LAB # 11

Introduction to Test Suite

OBJECTIVE: Grouping the multiple JUnit test cases and constructing a Test Suite program.

Lab Task:

Make a class having four functions for determining,

- Whether the input integer is odd.
- Whether the input integer is even.
- Whether the input integer is prime.
- For calculating the factorial of that input integer.

Write their test cases and execute them in a single test suite class. Follow all the steps mentioned above in the manual.

JAVACODE:

```
1
2  public class Main {
3
4      public boolean CheckingEven(int num) {
5          if(num%2==0)
6              return true;
7
8              return false;
9
10         }
11     public boolean CheckingOdd(int num) {
12         if(num %2 !=0)
13             return true;
14
15             return false;
16
17 }
18
19 public boolean CheckingPrime(int num) {
20     boolean isPrime =true;
21     if(num==1)
22     {
23         isPrime=false;
24         return false;
25
26     }
```


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Individual Class For Checking Junit Testing:

Even Class:

```
1 import static org.junit.jupiter.api.Assertions.*;
4
5 class Even {
6
7     @Test
8     void test() {
9     Main Even=new Main();
10    boolean  check=Even.CheckingEven(4);
11     assertEquals(4,check);
12    }
13
14 }
```

Odd Class:

```
1 import static org.junit.jupiter.api.Assertions.*;
4
5 class Odd {
6
7     @Test
8     void test() {
9         Main Odd=new Main();
10        boolean  check=Odd.CheckingOdd(3);
11         assertEquals(3,check);
12        }
13    }
14
```


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Prime Class:

```
1⊕import static org.junit.jupiter.api.Assertions.*;
4
5 class Prime {
6
7⊖    @Test
8     void test() {
9         Main prime=new Main();
10        boolean  check=prime.CheckingPrime(3);
11         assertEquals(3,check);
12        }
13
14    }
```

Factorial Class :

```
1⊕import static org.junit.jupiter.api.Assertions.*;
4
5 class Factorial {
6
7⊖    @Test
8     void test() {
9         Main fact=new Main();
0         int  check=fact.Factorial(3);
1          assertEquals(6,check);
2         }
3
4     }
```


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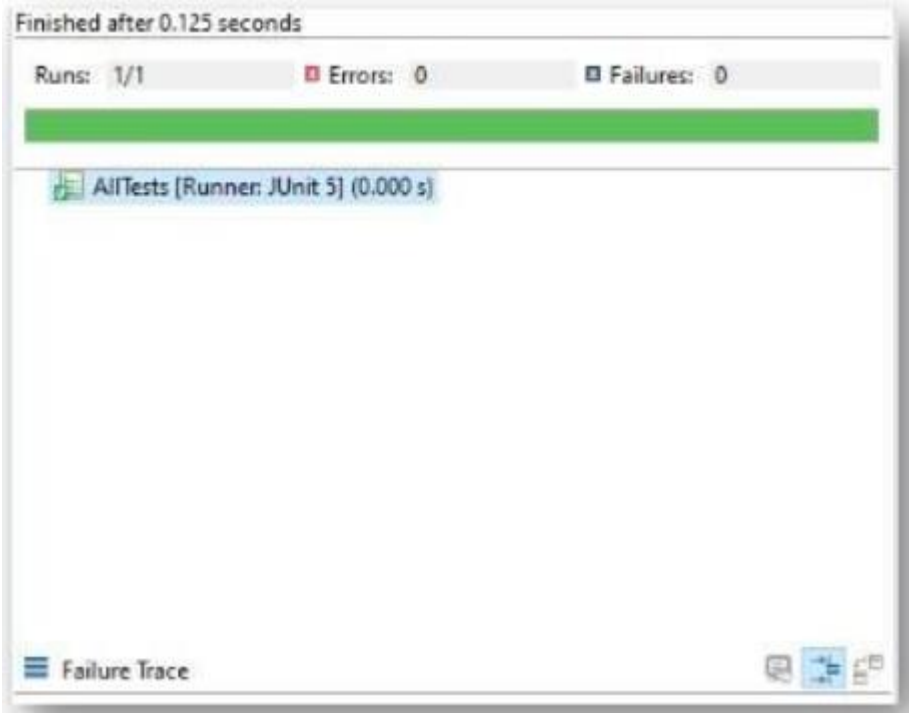
Output:



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