {  
}
```

```
@Before
```

```
public void setUp() {  
}
```

```
@After
```

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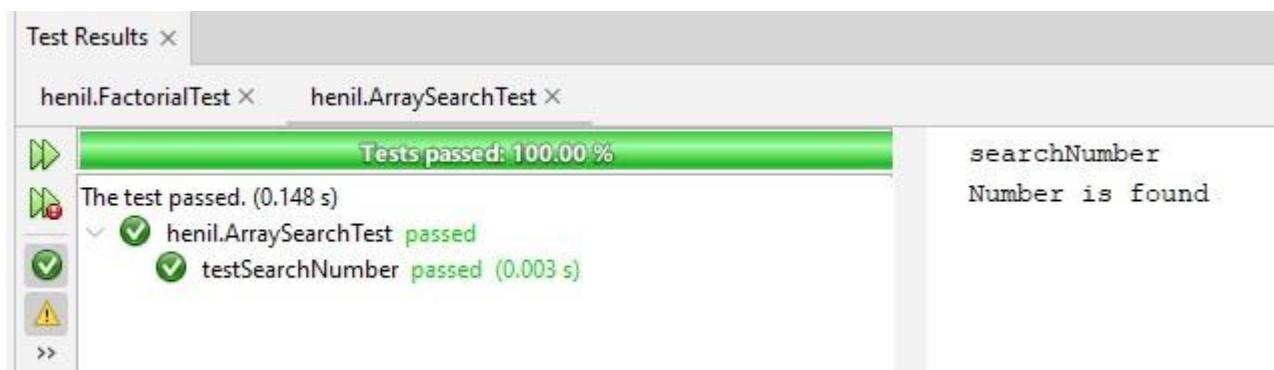
```
public void tearDown() {  
}
```

```
@Test
```

```
public void testSearchNumber() {  
    System.out.println("searchNumber");  
    int[] array = {2, 5, 8, 12, 16, 20, 25, 30};  
    int target = 16;  
    int expectedResult = 4;  
    int result = ArraySearch.searchNumber(array, target);  
    assertEquals(expectedResult, result);  
    if(expectedResult==result){  
        System.out.println("Number is found ");  
    }else{  
        System.out.println("Number is not found");  
    }  
    // TODO review the generated test code and remove the default call to fail.  
    //fail("The test case is a prototype.");  
}  
  
}
```

Output:-

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6. Write a program to find the average values from a given array falling in a given range specified by MIN and MAX.

Check List:

- Any Element of an Input set is Alphabetic
- Any Element of an Input set is Special Symbol
- Any Element of an Input set is Zero
- There are less than three input
- There are More than three input
- Any Element of an Input set is floating point value.
- First must be array value and second is single value.

List	Checklist	Input	Expected Output
1.	Element Of an Input is Alphabetic	A	Error Message: Alphabets Not Allowed
2.	Element Of an Input is Special Symbol	&	Error Message : Special Symbol Not Allowed
3.	Element Of an Input is Zero	0	Error Message : zero Not Allowed
4.	There are More than three input	(15,25,5,10),(16),(5)	Error Message : More than three input Not Allowed
5.	Any Element of an Input set is floating point value.	(2.5,5,5,6),(5)	Error Message : Floating point value is not allowed

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6.	First must be array value and second is single value.	(2,5,4.6,),(5)	Error Message:Not change order of sequence
7.	There are less than three input	(2,5,4,8),(10)	Error Message:Less than three input is not valid

Junit test code:-

