

Phase – 5 Practice Project: Assisted Practice

11. Selenium Integration with Jenkins.

- Code
- ✓ Create Maven Project

✓ pom.xml

```
<project xmlns="http://maven.apache.org/POM/4.0.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
https://maven.apache.org/xsd/maven-4.0.0.xsd">
  <modelVersion>4.0.0</modelVersion>
  <groupId>hello-selenium-testng</groupId>
  <artifactId>hello-selenium-testng</artifactId>
  <version>0.0.1-SNAPSHOT</version>
  <dependencies>
    <!--

    https://mvnrepository.com/artifact/org.seleniumhq.selenium/selenium
-java -->
    <dependency>
      <groupId>org.seleniumhq.selenium</groupId>
      <artifactId>selenium-java</artifactId>
      <version>4.10.0</version>
    </dependency>

    <!--

    https://mvnrepository.com/artifact/org.seleniumhq.selenium/selenium
-chrome-driver -->
    <dependency>
      <groupId>org.seleniumhq.selenium</groupId>
      <artifactId>selenium-chrome-driver</artifactId>
      <version>4.10.0</version>
    </dependency>

    <!--

    https://mvnrepository.com/artifact/org.seleniumhq.selenium/selenium
-firefox-driver -->
    <dependency>
      <groupId>org.seleniumhq.selenium</groupId>
      <artifactId>selenium-firefox-driver</artifactId>
      <version>4.10.0</version>
    </dependency>

    <dependency>
      <groupId>org.testng</groupId>
      <artifactId>testng</artifactId>
      <version>7.8.0</version>
      <scope>compile</scope>
    </dependency>
```

```

<!-- ReportNG-->
<dependency>
  <groupId>org.uncommons</groupId>
  <artifactId>reportng</artifactId>
  <version>1.1.4</version>
</dependency>
<dependency>
  <groupId>com.google.inject</groupId>
  <artifactId>guice</artifactId>
  <version>4.2.2</version>
</dependency>
</dependencies>

<build>
  <plugins>
    <plugin>
      <groupId>org.apache.maven.plugins</groupId>
      <artifactId>maven-compiler-plugin</artifactId>
      <configuration>
        <source>1.8</source>
        <target>1.8</target>
      </configuration>
    </plugin>
    <plugin>
      <groupId>org.apache.maven.plugins</groupId>
      <artifactId>maven-surefire-plugin</artifactId>
      <configuration>
        <suiteXmlFiles>
          <suiteXmlFile>testng.xml</suiteXmlFile>
        </suiteXmlFiles>

        <properties>
          <property>
            <name>usedefaultlisteners</name>
            <value>>false</value>
          </property>
          <property>
            <name>listener</name>
            <value>org.uncommons.reportng.HTMLReporter,
            org.uncommons.reportng.JUnitXMLReporter
          </value>
          </property>
        </properties>

      </configuration>
    </plugin>
  </plugins>
</build>

</project>

```

✓ FBRegistration.java

```
package com.ecommerce.test;
// D:\\Eclipse Projects\\hello-selenium\\src\\main\\resources\\test.html

import java.util.List;

import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.support.ui.Select;
import org.testng.annotations.AfterClass;
import org.testng.annotations.AfterMethod;
import org.testng.annotations.AfterSuite;
import org.testng.annotations.AfterTest;
import org.testng.annotations.BeforeClass;
import org.testng.annotations.BeforeMethod;
import org.testng.annotations.BeforeSuite;
import org.testng.annotations.BeforeTest;
import org.testng.annotations.DataProvider;
import org.testng.annotations.Test;
import org.testng.asserts.SoftAssert;

@Test(groups="class1")
public class FBRegistration {
    public WebDriver driver;
    public String baseUrl = "D:\\\\Eclipse Projects\\\\hello-selenium\\\\src\\\\main\\\\resources\\\\test.html";

    // Soft Assertion
    SoftAssert softAssert = new SoftAssert();

    @Test(groups= {"Google"})
    public void searchGoogle() {
        System.out.printf("Inside %s and thread-id is %s \n", "searchGoogle", Thread.currentThread().getId());

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

        System.out.println("Title of google page is " + driver.getTitle());

        // Assertion
        softAssert.assertEquals(driver.getTitle(), "Google");
        softAssert.assertAll("Google Title did not Match");
    }

    @Test(groups = { "Account Creation" })
    public void fbAccount() {
        System.out.printf("Inside %s and thread-id is %s \n", "fbAccount", Thread.currentThread().getId());

        String baseUrl = "https://www.facebook.com/r.php?locale=en_GB&display=page";

        driver.get(baseUrl);
```

```

        String cssDay = "#day";
        WebElement cssDaySelect =
driver.findElement(By.cssSelector(cssDay));

        // Assertion
        softAssert.assertNotNull(cssDaySelect);

        Select daySelect = new Select(cssDaySelect);
        daySelect.selectByVisibleText("11");

        WebElement cssGenderRadio =
driver.findElement(By.cssSelector("span > span >
input[type='radio'][value='2']"));

        // Assertion
        softAssert.assertNotNull(cssGenderRadio);

        cssGenderRadio.click();

        System.out.println("Gender is enabled = " +
cssGenderRadio.isSelected());

        // Assertion
        softAssert.assertTrue(cssGenderRadio.isSelected());
        softAssert.assertAll("Either Day or Gender element was not
located OR gender selection failed");
    }

    @Test(groups= {"Account Creation", "Google"}, dataProvider =
"googleNewUserData")
    public void googleAccount(String fName, String lName) {
        System.out.printf("Inside %s and thread-id is %s
\n","googleAccount", Thread.currentThread().getId() );

        String baseUrl =
"https://accounts.google.com/signup/v2?biz=true&flowEntry=SignUp";
        driver.get(baseUrl);

        // Let's locate the first name text field by its id.
        WebElement firstNameTF =
driver.findElement(By.id("firstName"));
        firstNameTF.sendKeys(fName);
        // firstNameTF.sendKeys("Myname");

        // Let's locate the surname name text field by its name.
        WebElement surNameTF =
driver.findElement(By.name("lastName"));
        surNameTF.sendKeys(lName);
        // surNameTF.sendKeys("latName");

        // The Next button using its class
        WebElement nextButton =
driver.findElement(By.className("VfPpkd-vQzf8d"));
        System.out.println("Text on the button is " +
nextButton.getText());
    }

