

# assertFalse method

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

## WE'LL COVER THE FOLLOWING ^

- `assertFalse()` method
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## `assertFalse()` method #

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

- If the actual value is `false` then test case will pass.
- If the actual value is `true` then test case will fail.

There are basically six useful overloaded methods for `assertFalse` -

```
public static void assertFalse(boolean condition)
public static void assertFalse(boolean condition, String message)
public static void assertFalse(boolean condition, Supplier<String> messageSupplier)
public static void assertFalse(BooleanSupplier booleanSupplier)
public static void assertFalse(BooleanSupplier booleanSupplier, String message)
public static void assertFalse(BooleanSupplier booleanSupplier, Supplier<String> messageSupplier)
```





مشاركة



المشاهدة لاحقًا



# Java Unit Testing with JUnit 5

JUnit 5 Assertions – assertFalse() method



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assertFalse() method

## Demo #

Let's look into the usage of the above methods.

```
package io.educative.junit5;

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

import org.junit.jupiter.api.Test;

public class AssertFalseDemo {

    @Test
    public void testAssertFalseWithFalseCondition() {
        boolean falseValue = false;
        assertFalse(falseValue);
    }

    @Test
    public void testAssertFalseWithTrueCondition() {
        boolean trueValue = true;
        assertFalse(trueValue);
    }

    @Test
    public void testAssertFalseWithTrueConditionAndMessage() {
        boolean trueValue = true;
        assertFalse(trueValue, "The actual value is true");
    }
}
```



```

    }

    @Test
    public void testAssertFalseWithTrueConditionAndMessageSupplier() {
        boolean trueValue = true;
        assertFalse(trueValue, () -> "The actual value is true");
    }

    @Test
    public void testAssertFalseWithBooleanSupplier() {
        boolean falseValue = false;
        assertFalse(() -> falseValue);
    }

    @Test
    public void testAssertFalseWithBooleanSupplierAndMessage() {
        boolean trueValue = true;
        assertFalse(() -> trueValue, "The actual value is true");
    }

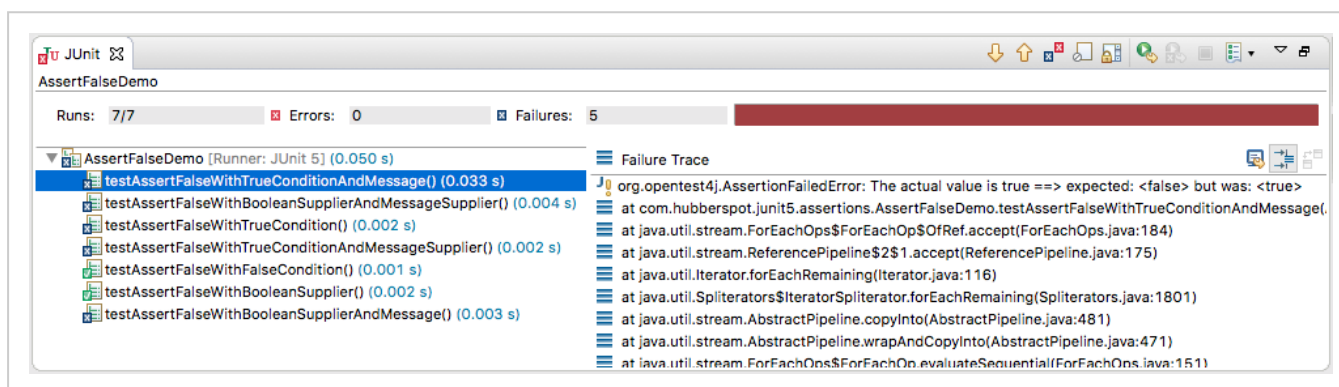
    @Test
    public void testAssertFalseWithBooleanSupplierAndMessageSupplier() {
        boolean trueValue = true;
        assertFalse(() -> trueValue, () -> "The actual value is true");
    }
}

```



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

Run AssertFalseDemo class as JUnit Test.



## Explanation - #

In `AssertFalseDemo` class, there are 7 `@Test` methods. These 7 methods demonstrate the working of the above 6 overloaded methods of `assertFalse`.

1. `testAssertFalseWithFalseCondition()` - It asserts the boolean value

1. `testAssertFalseWithFalseCondition()` - It asserts the boolean value provided to `assertFalse()` method. Here, the actual value passed to it is `false`. Thus, it passes the JUnit test case because `assertFalse` asserts that value passed to it should be false.
2. `testAssertFalseWithTrueCondition()` - It asserts the boolean value provided to `assertFalse()` method. Here, actual value passed to it is `true`. Thus, it fails the JUnit test case with `AssertionFailedError`: expected: <false> but was: <true> because value passed to `assertFalse` method is `true`.
3. `testAssertFalseWithTrueConditionAndMessage` - It asserts the boolean value provided to `assertFalse()` method. Here, actual value passed to it is `true`. Thus, it fails the JUnit test case with `AssertionFailedError`: The actual value is true ==> expected: <false> but was: <true> because value passed to `assertFalse` method is `true`. It gives `AssertionFailedError` followed `String message` we provide to `assertFalse()` method.
4. `testAssertFalseWithTrueConditionAndMessageSupplier` - It asserts the boolean value provided to `assertFalse()` method. Here, actual value passed to it is `true`. Thus, it fails the JUnit test case with `AssertionFailedError`: The actual value is true ==> expected: <false> but was: <true>\*\* because value passed to `assertFalse` method is `true`. It gives `AssertionFailedError` followed by lazily evaluated `String message` we provide to `assertFalse()` method, as lambda expression.
5. `testAssertFalseWithBooleanSupplier()` - It asserts the boolean value provided to `assertFalse()` method through `BooleanSupplier` functional interface. Here, actual value passed to it is `false`. Thus, it passes the JUnit test case because `assertFalse` asserts that value passed to it should be false.
6. `testAssertFalseWithBooleanSupplierAndMessage` - It asserts the boolean value provided to `assertFalse()` method through `BooleanSupplier` functional interface. Here, actual value passed to it is `true`. Thus, it fails the JUnit test case with `AssertionFailedError`: The actual value is true ==> expected: <false> but was: <true> because value passed to `assertFalse` method is `true`. It gives `AssertionFailedError` followed `String message` we provide to `assertFalse()` method.

7. `testAssertFalseWithBooleanSupplierAndMessageSupplier` - It asserts the boolean value provided to `assertFalse()` method through `BooleanSupplier` functional interface. Here, actual value passed to it is `true`. Thus, it fails the Junit test case with `AssertionFailedError`: The actual value is true ==> expected: <false> but was: <true> because value passed to `assertFalse` method is `true`. It gives `AssertionFailedError` followed by lazily evaluated `String message` we provide to `assertFalse()` method, as lambda expression.
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In the next lesson, we will look into `assertSame()` and `assertNotSame()` assertions.