```
package Admin;
```

```
public class AverageOfArray {  
    public static double calculateAverageInRange(int[] array, int minRange, int maxRange) {  
        int sum = 0;  
        int count = 0;  
  
        for (int num : array) {  
            if (num >= minRange && num <= maxRange) {  
                sum += num;  
                count++;  
            }  
        }  
  
        if (count > 0) {  
            return (double) sum / count;  
        } else {  
            return -1; // No numbers found in the specified range  
        }  
    }  
}
```

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}

package Admin;

import org.junit.After;

import org.junit.AfterClass;

import org.junit.Before;

import org.junit.BeforeClass;

import org.junit.Test;

import static org.junit.Assert.*;

public class AverageOfArrayTest {

 public AverageOfArrayTest() {
 }

 @BeforeClass

 public static void setUpClass() {
 }

 @AfterClass

 public static void tearDownClass() {
 }

 @Before

 public void setUp() {

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```
}

@After
public void tearDown() {
}

/**
 * Test of calculateAverageInRange method, of class AverageOfArray.
 */
@Test
public void testCalculateAverageInRange() {
    System.out.println("calculateAverageInRange");
    int[] array = {12, 25, 8, 30, 16, 20, 5, 40};
    int minRange = 10;
    int maxRange = 30;
    double expectedResult = 20.6;

    double result = AverageOfArray.calculateAverageInRange(array, minRange,
maxRange);

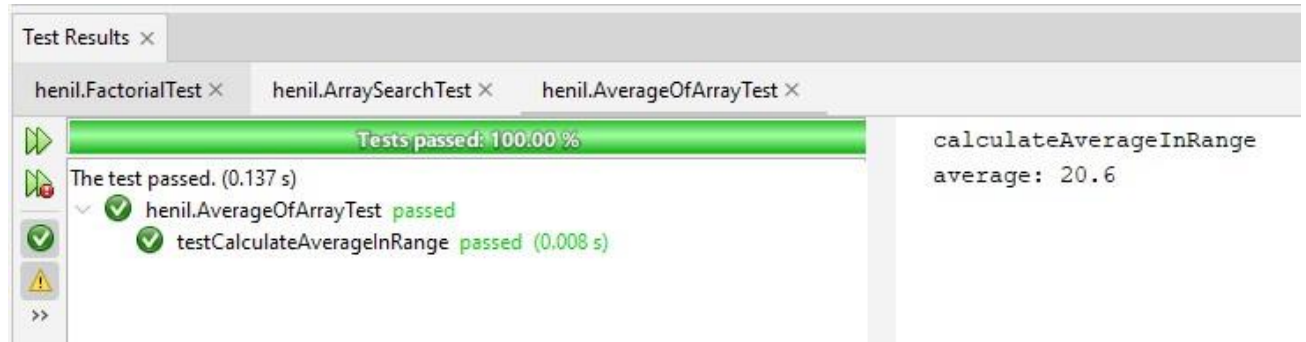
    assertEquals(expectedResult, result, 0);
    if(expectedResult==result){
        System.out.println("average: "+expectedResult);
    }else{
        System.out.println("Average is not found");
    }

    // TODO review the generated test code and remove the default call to fail.
    // fail("The test case is a prototype.");
}
```

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}

Output:-



7. Write a program to find total number of digits, alphabets and special characters from a given string.

Check List:

- There are More than one input

List	Checklist	Input	Expected Output
1.	There are More than one input	("abc12\$"), ("asd23\$")	Error Message: More than one input not allowed

Junit test code:-

```
package Admin;
```

```
public class countcharacter {  
    public static int[] countCharacters(String inputString) {  
        int digitCount = 0;  
        int alphabetCount = 0;
```

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```
int specialCharCount = 0;
```

```
// Iterate through each character in the string
```

```
for (int i = 0; i < inputString.length(); i++) {
```

```
    char ch = inputString.charAt(i);
```

```
    // Check if the character is a digit
```

```
    if (Character.isDigit(ch)) {
```

```
        digitCount++;
```

```
    }
```

```
    // Check if the character is an alphabet
```

```
    else if (Character.isLetter(ch)) {
```

```
        alphabetCount++;
```

```
    }
```

```
    // If it is neither digit nor alphabet, consider it as a special character
```

```
    else {
```

```
        specialCharCount++;
```

```
    }
```

```
}
```

```
int[] ans=new int[]{digitCount,alphabetCount,specialCharCount};
```

```
return ans;
```

```
}
```


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```
}
```

```
package Admin;
```

```
import org.junit.After;
```

```
import org.junit.AfterClass;
```

```
import org.junit.Before;
```

```
import org.junit.BeforeClass;
```

```
import org.junit.Test;
```

