

Lesson 6



PERFORM DATA DRIVEN FRAMEWORK TESTING WITH SELENIUM

Edureka!Live

Note and presentation: N.C. Danh

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College of Information and Communication Technology

Can Tho University

13/04/2023

Agenda For The Session



- i. **Selenium** As An Automation Testing Tool?
- ii. What Is **Data Driven Framework**?
- iii. Using **Apache POI** To Achieve Data Driven Testing
- iv. **Demo:** Implementing Data Driven Testing In Selenium

Selenium Automation Testing Tool

Selenium is an open-source tool which ***automates web browser testing***.

It is mainly used for functional testing (unit testing & regression testing).

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Programming Language Support



Web Browser Support



Operating System Support





What Is Data Driven Framework?

Let's understand what is Data Driven testing and
what are its benefits.

What Is Data Driven Framework?

Data Driven Framework is a testing strategy in which the **data set** under test, is stored separately from the **test script**.

DATA DRIVEN FRAMEWORK



Code and data stored separately

Features

- Automation testing is driven by the **data set** under test.
- Same test script will work for different data sets.
- **Eg:-** Login credentials stored in excel & passed as parameters to the code.

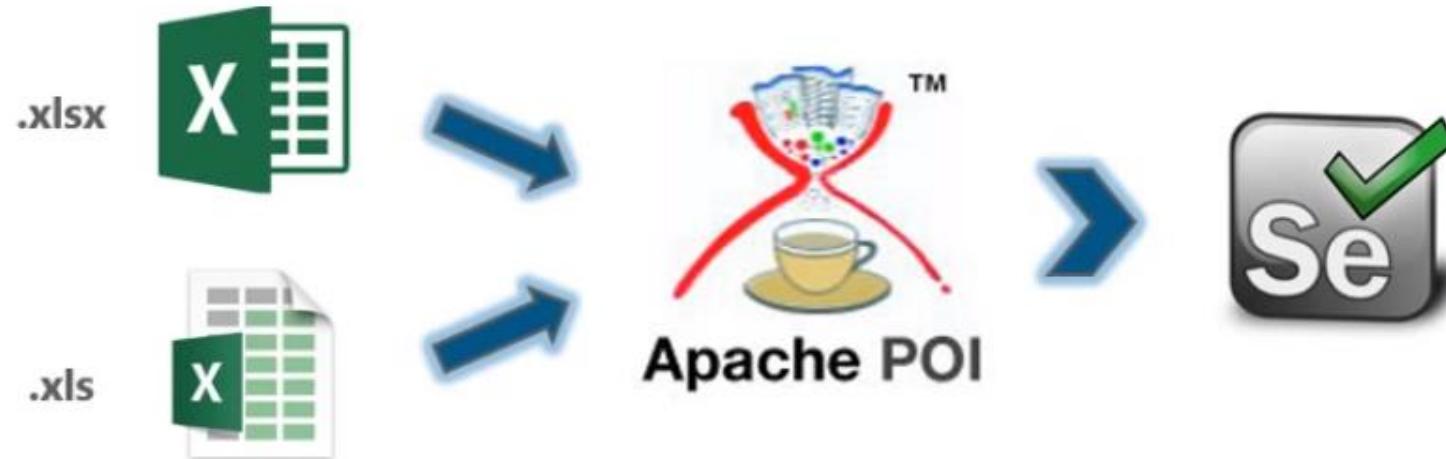


The Question Is:-

**Does Selenium WebDriver support reading
of data from an Excel file for input?**

Selenium WebDriver + Apache POI

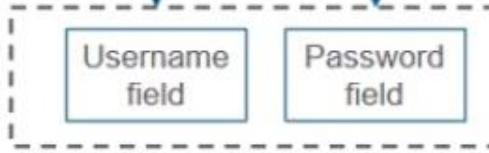
No! Selenium WebDriver does not support *read* and *write* operations on excel files.
But, it can be supported with the integration of third party tool (Apache POI).



