**Listeners:**

What is a listener?

A listener is an interface which listens to all the events like test start, test failure, test complete etc. You can use this listener to do some extra actions like taking screenshots when a test is failed. There are many types of listeners in TestNG and we will be looking at iTestListener. First we will see what this listener is and how to use it and then we will look at how to take screenshots when a test is failed.

**package** TestNGExamples;

**import** org.testng.ITestContext;

**import** org.testng.ITestListener;

**import** org.testng.ITestResult;

**public** **class** Listeners **implements** ITestListener{

@Override

**public** **void** onTestStart(ITestResult result) {

// **TODO** Auto-generated method stub

System.***out***.println("Test Started");

}

@Override

**public** **void** onTestSuccess(ITestResult result) {

// **TODO** Auto-generated method stub

System.***out***.println("Test Successful");

}

@Override

**public** **void** onTestFailure(ITestResult result) {

// **TODO** Auto-generated method stub

System.***out***.println("Test Failed");

}

@Override

**public** **void** onTestSkipped(ITestResult result) {

// **TODO** Auto-generated method stub

System.***out***.println("Test Skipped");

}

@Override

**public** **void** onTestFailedButWithinSuccessPercentage(ITestResult result) {

// **TODO** Auto-generated method stub

System.***out***.println("Test failed but within Success percentage");

}

@Override

**public** **void** onStart(ITestContext context) {

// **TODO** Auto-generated method stub

System.***out***.println("Class Started");

}

@Override

**public** **void** onFinish(ITestContext context) {

// **TODO** Auto-generated method stub

System.***out***.println("Class Finished");

}

}

The methods that we can implement are

onTestStart – This will be executed on each test (method) starts

onTestSuccess – This will be executed on each test (method) is successful

onTestFailure – This will be executed when a test(method) fails

onTestSkipped – This will be executed when a test is skipped

onTestFailedButWithinSuccessPercentage

onStart – This will be executed when the test suite starts

onFinish – This will be executed when the test suite finishes execution

When we implement the above listener class we need to mention this in TestNG xml. We do it using listerners tag.

<?xml version=*"1.0"* encoding=*"UTF-8"*?>

<!DOCTYPE suite SYSTEM "http://testng.org/testng-1.0.dtd">

<suite name=*"Suite"*>

<listeners>

<listener class-name=*"TestNGExamples.Listeners"*/>

</listeners>

<test thread-count=*"5"* name=*"Test"*>

<classes>

<class name=*"TestNGExamples.TextBoxNew"*/>

<class name=*"TestNGExamples1.RadioButtons"*/>

</classes>

</test> <!-- Test -->

</suite> <!-- Suite -->