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

```
public class countcharacterTest {
```

```
    public countcharacterTest() {
```

```
    }
```

```
    @BeforeClass
```

```
    public static void setUpClass() {
```

```
    }
```

```
    @AfterClass
```

```
    public static void tearDownClass() {
```

```
    }
```

```
    @Before
```

```
    public void setUp() {
```

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```
}
```

```
@After
```

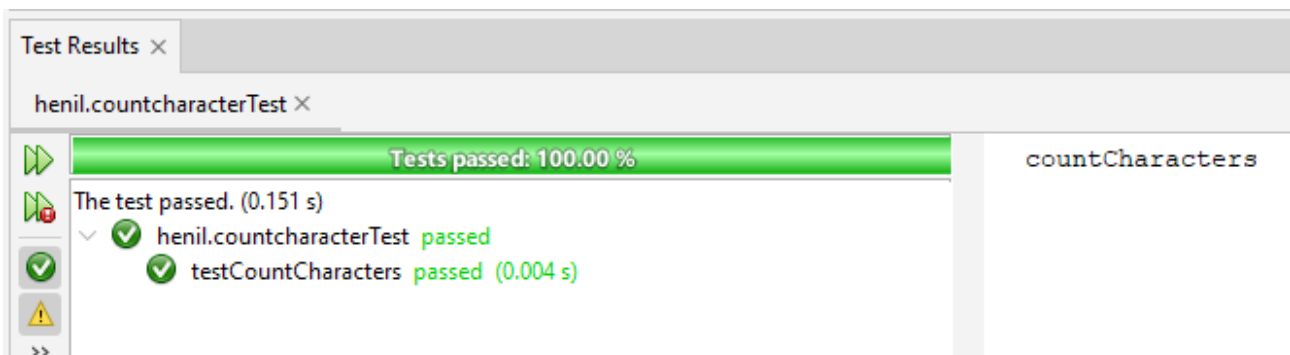
```
public void tearDown() {  
}
```

```
@Test
```

```
public void testCountCharacters() {  
    System.out.println("countCharacters");  
    String inputString = "Admin022Neel";  
    int[] expResult = {3,10,0};  
    int[] result = countcharacter.countCharacters(inputString);  
    assertEquals(expResult, result);  
  
    // TODO review the generated test code and remove the default call to fail.  
    //fail("The test case is a prototype.");  
}
```

```
}
```

output:-



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8. Write a program to accept a string and character ,count occurrence of character if found else return -1.

Check List:

- There are More than two input
- Less than two input
- input is not a specialcharacter
- input is not numeric
- order must be follow

List	CheckList	Input	Expected Output
1	There are More than two input	('hello','h','k')	Error:More than two input not allowed
2	Less than two input	('hello')	Error:Less than two input not allowed
3	Input Is not a specialcharacter	('hello','\$')	Error:Special character not allowed
4	Input is not numeric	('34hello','3')	Error:numeric input not allowed
5	Order must be follow	('h','hello')	Error:unorder input not allowed

Junit test code:-

```
package Admin;
```

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```
public class stringoccur {

    public static int countCharacterOccurrence(String inputString, char searchChar) {

        int count = 0;

        // Iterate through each character in the string
        for (int i = 0; i < inputString.length(); i++) {

            char ch = inputString.charAt(i);

            // Check if the character matches the search character
            if (ch == searchChar) {

                count++;

            }

        }

        // Return the count or -1 if the character is not found
        return count > 0 ? count : -1;

    }

}

package Admin;

import org.junit.After;

import org.junit.AfterClass;

import org.junit.Before;
```