Apache POI is a library, which allows you to read, create & edit Microsoft Office-documents using Java.
Advantages:- Easy **maintenance** and improved **test coverage**.

Integrating Selenium WebDriver & Apache POI

	A	B
1	edureka	edureka123
2	mercury	mercury
3	Admin	admin123
4	Admin	admin124
5	Admin	admin125
6		



Method which takes the input from the mentioned Excel file.

```
@DataProvider(name="testdata")
public Object[][] TestDataFeed()
{
    ...
    ExcelDataFile config = new ExcelDataFile("C:\\\\Users\\\\Vardhan\\\\workspace\\\\Selenium\\\\LoginCredentials.xlsx");
    ...
    int rows = config.getRowCount(0);
    ...
    Object[][] credentials=new Object[rows][2];
    ...
    for(int i=0;i<rows;i++)
    {
        ...
        credentials[i][0] = config.getData(0, i, 0);
        credentials[i][1] = config.getData(0, i, 1);
    }
    ...
    return credentials;
}
```



Hands-on:-

Selenium WebDriver + Apache POI

Let's learn how Selenium & POI are used together to achieve Data Driven Testing in Selenium with a Demo.

How to use Selenium WebDriver with Apache POI?

- Download
- Add Jars to a project
- Create an Excel file and read data from it



Apache POI download



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About 1,010,000 results (0.45 seconds)

[Download Release Artifacts - Apache POI](https://poi.apache.org/download.html)

<https://poi.apache.org> › download ▾

5 days ago - This page provides instructions on how to download release artifacts. There are different versions available ...

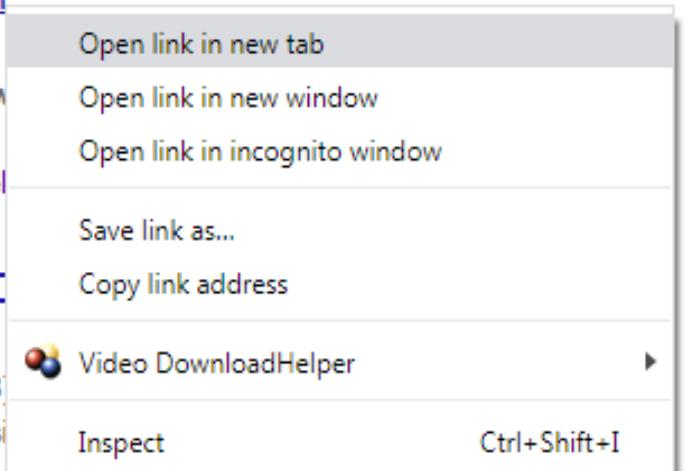
[History of Changes](#) · Of /dist/poi/release/bin · Of /dist/poi/rel...

[Apache POI - the Java API for Microsoft Office](https://poi.apache.org/)

<https://poi.apache.org> ▾

Apache POI is your Java Excel solution (for Excel 97-2008) and have the time: Download the source from the Subversive

- Search: “Apache POI download”
- Open the first link in a new tab



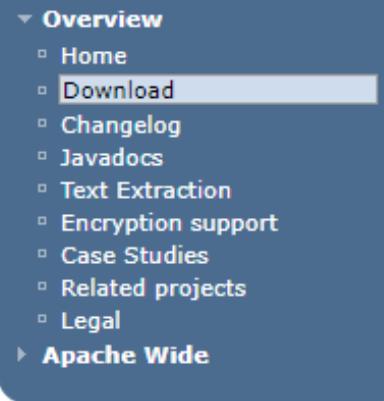
People also ask

How do I download Apache POI?

How do I download and install Apache POI?