```

```

    }

    @Test(groups= {"Dummy"}, dependsOnGroups = {"Account Creation"})
    public void f1() {
        System.out.printf("Inside %s and thread-id is %s \n","f1",
Thread.currentThread().getId() );
    }
    @Test(enabled = false, dependsOnMethods = {"testLocalPage"})
    public void f2() {
        System.out.printf("Inside %s and thread-id is %s \n","f2",
Thread.currentThread().getId() );
    }

    @Test()
    public void testLocalPage() {
        System.out.printf("Inside %s and thread-id is %s
\n","testLocalPage", Thread.currentThread().getId() );

        driver.get(baseUrl);

        WebElement selectMonthElement =
driver.findElement(By.id("month"));
        Select selectMonth = new Select(selectMonthElement);

        System.out.println("selectMonth is muti select " +
selectMonth.isMultiple());

        selectMonth.selectByIndex(0);
        selectMonth.selectByIndex(6);

        List<WebElement> optionsList =
selectMonth.getAllSelectedOptions();

        for (WebElement option : optionsList)
            System.out.println("selectMonth selected options are " +
option.getText());
    }

    @BeforeMethod
    public void beforeMethod() {
        System.out.printf("Inside %s and thread-id is %s
\n","beforeMethod", Thread.currentThread().getId() );
    }

    @AfterMethod
    public void afterMethod() {
        System.out.printf("Inside %s and thread-id is %s
\n","afterMethod", Thread.currentThread().getId() );
    }

    @DataProvider(name = "googleNewUserData")
    public Object[][] googleNewUserData() {
        return new Object[][] {
            { "fname1", "lname1" },
            { "fname2", "lname2" },
        }
    }

```

```

        };
    }

    @BeforeClass
    public void beforeClass() {
        System.out.printf("Inside %s and thread-id is %s\n", "beforeClass", Thread.currentThread().getId() );
    }

    @AfterClass
    public void afterClass() {
        System.out.printf("Inside %s and thread-id is %s\n", "afterClass", Thread.currentThread().getId() );
    }

    @BeforeTest
    public void beforeTest() {
        System.out.printf("Inside %s and thread-id is %s\n", "beforeTest", Thread.currentThread().getId() );
    }

    @AfterTest
    public void afterTest() {
        System.out.printf("Inside %s and thread-id is %s\n", "afterTest", Thread.currentThread().getId() );
    }

    @BeforeSuite
    public void beforeSuite() {
        System.out.printf("Inside %s and thread-id is %s\n", "beforeSuite", Thread.currentThread().getId() );
        System.setProperty("webdriver.chrome.driver",
            "D:\\Downloads\\chromedriver_win32\\chromedriver.exe");

        driver = new ChromeDriver();
    }

    @AfterSuite
    public void afterSuite() {
        System.out.printf("Inside %s and thread-id is %s\n", "afterSuite", Thread.currentThread().getId() );
        driver.quit();
    }
}

```

✓ testng.xml

```

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

    <test thread-count="5" name="Test Facebook" >
        <!-- <test thread-count="5" name="Test Facebook" parallel="methods">
            parallel = "classes"