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

```
public class stringoccurTest {
```

```
    public stringoccurTest() {  
    }  
}
```

```
@BeforeClass
```

```
public static void setUpClass() {  
}  
}
```

```
@AfterClass
```

```
public static void tearDownClass() {  
}  
}
```

```
@Before
```

```
public void setUp() {  
}  
}
```

```
@After
```

```
public void tearDown() {  
}
```

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```
}
```

```
@Test
```

```
public void testCountCharacterOccurrence() {
```

```
    System.out.println("countCharacterOccurrence");
```

```
    String inputString = "Jethalal Tendulkar";
```

```
    char searchChar = 'l';
```

```
    int expResult = 2;
```

```
    int result = stringoccur.countCharacterOccurrence(inputString, searchChar);
```

```
    assertEquals(expResult, result);
```

```
    if(expResult==result){
```

```
        System.out.println("count: "+expResult);
```

```
    }else{
```

```
        System.out.println("character if not found");
```

```
    }
```

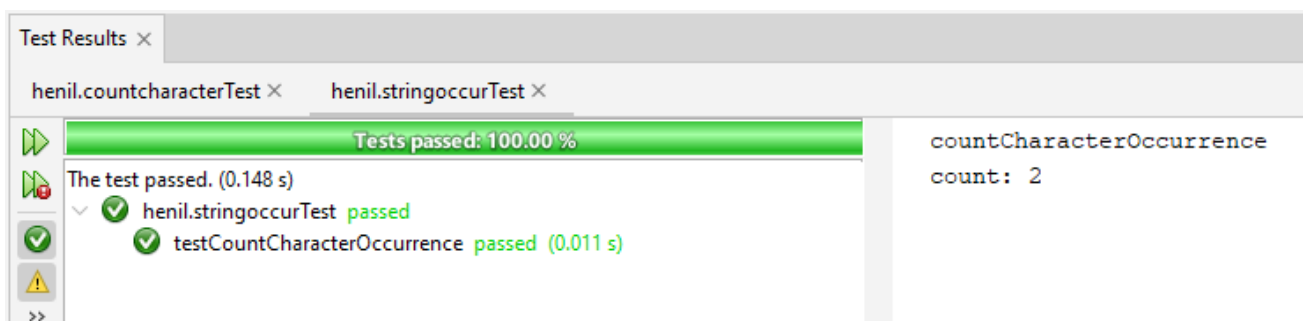
```
// TODO review the generated test code and remove the default call to fail.
```

```
//fail("The test case is a prototype.");
```

```
}
```

```
}
```

output:-



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9. Write a program to return count of elements which are divisible by 4,6,7,8 from an array of 10 elements.

Check List:

- There are More than one input
- input is an array.
- Not allowed Alphabetic value.
- Any element is an Special character.

List	CheckList	Input	Expected Output
1	There are More than one input	[1,2,3,4],[1,5,9]	Error:More than one input not allowed
2	Input is an array	25	Error:must be in array format
3	Not allowed alphabetic value	[hello,c]	Error:alphabetic value not allowed
4	Any element is an Special character	[\$,%,4]	Error:Special character not allowed

Junit test code:-

```
package Admin;
```

```
public class divigblenumber {  
    public static int countDivisibleElements(int[] array) {  
        int count = 0;
```

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```
// Iterate through each element in the array
```

```
for (int element : array) {
```

```
    // Check if the element is divisible by 4, 6, 7, or 8
```

```
    if (element % 4 == 0 || element % 6 == 0 || element % 7 == 0 || element % 8 == 0) {
```

```
        count++;
```

```
    }
```

```
}
```

```
// Return the count of divisible elements
```

```
return count;
```

```
}
```

```
}
```

```
package Admin;
```

```
import org.junit.After;
```

```
import org.junit.AfterClass;
```

```
import org.junit.Before;
```

```
import org.junit.BeforeClass;
```

```
import org.junit.Test;
```

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

```
public class divigblenumberTest {
```

```
    public divigblenumberTest() {
```

```
    }
```


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@BeforeClass

```
public static void setUpClass() {  
}
```