[Apache Software Foundation](#) > [Apache POI](#) > [Home](#) [Help](#) [Component APIs](#) [Getting Involved](#)

Last Published: 11/03/2021 17:44:36



Apache POI - Download Release Artifacts

Available Downloads

This page provides instructions on how to download and verify the Apache POI release artifacts. There are different versions available depending on how stable your code should be.

- [The latest stable release is Apache POI 5.1.0](#)
- [Archives of all prior releases](#)

Click on [The latest stable release is Apache POI 5.1.0](#)

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To ensure that you have downloaded the true release you should [verify the integrity](#) of the files using the signatures and checksums available from this page.

1 November 2021 - POI 5.1.0 available

The Apache POI team is pleased to announce the release of 5.1.0. Featured are a handful of new areas of functionality and numerous bug fixes.

- Javadocs
- Text Extraction
- Encryption support
- Case Studies
- Related projects
- Legal
- ▶ Apache Wide



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1 November 2021 - POI 5.1.0 available

The Apache POI team is pleased to announce the release of 5.1.0. Featured are a handful of new areas of functionality and numerous bug fixes.

A summary of changes is available in the [Release Notes](#). A full list of changes is available in the [change log](#). People interested should also follow the [dev list](#) to track progress.

The POI source release as well as the pre-built binary deployment packages are listed below. Pre-built versions of all [POI components](#) are available in the central Maven repository under Group ID "org.apache.poi" and Version "5.1.0".

Binary Distribution

- [poi-bin-5.1.0-20211024.tgz](#) (57 MB, [signature](#))
- [poi-bin-5.1.0-20211024.zip](#) (57 MB, [signature](#))

Click on <https://poi-bin-5.1.0-20211024.zip>

Source Distribution

- [poi-src-5.1.0-20211024.tgz](#) (110 MB, [signature \(.asc\)](#), checksum: [SHA-256](#), [SHA-512](#))
- [poi-src-5.1.0-20211024.zip](#) (114 MB, [signature \(.asc\)](#), checksum: [SHA-256](#), [SHA-512](#))

Verify

It is essential that you verify the integrity of the downloaded files using the PGP and SHA2 signatures. Please read [Verifying Apache HTTP Server Releases](#) for more information on why you should verify our releases. This page provides detailed instructions which you can use for POI artifacts.

The PGP signatures can be verified using PGP or GPG. First download the [KEYS](#) file as well as the .asc signature files for the relevant release packages. Make sure you get these files from the main distribution directory, rather than from a mirror. Then [verify the signatures](#).

Batch check of all distribution files:



COMMUNITY-LED DEVELOPMENT "THE APACHE WAY"



We suggest the following site for your download:

<https://dlcdn.apache.org/poi/release/bin/poi-bin-5.1.0-20211024.zip>

Alternate download locations are suggested below.

It is essential that you verify the integrity of the downloaded file using the PGP signature ([.asc](#) file) or a hash ([.md5](#) or [.sha*](#) file).

HTTP

<https://dlcdn.apache.org/poi/release/bin/poi-bin-5.1.0-20211024.zip>

Click on this link

BACKUP SITE

<https://downloads.apache.org/poi/release/bin/poi-bin-5.1.0-20211024.zip>

VERIFY THE INTEGRITY OF THE FILES

It is essential that you verify the integrity of the downloaded file using the PGP signature ([.asc](#) file) or a hash ([.md5](#) or [.sha*](#) file). Please read [Verifying Apache](#)

Install selenium

File Home Share View

Pin to Quick access Copy Paste Cut Copy path Paste shortcut Move to Copy to Delete Rename New item New folder New Open Properties Select all Select none Invert selection

Clipboard Organize New Open Select

← → ↑ This PC > Software (D:) > Install selenium Search Install sele...

