**Questions Related To TestNG**

1. **What are adavantages of TestNG?**

**Ans:-**

* Easy way of implementing test scripts using TestNG annotations
* Priortizing the execution of testcases
* Able to group testcases and execute them separately
* Parallel execution of testcases
* Supports runtime parameters which we can pass through TestNG.xml file
* Listeners
* @DataProvider annotation to execute same testcase with different testdata
* HTML reports

1. **What is the use of priority attribute?**

**Ans:-** It is used to prioritize the execution of testcases. The test having the priority equals to lowest number will be executed first. If the priority is same for two or more testcases then they will be executed in alphabetical order. The default priority is 0 and it allows negative values also.

1. **Explain the annotations of TestNG in the execution order?**

**Ans:-**

@BeforeSuite

@BeforeTest

@BeforeClass

@BeforeMethod

@Test

@AfterMethod

@AfterClass

@AfterTest

@AfterSuite

1. **Whate is the use of @DataProvider annotation?**

**Ans:-**

This annotation is used to execute same testcase with different testdata. Every dataprovider will return two-dimensional object array and dataprovider is called in the testcase using attribute called “dataprovider”

Sample:-

@DataProvider (name = "usernames")

public Object[][] getUsernames() {

return new Object [][] { {“user1”},{“user2”},{“user3}}}

1. **How to group testcases in the TestNG?**

**Ans:-**

We can group testcases by using the attribute “groups”. Sample is given below,

*@Test(groups=”Sanity”)*

*Public void ValidateLoginFunctionality()*

*{*

*}*

1. **What is invocationCount or How to execute same testcase multiple times?**

**Ans:-**

Invocation count attribute is used for executing the same testcase multiple times.

*@Test(invocationCount=9)*

*Public void ValidateLoginFunctionality()*

*{*

*}*

In the above scenario the testcase will be executed 9 times

1. **What is dependency in TestNG?**

**Ans:-**

In the TestNG if you want to add dependency like if you want to validate dashboard scenarios only if the login functionality is passed, We can achieve it by using keyword “dependsOnMethods”. Sample is below,

*@Test*

*Public void ValidateLoginFunctionality()*

*{*

*}*

*@Test(dependsOnMethods=”ValidateLoginFunctionality”)*

*Public void ValidateTabsDisplayedInDashboard()*

*{*

*}*

1. **What are the different types of assertions in TestNG and what is the difference with example?**

**Ans:-** There are 2 types of assertions in TestNG namely Hard Assertion and Soft Assertion.

*Hard-Assertion:-* When this assertion is used and if the condtion is failed the code will stop executing the testcase there only and mark the testcase as failed.

Ex:-

* Assert.fail(failureMessage)
* Assert.assertEquals(actual,expected)
* Assert.assertTrue(IsElementDisplayed)

*Soft-Assertion:-* When this assertion is used and if the condition is failed the code will not stop executing the testcase until assertAll() method is called. When assertAll() method is called it will mark the testcase as failed

Ex:-

SoftAssert assert = new SoftAssert();

assert.assertTrue();

assert.fail();

assert.assertAll(); to fail the testcases if any of the condition is failed

1. **How to disable a Test in TestNG?**

**Ans:-** We have to make the value of attribute “enabled” as false.

Sample:-

*@Test(enabled=false)*

*Public void ValidateLoginFunctionality()*

*{*

*}*

1. **How to retrieve the parameters passed from the TestNg.xml file in class?**

**Ans:-**

@Parameters({"environment","browser"})

@BeforeSuite

public void beforeSuite(String environment, String browser)

{

}

1. **How to add parameters in TestNG.xml file?**

**Ans:-**

<Suite name = “RegressionSuite”>

<parameter name =”environment” value=”QA”/>

<parameter name =”browser” value =”chrome”/>

<test name =”ValidateLogin”>

<Classes>

<class name =”com.openCart.login”/>

<classes/>

<test/>

<Suite/>

1. **How to achieve parallel execution in TestNG and what are the levels?**

**Ans:-**

The parallel test execution means executing different test methods simultaneously. It can be achieved in four different levels,

* ***Methods***: *This will run the parallel tests on all @Test methods in TestNG*.
* ***Tests***: *All the test cases present inside the <test> tag will run with this value*.
* ***Classes***: *All the test cases present inside the classes that exist in the XML will run in parallel*.
* ***Instances***: *This value will run all the test cases parallelly inside the same instance*.

It can be achieved by passing parallel=”{level}” in the TestNG.xml file.

<suite name="Regression Suite" parallel="classes">

<listeners>

<listener class-name="com.opencart.listeners.ReportGenerator"></listener>

<listener class-name="com.opencart.listeners.AnnotationTransformer"></listener>

</listeners>

<test name="Application sanity">

<parameter name="browser" value="chrome"></parameter>

<classes>

<class name="com.opencart.application.Application\_Sanity"/>

</classes>

</suite>

1. **What is thread count in TestNG.xml file?**

**Ans:-** It is used to define how many threads can be used to execute parallel tests at a time.

It can be achieved by passing thread-count={count} in the TestNG.xml file.

<suite name="Regression Suite" parallel="classes" thread-count=10>

<listeners>

<listener class-name="com.opencart.listeners.ReportGenerator"></listener>

<listener class-name="com.opencart.listeners.AnnotationTransformer"></listener>

</listeners>

<test name="Application sanity">

<parameter name="browser" value="chrome"></parameter>

<classes>

<class name="com.opencart.application.Application\_Sanity"/>

</classes>

</suite>

1. **How to pass listeners in TestNG.xml file?**

**Ans:-**

It can be achieved by passing parallel=”{level}” in the TestNG.xml file.

<suite name="Regression Suite" parallel="classes">

<listeners>

<listener class-name="com.opencart.listeners.ReportGenerator"></listener>

<listener class-name="com.opencart.listeners.AnnotationTransformer"></listener>

</listeners>

<test name="Application sanity">

<parameter name="browser" value="chrome"></parameter>

<classes>

<class name="com.opencart.application.Application\_Sanity"/>

</classes>

</suite>