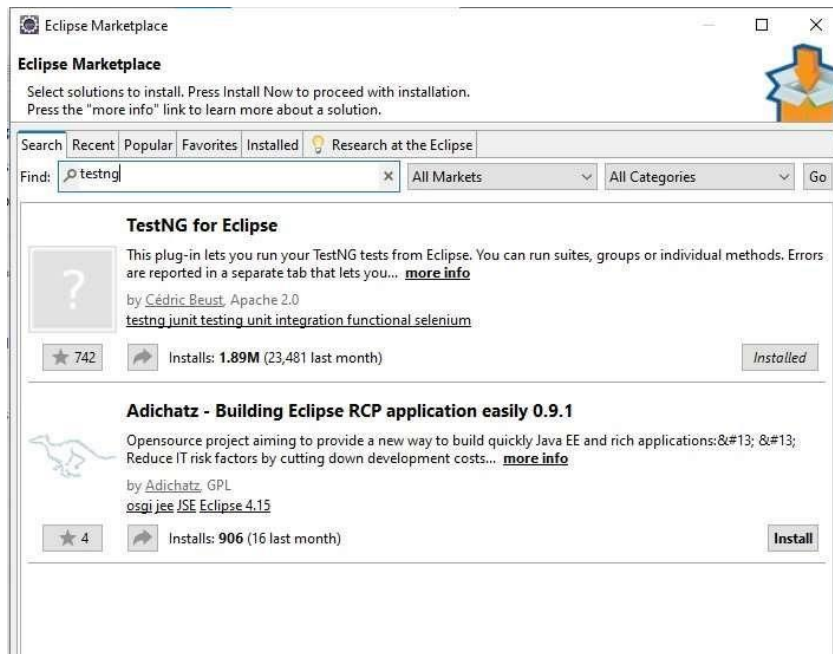


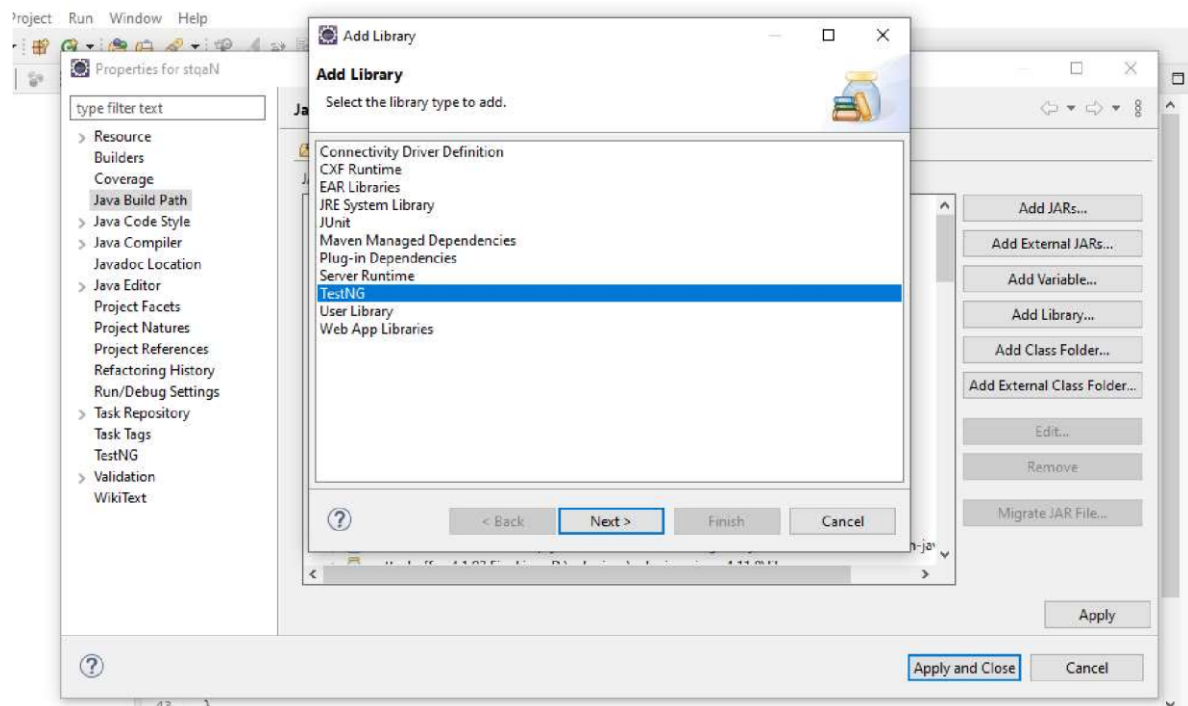
3 TestNg & Data Driven Framework

Aim:- Installation of TestNg , running