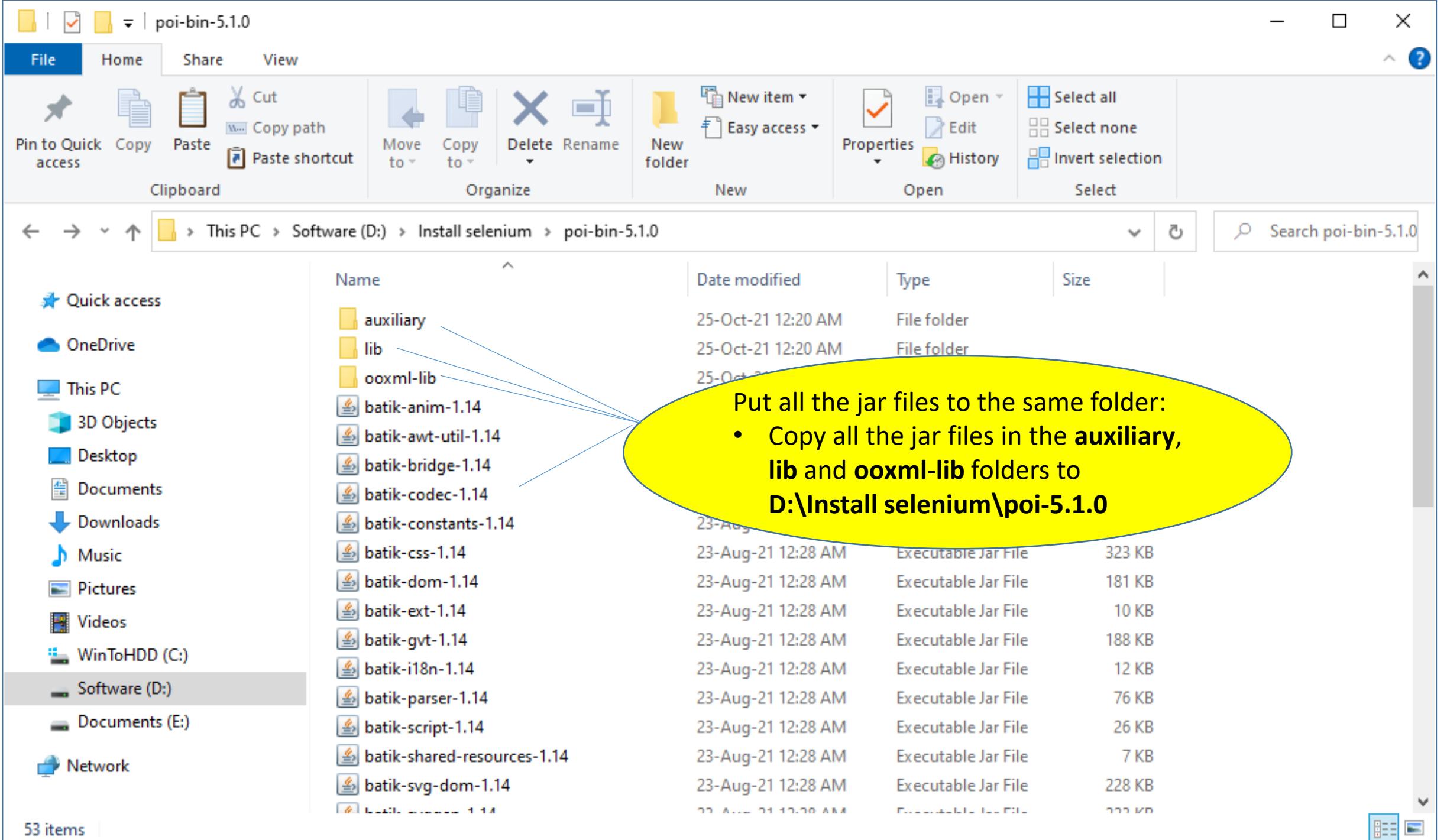
Quick access OneDrive This PC 3D Objects Desktop Documents Downloads Music Pictures Videos WinToHDD (C:) Software (D:) Documents (E:) Network

