

# What is the Assertion in JUnit 5?

This lesson describes Assertions in JUnit 5.

## WE'LL COVER THE FOLLOWING ^

- Assertions in JUnit 5
- Assert methods in Assertions API

## Assertions in JUnit 5 #

JUnit 5 assertions help us in validating the expected output with the actual output of a test case. In short, assertions are nothing but static methods that we call in our tests to verify expected behavior. All JUnit Jupiter assertions are present in the `org.junit.jupiter.Assertions` class.

These methods support Java 8 lambda expressions and are extensively overloaded to support different types such as primitives, objects, streams, arrays etc.



## Java Unit Testing with JUnit 5

JUnit 5 Assertions



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## Assert methods in Assertions API #

Assert Method	What It Does
<code>assertNull()</code>	Asserts that <b>actual</b> is null.
<code>assertNotNull()</code>	Asserts that <b>actual</b> is <b>not</b> null.
<code>fail()</code>	Simply fails the test
<code>assertSame()</code>	Assert that <b>expected</b> and <b>actual</b> refer to the <b>same</b> object.
<code>assertNotSame()</code>	Assert that <b>expected</b> and <b>actual</b> <b>do not</b> refer to the <b>same</b> object.
<code>assertTrue()</code>	asserts that <b>actual</b> is <b>true</b> .
<code>assertFalse()</code>	asserts that <b>actual</b> is <b>false</b> .
<code>assertEquals()</code>	Assert that <b>expected</b> and <b>actual</b> are <b>equal</b> .
<code>assertNotEquals()</code>	Assert that <b>expected</b> and <b>actual</b> are <b>not equal</b> .
<code>assertArrayEquals()</code>	Assert that <b>expected</b> and <b>actual</b> arrays are <b>equal</b> .
<code>assertIterableEquals()</code>	Asserts that expected and actual iterables are <b>deeply</b> equal
<code>assertThrows()</code>	Assert if an <b>executable</b> throws the

<code>assertThrows()</code>	specified <b>exception</b> type.
<code>assertAll()</code>	Assert multiple assertions in <b>groups</b> .
<code>assertTimeout()</code>	Assert that the execution of a supplied <b>Executable</b> ends before a given <b>timeout</b>
<code>assertTimeoutPreemptively()</code>	Assert that the execution of the <b>Executable</b> will be <b>preemptively aborted</b> if the <b>timeout</b> is exceeded.

In our previous lessons we have used few assertions such as, `fail()`, `assertTrue()`, `assertFalse()` and `assertEquals()` etc. In our upcoming lesson, we will discuss each and every Assertion in more detail.