assertTrue() method

This lesson demonstrates how to use assertTrue method in JUnit 5 to assert test conditions.

WE'LL COVER THE FOLLOWING

assertTrue() method

Assertions API provide static `assertTrue()` method. This method helps us in validating that the actual value supplied to it is `true`.

- If the actual value is `true` then test case will pass.
- If the actual value is `not true` then test case will fail.

There are basically six useful overloaded methods for assertTrue:-

```
public static void assertTrue(boolean condition)

public static void assertTrue(boolean condition, String message)

public static void assertTrue(boolean condition, Supplier<String> messageSupplier)

public static void assertTrue(BooleanSupplier booleanSupplier)

public static void assertTrue(BooleanSupplier booleanSupplier, String message)

public static void assertTrue(BooleanSupplier booleanSupplier, Supplier<String> messageSuppli
```

مشاركة
المشاهدة لاحقًا
JUnit 5 Assertions - assertTrue method
Java Unit Testing with JUnit 5
JUnit 5 Assertions – assertTrue() method
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https://www.hubberspot.com

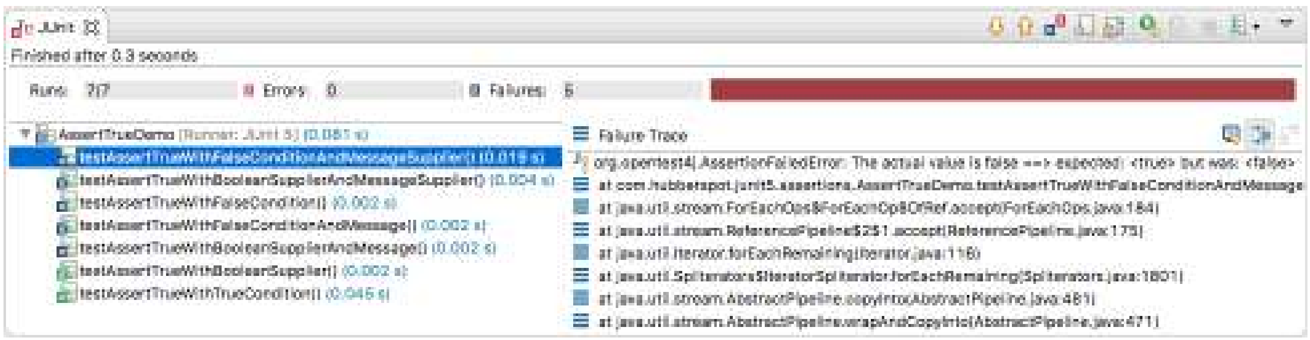
Demo

Let's look into the usage of the above methods:-

```
package io.educative.junit5;

import static org.junit.jupiter.api.Assertions.assertTrue;

import org.junit.jupiter.api.Test;

public class AssertTrueDemo {

        @Test
        public void testAssertTrueWithTrueCondition() {
                boolean trueValue = true;
                assertTrue(trueValue);
        }

        @Test
        public void testAssertTrueWithFalseCondition() {
                boolean falseValue = false;
                assertTrue(falseValue);
        }

        @Test
        public void testAssertTrueWithFalseConditionAndMessage() {
                boolean falseValue = false;
                assertTrue(falseValue, "The actual value is false");
        }
        @Test
        public void testAssertTrueWithFalseConditionAndMessageSupplier() {
                boolean falseValue = false;
                assertTrue(falseValue, () -> "The actual value is false");
        }

        @Test
        public void testAssertTrueWithBooleanSupplier() {
                boolean trueValue = true;
                assertTrue(() -> trueValue);
        }

        @Test
        public void testAssertTrueWithBooleanSupplierAndMessage() {
                boolean falseValue = false;
                assertTrue(() -> falseValue, "The actual value is false");
        }

        @Test
        public void testAssertTrueWithBooleanSupplierAndMessageSupplier() {
                boolean falseValue = false;
                assertTrue(() -> falseValue, () -> "The actual value is false");
        }
}
```

> You can perform code changes to above code widget, run and practice different outcomes.