```

```

parallel = "tests"
-->
  <classes>
    <class name="com.ecommerce.test.FBRegistration"/>
  </classes>
</test> <!-- Test -->

<!-- Test
<test thread-count="5" name="Test Google">
  <classes>
    <class name="com.ecommerce.test.GoogleRegistration"/>
  </classes>
</test>
-->
</suite> <!-- Suite -->

```

✓ Login to Jenkins - Adding Maven plugins to Jenkins

- In the Jenkins dashboard, click on Manage Jenkins
- Click on Manage Plugins
- Select the Available tab, then find the Maven Integration plugin
- Click Install without restart

✓ Adding the location of pom.xml in Jenkins CI Job

- Click on New Item to create CI Job
- Select the Maven project radio button and enter Item Name as BuildMyTestNGProject
- Click on Build Environment
- In Root POM, specify the location of pom.xml from your Eclipse workspace
- In Goals and Options, type clean test. Click on Save
- Click on the BuildMyTestNGProject project page and click on the Build Now link

• Output

```

[RemoteTestNG] detected TestNG version 7.8.0
SLF4J: Failed to load class "org.slf4j.impl.StaticLoggerBinder".
SLF4J: Defaulting to no-operation (NOP) logger implementation
SLF4J: See http://www.slf4j.org/codes.html#StaticLoggerBinder for further details.
Inside beforeSuite and thread-id is 1
Jul 20, 2023 7:19:33 PM org.openqa.selenium.remote.service.DriverService$Builder getLogOutput
INFO: Driver logs no longer sent to console by default; https://www.selenium.dev/documentation/webdriver/drivers/service/#setting-log-output
Inside beforeTest and thread-id is 1
Inside beforeClass and thread-id is 1
Inside beforeMethod and thread-id is 1
Inside fbAccount and thread-id is 1
Gender is enabled = true
Inside afterMethod and thread-id is 1
Inside beforeMethod and thread-id is 1
Inside googleAccount and thread-id is 1
Text on the button is Next
Inside afterMethod and thread-id is 1
Inside beforeMethod and thread-id is 1
Inside googleAccount and thread-id is 1
Text on the button is Next
Inside afterMethod and thread-id is 1
Inside beforeMethod and thread-id is 1
Inside searchGoogle and thread-id is 1
Title of google page is Google
Inside afterMethod and thread-id is 1
Inside beforeMethod and thread-id is 1
Inside testLocalPage and thread-id is 1
selectMonth is muti select true
selectMonth selected options are Jan
selectMonth selected options are Jul
Inside afterMethod and thread-id is 1
Inside beforeMethod and thread-id is 1
Inside fl and thread-id is 1
Inside afterMethod and thread-id is 1
Inside afterClass and thread-id is 1
Inside afterTest and thread-id is 1
Inside afterSuite and thread-id is 1

Inside afterSuite and thread-id is 1

=====
Suite
Total tests run: 6, Passes: 6, Failures: 0, Skips: 0
=====
```

BuildMyTestNGProject [Jenkins]

localhost:8888/job/BuildMyTestNGProject/

New Folder Folders VK Learning's Open Source Socials Stuff Resume Mphasis LH

Jenkins

Search (CTRL+K)

admin log out

Dashboard > BuildMyTestNGProject >

Status

Changes

Workspace

Build Now

Configure

Delete Maven project

Modules

Rename

Build History

trend

Filter builds...

Jul 20, 2023, 5:44 PM

Jul 20, 2023, 5:43 PM

Jul 20, 2023, 5:41 PM

Jul 20, 2023, 5:39 PM

Jul 20, 2023, 5:35 PM

Jul 20, 2023, 5:28 PM

Maven project BuildMyTestNGProject

TestNG + Selenium Project for Account Creation

Latest Test Result (no failures)

Permalinks

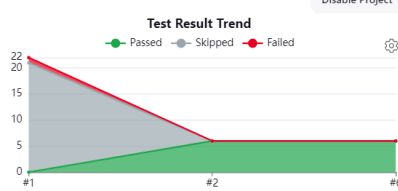
- Last build (#6), 1 hr 42 min ago
- Last stable build (#6), 1 hr 42 min ago
- Last successful build (#6), 1 hr 42 min ago
- Last failed build (#4), 1 hr 45 min ago
- Last unstable build (#1), 1 hr 58 min ago
- Last unsuccessful build (#5), 1 hr 44 min ago
- Last completed build (#6), 1 hr 42 min ago

Test Result Trend

Passed

Skipped

Failed



BuildMyTestNGProject #6 [Jenkin: x +

localhost:8888/job/BuildMyTestNGProject/6/

New Folder Folders VK Learning's Open Source Socials Stuff Resume Mphasis LH

Jenkins

Search (CTRL+K)

2

admin

log out

Dashboard > BuildMyTestNGProject > #6

Status

Changes

Console Output

Edit Build Information

Delete build '#6'

Test Result

Redeploy Artifacts

See Fingerprints

Previous Build

Build #6 (Jul 20, 2023, 5:44:37 PM)

Keep this build forever

Started 1 hr 43 min ago

Took 31 sec

Add description

No changes.

