**TestNG Framework:**

1. Dowload and add a TestNG plug-in to Eclipse IDE. To check weather the TestNG is installed or not in eclipse go to Windows 🡪Preferences and type TestNG.
2. You need to have a @Test annotations followed by method and you can define multiple tests from single class
3. To create a TestNG xml, Right click the project and choose TestNG🡪convert to TestNG option.
4. You modularize the test cases based up on functionality and trigger them accordingly. Eg: create multiple <test> <test/> folders
5. You can also get a control on running specific methods from test cases.

**Eg:**

<class>

<methods>

<exclude name= “method-name”/>

<include name=”method-name”/>

<methods/>

<class/>

**Example with Regx:**

<class>

<methods>

<exclude name= “mobile.\*”/>

<include name=”mobile.\*”/>

<methods/>

<class/>

**Example for package level execution:**

<test>

<packages>

<package name=”package-name”/>

<packages/>

<test/>

1. **Types of Annotations:**

Below annotation types are related to TestNG xml file

@Beforesuite

@Aftersuite

@BeforeTest

@AfterTest

Below annotations types are related to specific class file.

@BeforeClass - Execute before any methods class in the class.

@AfterClass – Execute after all methods class in the class.

@BeforeMethod - Execute before every methods in the class

@AfterMethod - Execute after every methods in the class

1. **Groups in TestNG**

Syntax for adding group tag to the test.

@Test(groups={“Smoke”})

Add the groups to TestNG xml file

<test>

<groups>

<run>

<include name=”Smoke”> -- > name is case sensitive.

</run>

</groups>

<classes>

<class name=”test.login”>

<classes>

</test>

1. **Deponds on Method attriubute**

Syntax:

@Test (dependsOnMethods={“Method-name”})

@Test (dependsOnMethods={“Method-name1”,”Method-name2”})

1. **Enabled attribute**

To off the test cases use below methods

@Test (enable=false)

1. **TimeOut attribute.**

Assign a wait time for a particular method to execute.

Syntax:

@Test(timeout=400)

1. **Parameter in TestNG.**

**TestNG xml file:**

<test>

<parameter name=”Url” value=”testing.com”>

<parameter name=”Url” value=”testing.com”>

<classes>

<class name=”com.test”>

</classes>

<test/>

**Class file:**

@Parameter({“Url”, “Username”})

@Test

public void demo1 (String AppUrl, String Uname)

{

}

1. **Data provider annotations:**

@DataProvider

Public object[][] getData()

{

}

@Test(dataProvider=”Method-name”)

public void login(String Uname, String Pass)

{

}

1. **iTestListener interface – TestNG Listeners**

Create new class file for Listeners

public class Listeners implements iTestListener

{

}

Write listener file path to TestNG Xml file

**TestNG Xml file:**

<suite>

<listeners>

<listener class name=”class file-name”/>

</listeners>

</suite>

--To get a failure method name use below class,

public void onTestFailure(iTestResult result)

{

System.out.println(“Test Failed”+result.getName());

}

**14.Parallel Test in TestNG**

Tests level parallel execution:

<suite name =”Test suite” parallel=”tests” thread-count=”2”>

Class level parallel execution:

<test name=”Demo Test” parallel=”classes” thread-count=”2”>

**15. TestNG Report**

* Refresh the Project after running the test and open the test-output folder.
* Open ‘index.html’ file in browser.