Run AssertTrueDemo class as JUnit Test.



```
JUnit
Finished after 0.3 seconds
Runs: 7/7    Errors: 0    Failures: 6

AssertTrueDemo [Runner: JUnit 5] (0.081 s)
    testAssertTrueWithFalseConditionAndMessageSupplier() (0.019 s)
    testAssertTrueWithBooleanSupplierAndMessageSupplier() (0.004 s)
    testAssertTrueWithFalseCondition() (0.002 s)
    testAssertTrueWithFalseConditionAndMessage() (0.002 s)
    testAssertTrueWithBooleanSupplierAndMessage() (0.002 s)
    testAssertTrueWithBooleanSupplier() (0.002 s)
    testAssertTrueWithTrueCondition() (0.046 s)

Failure Trace
org.opentest4j.AssertionFailedError: The actual value is false ==> expected: <true> but was: <false>
  at com.hubberspot.junit5.assertions.AssertTrueDemo.testAssertTrueWithFalseConditionAndMessage
  at java.util.stream.ForEachOps$ForEachOp$OfRef.accept(ForEachOps.java:184)
  at java.util.stream.ReferencePipeline$2$1.accept(ReferencePipeline.java:175)
  at java.util.Iterator.forEachRemaining(Iterator.java:116)
  at java.util.Spliterators$IteratorSpliterator.forEachRemaining(Spliterators.java:1801)
  at java.util.stream.AbstractPipeline.copyInto(AbstractPipeline.java:481)
  at java.util.stream.AbstractPipeline.wrapAndCopyInto(AbstractPipeline.java:471)
```

Explanation -

In AssertTrueDemo class there are 7 @Test methods. These 7 methods demonstrate the working of the above 6 overloaded methods of `assertTrue` :-

1. `testAssertTrueWithTrueCondition()` - It asserts the boolean value provided to `assertTrue()` method. Here, the actual value passed to it is

`true`. Thus, it passes the Junit test case because `assertTrue` asserts that value passed to it should be true.

2. `testAssertTrueWithFalseCondition()` - It asserts the boolean value provided to `assertTrue()` method. Here, actual value passed to it is `false`. Thus, it fails the Junit test case with `AssertionFailedError:` expected: <true> but was: <false> because value passed to `assertTrue` method is `false.`

3. `testAssertTrueWithFalseConditionAndMessage` - It asserts the boolean value provided to `assertTrue()` method. Here, actual value passed to it is `false`. Thus, it fails the Junit test case with `AssertionFailedError:` The actual value is false ==> expected: <true> but was: <false> because value passed to `assertTrue` method is `false.` It gives `AssertionFailedError` followed `String message` we provide to assertTrue() method.

4. `testAssertTrueWithFalseConditionAndMessageSupplier` - It asserts the boolean value provided to `assertTrue()` method. Here, actual value passed to it is `false`. Thus, it fails the Junit test case with `AssertionFailedError:` The actual value is false ==> expected: <true> but was: <false> because value passed to `assertTrue` method is `false.` It gives `AssertionFailedError` followed by lazily evaluates `String message` we provide to assertTrue() method, as lambda expression.

5. `testAssertTrueWithBooleanSupplier()` - It asserts the boolean value provided to `assertTrue()` method through BooleanSupplier functional interface. Here, actual value passed to it is `true`. Thus, it passes the JUnit test case because `assertTrue` asserts that value passed to it should be true.

6. `testAssertTrueWithBooleanSupplierAndMessage` - It asserts the boolean value provided to `assertTrue()` method through BooleanSupplier functional interface. Here, actual value passed to it is `false`. Thus, it fails the Junit test case with `AssertionFailedError:` The actual value is false ==> expected: <true> but was: <false> because value passed to `assertTrue` method is `false.` It gives `AssertionFailedError` followed `String message` we provide to assertTrue() method.

7. `testAssertTrueWithBooleanSupplierAndMessageSupplier` - It asserts the boolean value provided to `assertTrue()` method through BooleanSupplier functional interface. Here, actual value passed to it is `false`. Thus, it fails the Junit test case with `AssertionFailedError:` The actual value is false ==> expected: <true> but was: <false> because value passed to `assertTrue` method is `false.` It gives `AssertionFailedError` followed by lazily evaluates `String message` we provide to assertTrue() method, as lambda expression.

In the next lesson, we will look into `assertFalse()` assertion.