Started by user admin

Test Result (no failures)

Module Builds

hello-selenium-testing 21 sec

REST API Jenkins 2.401.2

BuildMyTestNGProject #6 Console: x +

localhost:8888/job/BuildMyTestNGProject/6/console

New Folder Folders VK Learning's Open Source Socials Stuff Resume Mphasis LH

Jenkins

Search (CTRL+K)

2

admin

log out

Dashboard > BuildMyTestNGProject > #6 > Console Output

Console Output

View as plain text

Edit Build Information

Delete build '#6'

Test Result

Redeploy Artifacts

See Fingerprints

Previous Build

Console Output

Started by user admin

Running as SYSTEM

Building in workspace C:\ProgramData\Jenkins\jenkins\workspace\BuildMyTestNGProject

Unpacking https://repo.maven.apache.org/maven2/org/apache/maven/apache-maven/3.9.2/apache-maven-3.9.2-bin.zip to C:\ProgramData\Jenkins\jenkins\tools\hudson.tasks.Maven_MavenInstallation\Maven on Jenkins

Parsing POMs

Established TCP socket on 63220

[hello-selenium-testing] \$ java -cp C:\ProgramData\Jenkins\jenkins\plugins\maven-plugin\WEB-INF\lib\maven35-agent-1.14.jar;C:\ProgramData\Jenkins\jenkins\tools\hudson.tasks.Maven_MavenInstallation\Maven\boot\plexus-classworlds-2.7.0.jar;C:\ProgramData\Jenkins\jenkins\tools\hudson.tasks.Maven_MavenInstallation\Maven\conf\logging_jenkins.maven3.agent.Maven35Main C:\ProgramData\Jenkins\jenkins\tools\hudson.tasks.Maven_MavenInstallation\Maven C:\ProgramData\Jenkins\war\WEB-INF\lib\remoting-3107.v665000b_51092.jar C:\ProgramData\Jenkins\jenkins\plugins\maven-plugin\WEB-INF\lib\maven35-interceptor-1.14.jar C:\ProgramData\Jenkins\jenkins\plugins\maven-plugin\WEB-INF\lib\maven3-interceptor-commons-1.14.jar 63220

<===[JENKINS REMOTING CAPACITY]===>channel started

Executing Maven: -B -f D:\Eclipse Projects\hello-selenium-testing\pom.xml clean test

[INFO] Scanning for projects...

[WARNING]

[WARNING] Some problems were encountered while building the effective model for hello-selenium-testing:hello-selenium-testing:jar:0.0.1-SNAPSHOT

[WARNING] 'build.plugins.plugin.version' for org.apache.maven.plugins:maven-compiler-plugin is missing. @ line 56, column 12

[WARNING] 'build.plugins.plugin.version' for org.apache.maven.plugins:maven-surefire-plugin is missing. @ line 64, column 12

[WARNING]

[WARNING] It is highly recommended to fix these problems because they threaten the stability of your build.

[WARNING]

[WARNING] For this reason, future Maven versions might no longer support building such malformed projects.

[WARNING]

BuildMyTestNGProject #6 Console

localhost:8888/job/BuildMyTestNGProject/6/console

New FolderFoldersVKLearning'sOpen SourceSocialsStuffResumeMphasisLH

Dashboard > BuildMyTestNGProject > #6 > Console Output

Inside afterTest and thread-id is 1
Inside afterSuite and thread-id is 1
[INFO] Tests run: 6, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 13.495 s - in TestSuite
[INFO]
[INFO] Results:
[INFO]
[INFO] Tests run: 6, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[JENKINS] Recording test results
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 22.217 s
[INFO] Finished at: 2023-07-20T17:45:06+05:30
[INFO] -----
[WARNING]
[WARNING] Plugin validation issues were detected in 2 plugin(s)
[WARNING]
[WARNING] * org.apache.maven.plugins:maven-compiler-plugin:3.10.1
[WARNING] * org.apache.maven.plugins:maven-resources-plugin:3.3.0
[WARNING]
[WARNING] For more or less details, use 'maven.plugin.validation' property with one of the values (case insensitive): [BRIEF, DEFAULT, VERBOSE]
[WARNING]
Waiting for Jenkins to finish collecting data
[JENKINS] Archiving D:\Eclipse Projects\hello-selenium-testng\pom.xml to hello-selenium-testng\hello-selenium-testng\0.0.1-SNAPSHOT\hello-selenium-testng-0.0.1-SNAPSHOT.pom
channel stopped
Finished: SUCCESS

REST APIJenkins 2.401.2