@AfterClass

```
public static void tearDownClass() {  
}
```

@Before

```
public void setUp() {  
}
```

@After

```
public void tearDown() {  
}
```

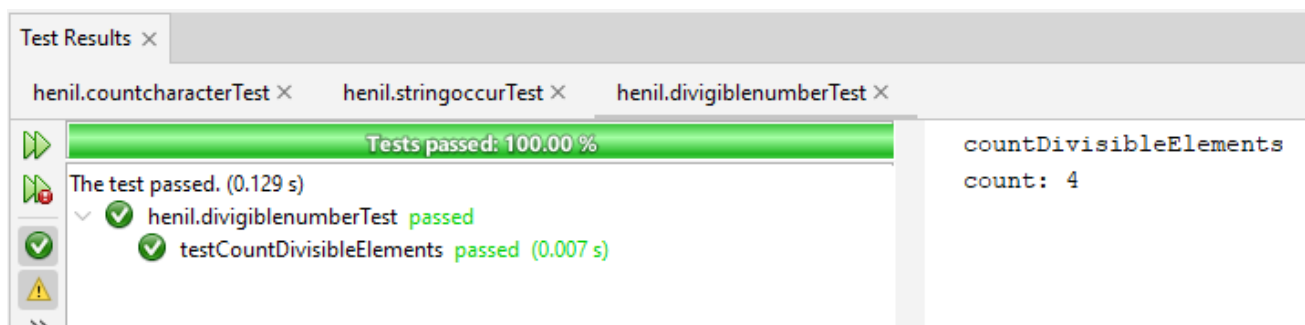
@Test

```
public void testCountDivisibleElements() {  
    System.out.println("countDivisibleElements");  
    int[] array = {5,88,75,65,30,21,7,45,50,10};  
    int expectedResult = 4;  
    int result = divigiblenumber.countDivisibleElements(array);  
    assertEquals(expResult, result);  
    if(expResult==result){  
        System.out.println("count: "+expResult);  
    }  
}
```

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```
}else{  
    System.out.println("number is not divisible by 4,6,7,8");  
}  
  
// TODO review the generated test code and remove the default call to fail.  
  
//fail("The test case is a prototype.");  
  
}  
  
}
```

output:-



10. Write a program that will count total number of occurrences of given character from a string.

Check List:

- There are More than two input
- Less than two input
- input is not a specialcharacter
- input is not numeric
- order must be follow

List	CheckList	Input	Expected Output
------	-----------	-------	-----------------

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1	There are More than two input	('hello','h','k')	Error:More than two input not allowed
2	Less than two input	('hello')	Error:Less than two input not allowed
3	Input Is not a specialcharacter	('hello','\$')	Error:Special character not allowed
4	Input is not numeric	('34hello','3')	Error:numeric input not allowed
5	Order must be follow	('h','hello')	Error:unorder input not allowed

JUnit test code:-

package Admin;

```
public class charactertoString {  
    public static int countCharacterOccurrences(String inputString, char searchChar) {  
        int count = 0;  
  
        // Iterate through each character in the string  
        for (int i = 0; i < inputString.length(); i++) {  
            char ch = inputString.charAt(i);  
  
            // Check if the character matches the search character  
            if (ch == searchChar) {  
                count++;  
            }  
        }  
    }  
}
```

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```
}
```

```
// Return the count of occurrences
```

```
return count;
```

```
}
```

```
}
```

```
package Admin;
```

```
import org.junit.After;
```

```
import org.junit.AfterClass;
```

```
import org.junit.Before;
```

```
import org.junit.BeforeClass;
```

```
import org.junit.Test;
```

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

```
public class caractertostringTest {
```

```
    public caractertostringTest() {
```

```
    }
```

```
    @BeforeClass
```

```
    public static void setUpClass() {
```

```
    }
```

```
    @AfterClass
```

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```
public static void tearDownClass() {  
}
```

@Before

```
public void setUp() {  
}
```

@After

```
public void tearDown() {  
}
```

@Test

```
public void testSomeMethod() {  
    // TODO review the generated test code and remove the default call to fail.  
    //fail("The test case is a prototype.");  
}
```

@Test

