Sample Test

```java
package testNG;

import org.testng.annotations.Test;

public class SampleTest {

  @Test
  public void first() {
        System.out.println("i am first test.....");
  }

  @Test
  public void second() {
        System.out.println("i am second test.....");
  }

  @Test
  public void third() {
        System.out.println("i am third test.....");
  }

  @Test
  public void fourth() {
        System.out.println("i am fourth test.....");
  }
}
```

Priority

```
package testNG;
import org.testng.annotations.Test;

public class Priority {

	@Test(priority = 0)
	public void mujeeb() {
		System.out.println("Start the mujeeb.....");
	}

	@Test(priority = 0)
	public void thasmeer() {
		System.out.println("Start the thasmeer.....");
	}

	@Test(priority = 4)
	public void arham() {
		System.out.println("Start the arham.....");
	}

	@Test(priority = 2)
	public void safa() {
		System.out.println("Start the safa.....");
	}

	@Test(priority = 5)
	public void naja() {
		System.out.println("Start the naja.....");
	}

	@Test(priority = 1)
	public void aasir() {
		System.out.println("Start the aasir.....");
	}

	@Test(priority = 3)
	public void nihath() {
		System.out.println("Start the nihath.....");
	}



}
```

Skip Test Case

```java
package testNG;
import org.testng.annotations.Test;

public class SkipTestCase {

	@Test(priority = 0)
	public void mujeeb() {
		System.out.println("Start the mujeeb.....");
	}


	@Test(priority = 0, enabled = false)
	public void thasmeer() {
		System.out.println("Start the thasmeer.....");
	}

	@Test(priority = 4)
	public void arham() {
		System.out.println("Start the arham.....");
	}

	@Test(priority = 2)
	public void safa() {
		System.out.println("Start the safa.....");
	}

	@Test(priority = 5, enabled = false)
	public void naja() {
		System.out.println("Start the naja.....");
	}

	@Test(priority = 1)
	public void aasir() {
		System.out.println("Start the aasir.....");
	}

	@Test(priority = 3)
	public void nihath() {
		System.out.println("Start the nihath.....");
	}

}
```

Dependency Management

```java
package testNG;

import org.testng.annotations.Test;

public class DependencyManagement {

	@Test(dependsOnMethods = "degree")
	public void pgd() {
		System.out.println("i am pgd");
	}

	@Test(dependsOnMethods = "hnd")
	public void degree() {
		System.out.println("i am Degree");
	}

	@Test(enabled = false, dependsOnMethods = "diploma")
	public void hnd() {
		System.out.println("i am hnd");
	}

	@Test(dependsOnMethods = "certificate")
	public void diploma() {
		System.out.println("i am diploma");
	}

	@Test(enabled = true)
	public void certificate() {
		System.out.println("i am certificate");
	}
}
```

Suite Example

```
package testNG;

import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;
import org.testng.annotations.AfterSuite;
import org.testng.annotations.BeforeSuite;
import org.testng.annotations.Test;

public class SuiteExample {

	WebDriver driver;
	long startTime;
	long endTime;
	long totalTime;

	@BeforeSuite
	public void open() {

		startTime = System.currentTimeMillis();
		System.setProperty("webdriver.chrome.driver",
				"D:\\Selenium
Drivers\\chromedriver_win32\\chromedriver.exe");
		driver = new ChromeDriver();
	}

	@Test(priority = 0)
	public void google() {

		driver.get("https://www.google.com");
	}

	@Test(priority = 1)
	public void youtube() {
		driver.get("https://www.youtube.com");
	}

	@Test(priority = 2)
	public void facebook() {
		driver.get("https://www.facebook.com");
	}

	@AfterSuite
	public void close() {
```

```
            driver.quit();

            endTime = System.currentTimeMillis();
            totalTime = endTime - startTime;
            System.out.println("Total time taken is: " + totalTime);
      }


}
```

XML File

```xml
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE suite SYSTEM "https://testng.org/testng-1.0.dtd" >

<suite name="Test Suite" verbose="2">
<test name="Test Cases">
<classes>

<class name="testNG.SampleTest"></class>
<class name="testNG.Priority"></class>
<class name="testNG.SkipTestCase"></class>
<class name="testNG.DependencyManagement"></class>

</classes>
</test>
</suite>
```