testNg and TestNg annotations

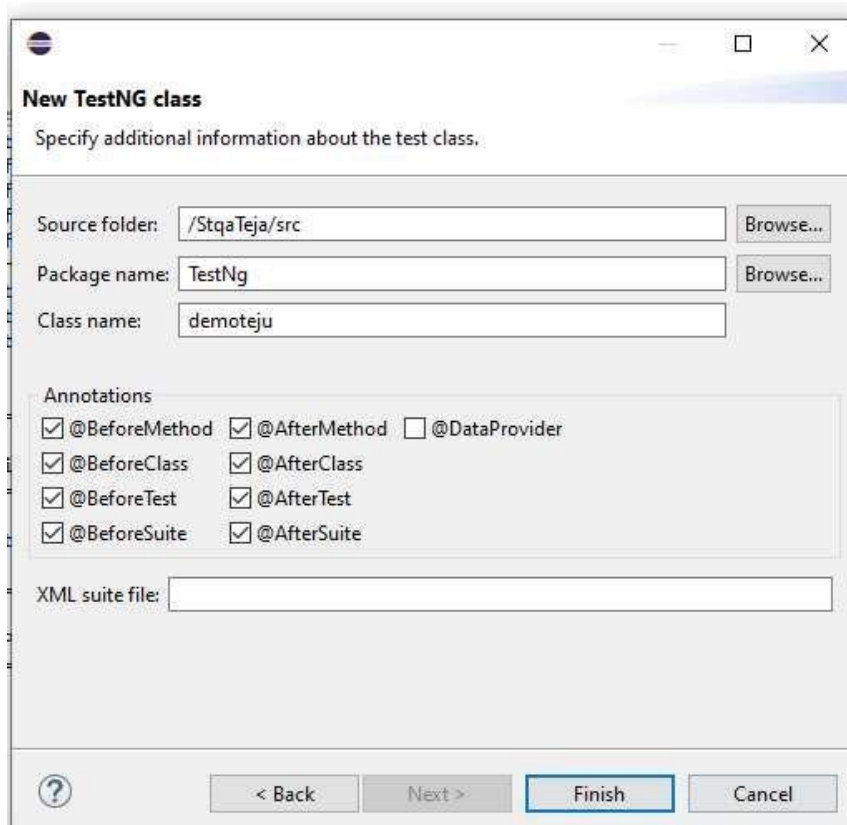
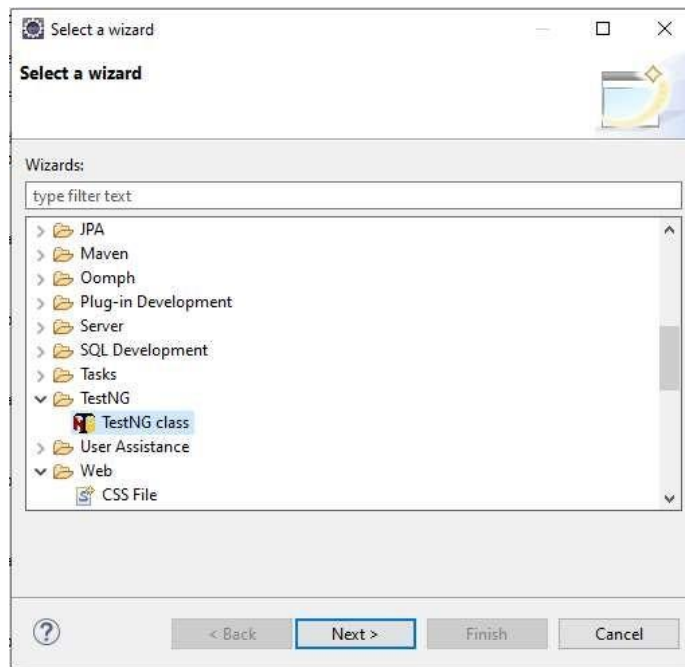
Step1: Install TestNg from eclipse marketplace