```
public void testCountCharacterOccurrences() {  
    System.out.println("countCharacterOccurrences");  
    String inputString = " Jethalal Tendulkar ";  
    char searchChar = 'l';  
    int expectedResult = 2;  
    int result = characterToString.countCharacterOccurrences(inputString, searchChar);  
    assertEquals(expectedResult, result);  
    if(expectedResult==result){
```

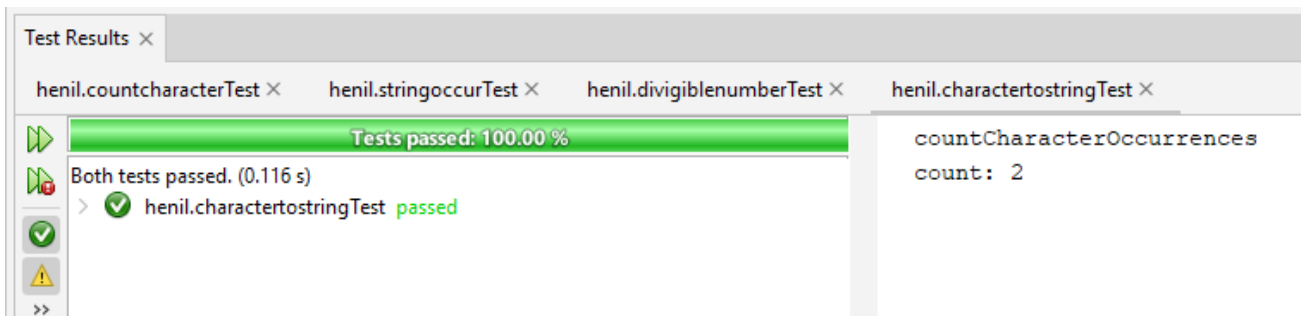
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```
        System.out.println("count: "+expResult);
    }else{
        System.out.println("charcater is not found");
    }

    // TODO review the generated test code and remove the default call to fail.
    // fail("The test case is a prototype.");
}

}
```

output:-



11. Write a program to convert a string into reverse and print the result string.

CheckList:-

- More than one input.
- Input Numeric value
- input special character

List	CheckList	Input	Expected Output
1	There are More than one input	('hello','abc')	Error:More than one input not allowed

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2	Input numeric value	-123	Error:numeric value is not allowed
3	Input specialcharacter	('\$')	Error:Special character not allowed

Junit test code :-

```
package Admin;
```

```
public class reversestring {  
    public static String reverseString(String inputString) {  
        // Convert the string to a character array  
        char[] charArray = inputString.toCharArray();  
  
        // Reverse the character array  
        for (int i = 0, j = charArray.length - 1; i < j; i++, j--) {  
            char temp = charArray[i];  
            charArray[i] = charArray[j];  
            charArray[j] = temp;  
        }  
  
        // Convert the character array back to a string  
        return new String(charArray);  
    }  
}
```

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```
package Admin;

import org.junit.After;
import org.junit.AfterClass;
import org.junit.Before;
import org.junit.BeforeClass;
import org.junit.Test;
import static org.junit.Assert.*;

public class reversestringTest {

    public reversestringTest() {

    }

    @BeforeClass
    public static void setUpClass() {

    }

    @AfterClass
    public static void tearDownClass() {

    }

    @Before
    public void setUp() {

    }

    @After
    public void tearDown() {

    }

    @Test
```


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```
public void testReverseString() {  
    System.out.println("reverseString");  
    String inputString = "Admin";  
    String expResult = "lineH";  
    String result = reversestring.reverseString(inputString);  
    assertEquals(expResult, result);  
    if(expResult.equals(result)){  
        System.out.println("reverse string is: "+expResult);  
    }else{  
        System.out.println("string not found");  
    }  
    // TODO review the generated test code and remove the default call to fail.  
    // fail("The test case is a prototype.");  
}  
}
```

output:-

