| **Features** | **JUnit** | **TestNG** |
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| Open Source | JUnit is Open Source Unit Testing Framework | TestNG is Open source Testing framework |
| Set up | Setting up JUnit is easy | Setting up TestNG is also easy |
| User friendly | JUnit doesn’t support everything out of the box. For example, parameterization needs JUnit Jupitor integration | TestNG supports all required features out of the box |
| Listener’s Implementation through annotations. | Junit doesn’t support listeners implementations through annotations, it supports via Listeners API | TestNG supports listeners implementations through annotations |
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| Reporting | No in-built HTML reporting. The report can be generated through Maven | TestNG has its own in-built HTML reports. However, it can also be integrated with Maven to generate extensive reports |
| Parallel Test Execution | JUnit doesn’t directly support parallel execution | TestNG supports parallel execution |
| Dependency Test | JUnit doesn’t support the Dependency test | TestNG supports dependency tests |
| Data-Driven Testing | Though JUnit supports Data driven testing, more effort and technical expertise are required to setup | TestNG provides special annotations for data-driven testing |
| Test Grouping | Supports Grouping Tests | Supports Grouping test cases |
| Tests Priority/Order of Execution | Order of execution can be achieved in JUnit | TestNG supports setting up test cases priority which helps to maintain the order |

| **Description** | **TestNG** | **JUnit 4** |
| --- | --- | --- |
| Test annotation | @Test | @Test |
| Executes before the first test method is invoked in the current class | @BeforeClass | @BeforeClass |
| Executes after all the test methods in the current class | @AfterClass | @AfterClass |
| Executes before each test method | @BeforeMethod | @Before |
| Executes after each test method | @AfterMethod | @After |
| annotation to ignore a test | @Test(enable=false) | @ignore |
| annotation for exception | @Test(expectedExceptions = ArithmeticException.class) | @Test(expected = ArithmeticException.class) |
| timeout | @Test(timeout = 1000) | @Test(timeout = 1000) |
| Executes before all tests in the suite | @BeforeSuite | n/a |
| Executes after all tests in the suite | @AfterSuite | n/a |
| Executes before a test runs | @BeforeTest | n/a |
| Executes after a test runs | @AfterTest | n/a |
| Executes before the first test method is invoked that belongs to any of these groups is invoked | @BeforeGroups | n/a |
| run after the last test method that belongs to any of the groups here | @AfterGroups | n/a |