Step 2: Add TestNg library in project



Step 3: Create TestNg class in src with new package TestNg

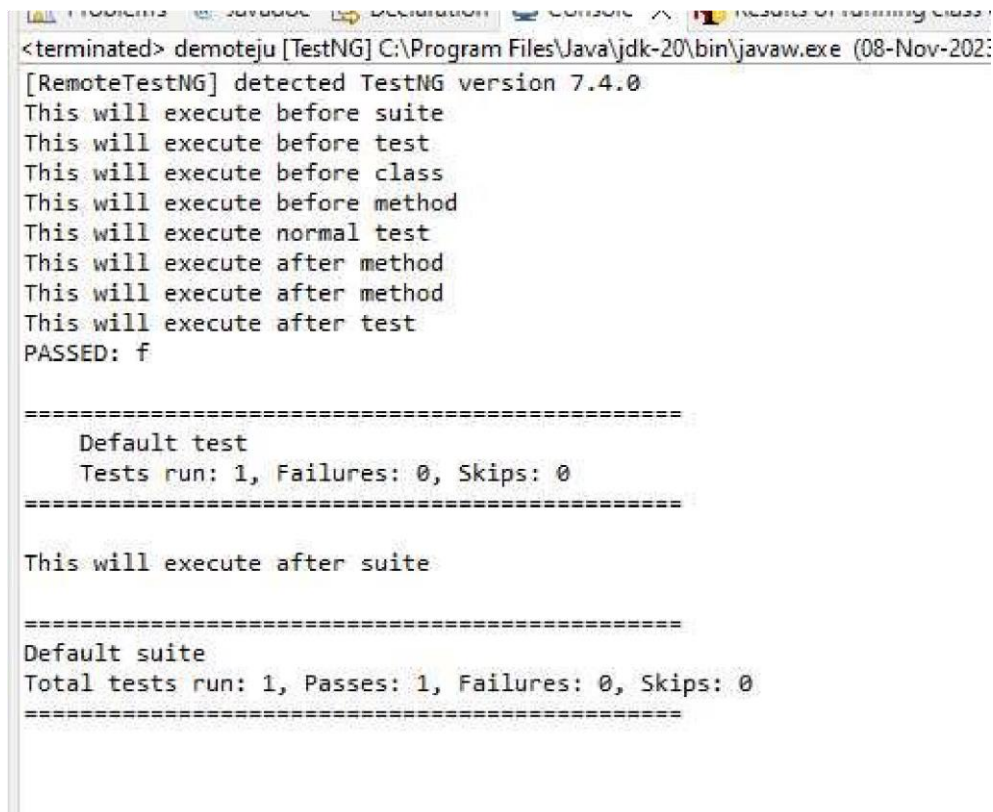


```
package TestNg;  
import org.testng.annotations.Test;  
import org.testng.annotations.BeforeMethod;
```

```
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 demoteju {
    @Test
    public void f() {
        System.out.println("This will execute normal
test");
    }
    @BeforeMethod
    public void beforeMethod() {
        System.out.println("This will execute before
method");
    }
    @AfterMethod
    public void afterMethod() {
        System.out.println("This will execute after
method");
    }
    @BeforeClass
    public void beforeClass() {
        System.out.println("This will execute before
class");
    }
    @AfterClass
    public void afterClass() {
        System.out.println("This will execute after
class");
    }
    @BeforeTest
    public void beforeTest() {
        System.out.println("This will execute before
test");
    }
    @AfterTest
    public void afterTest() {
```

```
        System.out.println("This will execute after
test");
    }
    @BeforeSuite
    public void beforeSuite() {
        System.out.println("This will execute before
suite");
    }
    @AfterSuite
    public void afterSuite() {
        System.out.println("This will execute after
suite");
    }
}
```