Grouping

```java
package testNG;
import org.testng.annotations.Test;

public class Grouping {

	// we will run only samsung and redmi mobile groups in xml file

	@Test(groups = {"Nokia"})
	public void nokia() {
		System.out.println("Nokia mobile.......");
	}
	@Test(groups = {"Nokia"})
	public void nokia2() {
		System.out.println("Nokia mobile.......");
	}

	@Test(groups = {"Samsung"})
	public void samsung() {
		System.out.println("Samsung mobile.......");
	}
	@Test(groups = {"Samsung"})
	public void samsung2() {
		System.out.println("Samsung mobile.......");
	}

	@Test(groups = {"Apple"})
	public void apple() {
		System.out.println("Apple mobile.......");
	}
	@Test(groups = {"Apple"})
	public void apple2() {
		System.out.println("Apple mobile.......");
	}

	@Test(groups = {"Redmi"})
	public void redmi() {
		System.out.println("Redmi mobile.......");
	}
	@Test(groups = {"Redmi"})
	public void redmi2() {
		System.out.println("Redmi mobile.......");
	}

}
```

XML File - Grouping

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE suite SYSTEM "https://testng.org/testng-1.0.dtd" >

<suite name="Group Test" verbose="2">
<test name="Group Test Cases">
<groups>
      <run>
      <include name="Samsung"></include>
      <include name="Redmi"></include>
      <!-- <exclude></exclude> it we use our needed requirments-->
      </run>

</groups>

<classes>

<class name="testNG.Grouping"></class>

</classes>
</test>
</suite>
```

Parameterization

```java
package testNG;

import org.testng.annotations.Parameters;
import org.testng.annotations.Test;

public class Parameterization {

	@Test
	@Parameters("Name")
	public void printName(String name) {
		System.out.println("The name is: " + name);
	}

	@Test
	@Parameters({"Name2","Name3"})
	public void printName2(String name, String name2) {
		System.out.println("The name is: " + name);
		System.out.println("The name is: " + name2);
	}

}
```

XML File - Parameterization

```xml
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE suite SYSTEM "https://testng.org/testng-1.0.dtd" >

<suite name="Parameterization Test">
<test name="Parameterization Test Cases">

<parameter name="Name" value="Mujeeb"></parameter>
<parameter name="Name2" value="Aasir"></parameter>
<parameter name="Name3" value="Safa"></parameter>

<classes>

<class name="testNG.Parameterization"></class>

</classes>
</test>
</suite>
```

Parallel Testing

```
package testNG;

import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;
import org.testng.annotations.Test;

public class ParellelTesting {

	@Test
	public void openGoogle() {

		System.setProperty("webdriver.chrome.driver",
				"D:\\Selenium
Drivers\\chromedriver_win32\\chromedriver.exe");
		WebDriver driver = new ChromeDriver();
		driver.get("https://www.google.com/");
		driver.quit();
	}

	@Test
	public void openYoutube() {

		System.setProperty("webdriver.chrome.driver",
				"D:\\Selenium
Drivers\\chromedriver_win32\\chromedriver.exe");
		WebDriver driver = new ChromeDriver();
		driver.get("https://www.youtube.com/");
		driver.quit();
	}

}
```

XML File - Parallel Testing

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE suite SYSTEM "https://testng.org/testng-1.0.dtd" >

<suite name="ParellelTesting Test" verbose="2" parallel="methods"
thread-count="2">
<test name="ParellelTesting Test Cases">
<classes>
<class name="testNG.ParellelTesting"></class>
</classes>
</test>
</suite>
```

Assertion

```
package testNG;

import org.testng.Assert;
import org.testng.annotations.Test;

public class Assertion {

	String name = "Mujeeb";
	boolean val = true;

	@Test
	public void equalName() {
		/*
		if(name.equals("Mujeeb")) {
			System.out.println("Name is equal");
		}
		else {
			System.out.println("Name is not equal");
		}
		*/

		Assert.assertEquals(name, "Mujeeb");
		//Assert.assertNotEquals(name, "mujeeb");
		//Assert.assertFalse(val, "This is true");
		//Assert.assertTrue(val, "This is true");

	}

}
```

