TestNG

TestNG Groups

TestNG Groups allow you to perform groupings of different test methods. Grouping of test methods is required when you want to access the test methods of different classes.

**TestNG**

is an automation testing framework in which NG stands for “Next Generation”. TestNG is inspired by [JUnit](https://www.guru99.com/junit-tutorial.html)which uses the annotations (@). TestNG overcomes the disadvantages of JUnit and is designed to make [end-to-end testing](https://www.guru99.com/end-to-end-testing.html) easy.

Using TestNG, you can generate a proper report, and you can easily come to know how many test cases are passed, failed, and skipped. You can execute the failed test cases separately.

Advantage

* Annotations are easier to use and understand.
* Test cases can be grouped more easily.
* TestNG allows us to create [parallel tests](https://www.guru99.com/parallel-testing.html).
* TestNG is capable of generating HTML-based reports.
* Annotations can use parameters just like the usual Java TestNG methods.
* TestNG Dataprovider is a way to pass parameters into the test function which passes different values in test cases in a single execution.

**Q #5) What is the sequence of execution of the annotations in TestNG?**

**Answer: The Sequence of execution of the annotations is as follows:**

@BeforeSuite

@BeforeTest

@BeforeClass

@BeforeMethod

@Test

@AfterMethod

@AfterClass

@Aftertest

@AfterSuite

**Q #6) What are the advantages of TestNG?**

**Answer: The advantages of TestNG are as follows:**

* It is an open-source framework, hence it is easy to configure.
* Using TestNG we can systematically create the test cases.
* It gives lots of annotations which in turn makes the test case creation easy.
* Using TestNG, priorities of the tests and the sequence of execution can be defined.
* Grouping is possible using TestNG.
* It generates HTML reports (Selenium Webdriver cannot generate the test reports alone, it helps SW to achieve this).
* Data parameterization is possible using TestNG.
* In addition to all the functionalities of JUnit, TestNG has its functionalities, which in turn makes it more powerful.

**Q #15) How to disable a test in TestNG?**

**Answer:**

**To disable a test in TestNG, we have to use the “enabled” attribute as follows:**

@Test(enabled=”false”)

**Q #16) What are the types of Asserts in TestNG?**

**Answer:**To validate the results (pass/fail), we have to use the assertion.

**There are two types of assert in TestNG:**

**(i) Hard Assert:**

Hard Assert is the normal assert which is used to do validations in the TestNG class.

**We have to use Assert class for hard assert as follows:**

Assert.assertEquals(actual value, expected value);

If the hard assert fails, then none of the code gets executed after the assert statement.

**(ii) Soft Assert:**

If we want to continue the test execution even after the assert statement fails, then we have to use soft assert.

To create a soft assert, **we have to create an object of a “softAssert” class as follows:**

softAssert sassert = new softAssert();  
sassert.assertAll();

So now if the test case fails, the execution is not terminated when we use soft assert.

**Q #13) How to handle exceptions in TestNG?**

**Answer:**If there are some methods from which we expect some exceptions, then we can mention the exception in @Test annotation so that the test case does not fail.

**Example:** If a method is expected to have “numberFormatException” exception, then the test case will fail because of this exception if no try-catch block is specified.

But we can do it in TestNG by using “expectedException” attribute as follows.

@Test(expectedException=numberFormatException.class)

Then the test case will run without failing.

**Q #12) What is timeOut in TestNG?**

**Answer:**If any method in the script takes a long time to execute, then we can terminate that method using “timeout” in TestNG.

@Test(timeout = 5000)

In this case, the method will get terminated in 5000 ms (5 seconds) and the test case is marked as “Failed”.