OUTPUT:



The screenshot shows a Java IDE console window with the following output:

```
<terminated> demoteju [TestNG] C:\Program Files\Java\jdk-20\bin\javaw.exe (08-Nov-2023)
[RemoteTestNG] detected TestNG version 7.4.0
This will execute before suite
This will execute before test
This will execute before class
This will execute before method
This will execute normal test
This will execute after method
This will execute after method
This will execute after test
PASSED: f

=====
      Default test
      Tests run: 1, Failures: 0, Skips: 0
=====

This will execute after suite

=====
Default suite
Total tests run: 1, Passes: 1, Failures: 0, Skips: 0
=====
```

TestNG Report

file:///C:/Users/Admin/Desktop/email.html

Test	# Passed	# Skipped	# Retried	# Failed	Time (ms)	Included Groups	Excluded Groups
Default suite							
Default test	1	0	0	0	24		

Class	Method	Start	Time (ms)
Default suite			
Default test — passed			
TestNg.demoteju	f	1699432372083	4

Default test

TestNg.demoteju#f

[back to summary](#)

Aim: Demonstrate annotations using TestNG

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 DemoPriority {

 @Test ()

 public void f() {

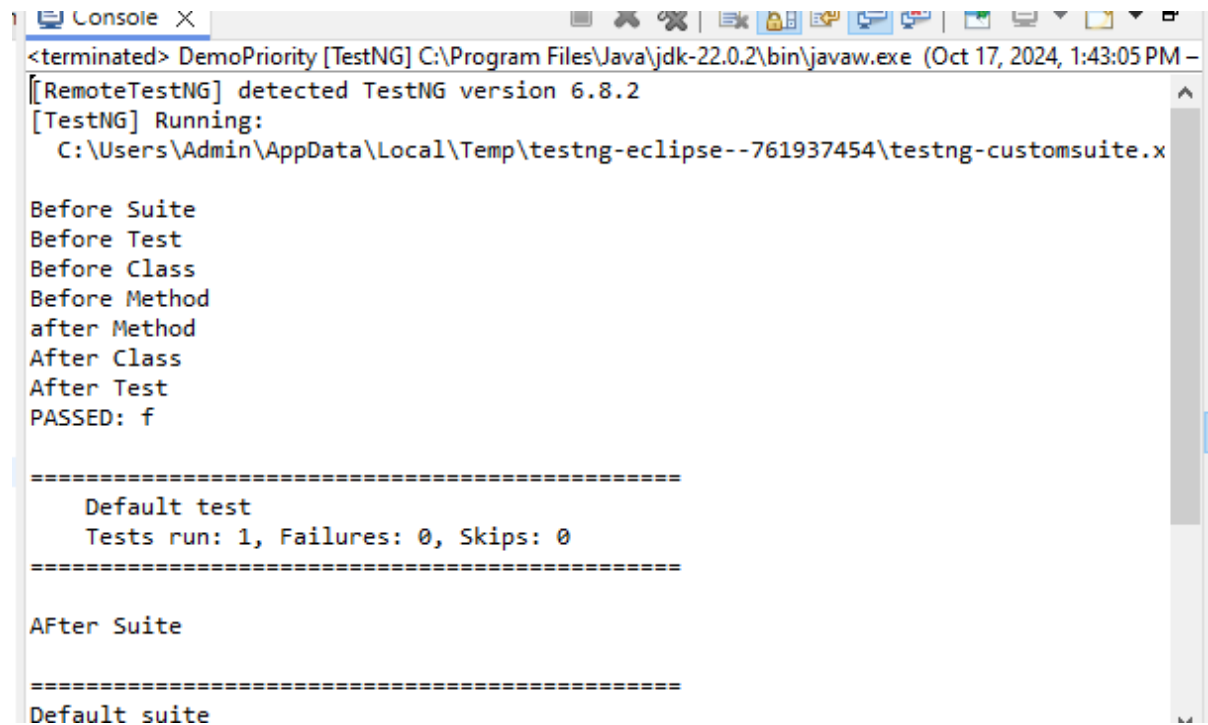
 }

 @AfterMethod

```
public void afterMethod() {  
    System.out.println("after Method");  
}  
  
@BeforeMethod  
public void beforeMethod() {  
    System.out.println("Before Method");  
}  
  
@BeforeClass  
public void beforeClass() {  
    System.out.println("Before Class");  
}  
@AfterClass  
public void afterClass() {  
    System.out.println("After Class");  
}  
  
@BeforeTest  
public void beforeTest() {  
    System.out.println("Before Test");  
}  
  
@AfterTest  
public void afterTest() {  
    System.out.println("After Test");  
}  
  
@BeforeSuite  
public void beforeSuite() {  
    System.out.println("Before Suite");  
}  
  
@AfterSuite
```

```
public void afterSuite() {  
    System.out.println("After Suite");  
}
```

Output :

A screenshot of a Java IDE's console window. The title bar shows 'Console X' and standard window controls. The text in the console is as follows:
<terminated> DemoPriority [TestNG] C:\Program Files\Java\jdk-22.0.2\bin\javaw.exe (Oct 17, 2024, 1:43:05 PM -