Annotation Hierarchy

```
package testNG;

import org.testng.annotations.Test;
import org.testng.annotations.BeforeMethod;
import org.testng.annotations.AfterMethod;
import org.testng.annotations.BeforeClass;
import org.testng.annotations.AfterClass;
import org.testng.annotations.BeforeTest;
import org.testng.annotations.AfterTest;
import org.testng.annotations.BeforeSuite;
import org.testng.annotations.AfterSuite;

public class AnnotationHierachi {

 @Test
 public void test() {
        System.out.println("I am test");
 }
 @Test
 public void test2() {
        System.out.println("I am test2");
 }
 @Test
 public void test3() {
        System.out.println("I am test3");
 }
 @BeforeMethod
 public void beforeMethod() {
        System.out.println("I am before method");
 }

 @AfterMethod
 public void afterMethod() {
        System.out.println("I am after method");
 }

 @BeforeClass
 public void beforeClass() {
        System.out.println("I am before class");
 }

 @AfterClass
```

```
  public void afterClass() {
        System.out.println("I am after class");
  }

  @BeforeTest
  public void beforeTest() {
        System.out.println("I am before test");
  }

  @AfterTest
  public void afterTest() {
        System.out.println("I am after test");
  }

  @BeforeSuite
  public void beforeSuite() {
        System.out.println("I am before suite");
  }

  @AfterSuite
  public void afterSuite() {
        System.out.println("I am after suite");
  }

}
```

Listener

```
package testNG;

import org.testng.ITestContext;
import org.testng.ITestListener;
import org.testng.ITestResult;

public class Listener implements ITestListener{

	@Override
	public void onTestStart(ITestResult result) {
		// TODO Auto-generated method stub
		ITestListener.super.onTestStart(result);
		System.out.println("onTestStart");
	}

	@Override
	public void onTestSuccess(ITestResult result) {
		// TODO Auto-generated method stub
		ITestListener.super.onTestSuccess(result);
		System.out.println("onTestSuccess");
	}

	@Override
	public void onTestFailure(ITestResult result) {
		// TODO Auto-generated method stub
		ITestListener.super.onTestFailure(result);
		System.out.println("onTestFailure");
	}

	@Override
	public void onTestSkipped(ITestResult result) {
		// TODO Auto-generated method stub
		ITestListener.super.onTestSkipped(result);
		System.out.println("onTestSkipped");
	}

	@Override
	public void onTestFailedButWithinSuccessPercentage(ITestResult
result) {
		// TODO Auto-generated method stub

	ITestListener.super.onTestFailedButWithinSuccessPercentage(result
);
```

```
	System.out.println("onTestFailedButWithinSuccessPercentage");
	}

	@Override
	public void onTestFailedWithTimeout(ITestResult result) {
		// TODO Auto-generated method stub
		ITestListener.super.onTestFailedWithTimeout(result);
		System.out.println("onTestFailedWithTimeout");
	}

	@Override
	public void onStart(ITestContext context) {
		// TODO Auto-generated method stub
		ITestListener.super.onStart(context);
		System.out.println("onStart");
	}

	@Override
	public void onFinish(ITestContext context) {
		// TODO Auto-generated method stub
		ITestListener.super.onFinish(context);
		System.out.println("onFinish");
	}


}
```

Listener Sample Test

```
package testNG;

import org.testng.annotations.Test;

public class ListenerSampleTest {

	@Test
	public void first() {
		System.out.println("i am first test......");
	}

}
```

XML File - Listener

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE suite SYSTEM "https://testng.org/testng-1.0.dtd" >

<suite name="Listener Test" verbose="2" parallel="methods" thread-
count="2">
<listeners>

<listener class-name="testNG.Listener"></listener>
</listeners>
<test name="Listener Test Cases">

<classes>

<class name="testNG.ListenerSampleTest"></class>

</classes>
</test>
</suite>
```