

TestNG Listeners

- TestNG listeners can be used to customize logs or TestNG reports
- Similar to WebDriver Listeners explained in the previous session where WebDriver Listeners listen to WebDriver events, TestNG listeners also listen to the TestNG events and behave accordingly.
- Types of TestNG Listeners:
 - There are several interfaces which can be used as part of TestNG Listeners
 - View the interfaces list [here](#)
 - Out of all the interfaces listed above, we will be using **ITestListener** interface for implementing TestNG Listeners
- Create a new class say 'MyEventHandler' which implements **ITestListener**
 - Provide the dependency tags for TestNG from [here](#)
 - Select to add all unimplemented methods
 - Implement onTestStart(), onTestSuccess(), onTestFailure() and onTestSkipped() methods only- Demonstrate [here](#)
 - Remaining methods are not really used in real time
- Create a new class say 'Demo' and add the Selenium code to trigger the methods in the above class
 - Create a test method say 'testOmayoTitle()' with the Selenium code - Demonstrate [here](#)
 - Execute the program to check whether the TestNG listeners mentioned in MyEventHandler are getting invoked.
 - Observe that they are not invoked
 - Add the following annotation on the top of the class
 - @Listeners(qafox.TestNGListeners.MyEventHandler.class)
 - Execute the program to check whether the TestNG listeners mentioned in MyEventHandler are getting invoked.
 - Observe that they are invoked now
 - Create another test method say 'testOmayoA()' with an intention to fail - Demonstrate [here](#)
 - Execute the program to check whether the TestNG listeners mentioned in MyEventHandler are getting invoked.
 - Create another test method say 'testOmayoB()' with an intention to skip - Demonstrate [here](#)
 - Execute the program to check whether the TestNG listeners mentioned in MyEventHandler are getting invoked.
- Create multiple classes having multiple test methods
 - Create a new classes say 'Demo1' and 'Demo2' having 'test1()' and 'test2()' sample methods respectively - View Demo1 [here](#) and Demo2 [here](#)
 - Remove the @Listeners(qafox.TestNGListeners.MyEventHandler.class) from Demo class
 - Right click on the Demo class and select to 'TestNG' > 'Convert to TestNG'
 - In the testng.xml file, add the listeners tags inside the <suite> tag - Demonstrate here
 - Copy the listeners tags form here: <http://testng.org/doc/documentation-main.html#testng-listeners>
 - Add the remaining classes under the <test> tag - Demonstrate [here](#)
 - Execute the testng.xml file and observet that the listeners got invoked for all the methods inside the classes mentioned in testng.xml file
- Implement taking screenshots when any Testng Test fails
 - Create a new base class say 'TestBase' with a method say setUp() annotated with @BeforeTest annotation - Demonstrate [here](#)
 - Remove the steps implemented in TestBase from Demo class
 - Make sure that the driver is provided with public and static
 - Execute the testng.xml file to check whether our changes are working.
 - Open MyEventManager class and paste the code provided for taking screenshot on failure - View code [here](#)
 - Extend the TestBase class to get the driver object
 - Comment out the Assert.fail() in testOmayoA method
 - Intentionally fail the test inside the Demo class having Selenium code by adding driver.findElements(By.id("132323")) - View [here](#)
 - Execute the testng.xml file to check whether our changes are working.