[[RemoteTestNG] detected TestNG version 6.8.2
[TestNG] Running:
C:\Users\Admin\AppData\Local\Temp\testng-eclipse--761937454\testng-customsuite.x

Before Suite
Before Test
Before Class
Before Method
after Method
After Class
After Test
PASSED: f

=====
Default test
Tests run: 1, Failures: 0, Skips: 0
=====

After Suite
=====
Default suite

Aim : Demonstrate Assertion TestNg Framework

```
package testng;  
  
import org.openqa.*;  
import org.openqa.selenium.WebDriver;  
import org.openqa.selenium.chrome.ChromeDriver;  
import org.testng.Assert;  
import org.testng.annotations.Test;  
  
public class AssertFa {  
    @Test
```

```
public void Bvimit() {  
  
System.setProperty("webdriver.chrome.driver","D:\\Selenium\\chromedriver-  
win64 (5)\\chromedriver-win64\\chromedriver.exe");  
  
WebDriver wd = new ChromeDriver();  
wd.get("https://www.facebook.com/");  
String expectedTitle = "Facebook";  
String actualTitle = wd.getTitle();  
Assert.assertEquals(actualTitle, expectedTitle);  
System.out.println("Title of webpage=====>" + actualTitle);  
}  
}
```

Q.

```
package testng;  
  
import org.testng.annotations.Test;  
import java.util.concurrent.TimeUnit;  
import org.openqa.selenium.By;  
import org.openqa.selenium.WebDriver;  
import org.openqa.selenium.chrome.ChromeDriver;  
import org.testng.annotations.DataProvider;  
  
public class DataOhm {  
  
    @Test(dataProvider="dp")  
    public void f(String u, String p) {  
  
System.setProperty("webdriver.chrome.driver","D:\\Selenium\\chromedriver-  
win64 (5)\\chromedriver-win64\\chromedriver.exe");  
  
        WebDriver wd= new ChromeDriver();  
        wd.get("https://demo.guru99.com/test/newtours/");  
        wd.manage().timeouts().implicitlyWait(20,TimeUnit.SECONDS);
```



```

        wd.findElement(By.name("userName")).sendKeys(u);
        wd.findElement(By.name("password")).sendKeys(p);
        wd.findElement(By.name("submit")).click();
        try {
            Thread.sleep(3000);
            wd.findElement(By.partialLinkText("SIGN-OFF")).click();
            System.out.println("Login Pass");
            wd.findElement(By.linkText("Logout"));
            System.out.println("Pass");
        } catch (Exception e) {
            System.out.print("Fail"); }
    }
}

```

Output :

```

-----
at org.testng.TestNG.runSuitesLocally(TestNG.java:1149)
at org.testng.TestNG.run(TestNG.java:1057)
at org.testng.remote.AbstractRemoteTestNG.run(AbstractRemoteTestNG.java:1)
at org.testng.remote.RemoteTestNG.initAndRun(RemoteTestNG.java:293)
at org.testng.remote.RemoteTestNG.main(RemoteTestNG.java:91)

=====
Default test
Tests run: 1, Failures: 0, Skips: 1
=====

=====
Default suite
Total tests run: 1, Failures: 1, Skips: 0
=====

[TestNG] Time taken by org.testng.reporters.EmailableReporter2@1c7696c6: 17 ms
[TestNG] Time taken by org.testng.reporters.XMLReporter@2794eab6: 7 ms

```

Aim: Demonstrate data driven Framework

```
package testng;
import org.apache.poi.xssf.usermodel.XSSFWorkbook;
import org.apache.poi.xssf.usermodel.XSSFSheet;
import org.apache.poi.xssf.usermodel.XSSFRow;
import org.apache.poi.xssf.usermodel.XSSFCell;
import java.io.FileInputStream;
public class ReadDDF {
    public static void main(String[] args) {
        try {
            FileInputStream fis = new
FileInputStream("C:\\Users\\Admin\\Documents\\Data1.xlsx");
            XSSFWorkbook workbook = new XSSFWorkbook(fis);
            XSSFSheet sheet = workbook.getSheet("Sheet1");
            for (int i = 0; i <= sheet.getLastRowNum(); i++) {
                XSSFRow row = sheet.getRow(i);
                if (row != null) { // Check if the row is not null
                    XSSFCell usernameCell = row.getCell(0);
                    XSSFCell passwordCell = row.getCell(1);
                    // Get cell values safely
                    String username = (usernameCell != null) ?
usernameCell.getStringCellValue() : "N/A";
                    String password = (passwordCell != null) ?
passwordCell.getStringCellValue() : "N/A";
                    System.out.println(username + " " + password);
                }
            }
            fis.close();
            workbook.close();
        } catch (Exception e) {
            e.printStackTrace(); // Print any exceptions that occur
        }
    }
}
```

Output:



	A	B	C
1	pqr	xyz123	
2	admin	admin123	
3			
4			
5			
6			
7			

Aim : Data driver to guru 99 website

```
import java.io.FileInputStream;
import java.io.FileOutputStream;
import java.io.IOException;
import org.apache.poi.xssf.usermodel.XSSFCell;
import org.apache.poi.xssf.usermodel.XSSFRow;
import org.apache.poi.xssf.usermodel.XSSFSheet;
import org.apache.poi.xssf.usermodel.XSSFWorkbook;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;

public class wdata {


    public static void main(String args[]) throws InterruptedException,
    IOException {

        // Initialize WebDriver
```

```
WebDriver wd = new ChromeDriver();
// Open the URL
wd.get("https://demo.guru99.com/test/newtours/");
Thread.sleep(3000);
// Read data from Excel file
FileInputStream fis = new FileInputStream("D:\\Selenium\\data2.xlsx");
XSSFWorkbook wk = new XSSFWorkbook(fis);
XSSFSheet sh = wk.getSheet("Sheet1");
// Iterate through rows
for (int i = 0; i <= sh.getLastRowNum(); i++) {
    XSSFRow rw = sh.getRow(i);
    XSSFCell un = rw.getCell(0);
    XSSFCell pw = rw.getCell(1);
    XSSFCell res = rw.createCell(2);
    // Perform actions on the website
    wd.findElement(By.name("userName")).sendKeys(un.toString());
    wd.findElement(By.name("password")).sendKeys(pw.toString());
    wd.findElement(By.name("submit")).click();
    // Print login details
    System.out.println(un + " " + pw);
}
// Close workbook and file input stream
wk.close();
fis.close();
}
```

Output :

Chrome is being controlled by automated test software.



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