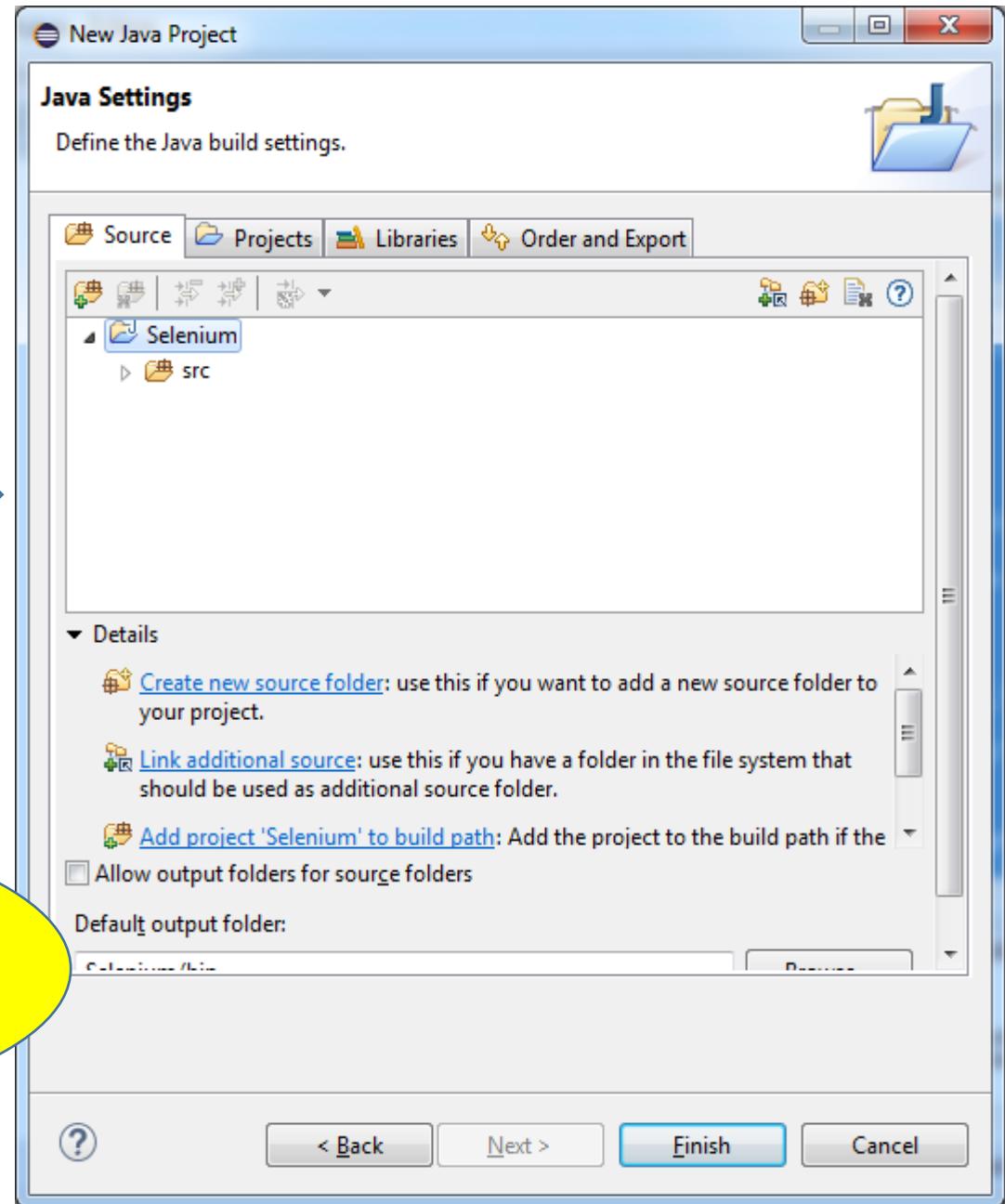
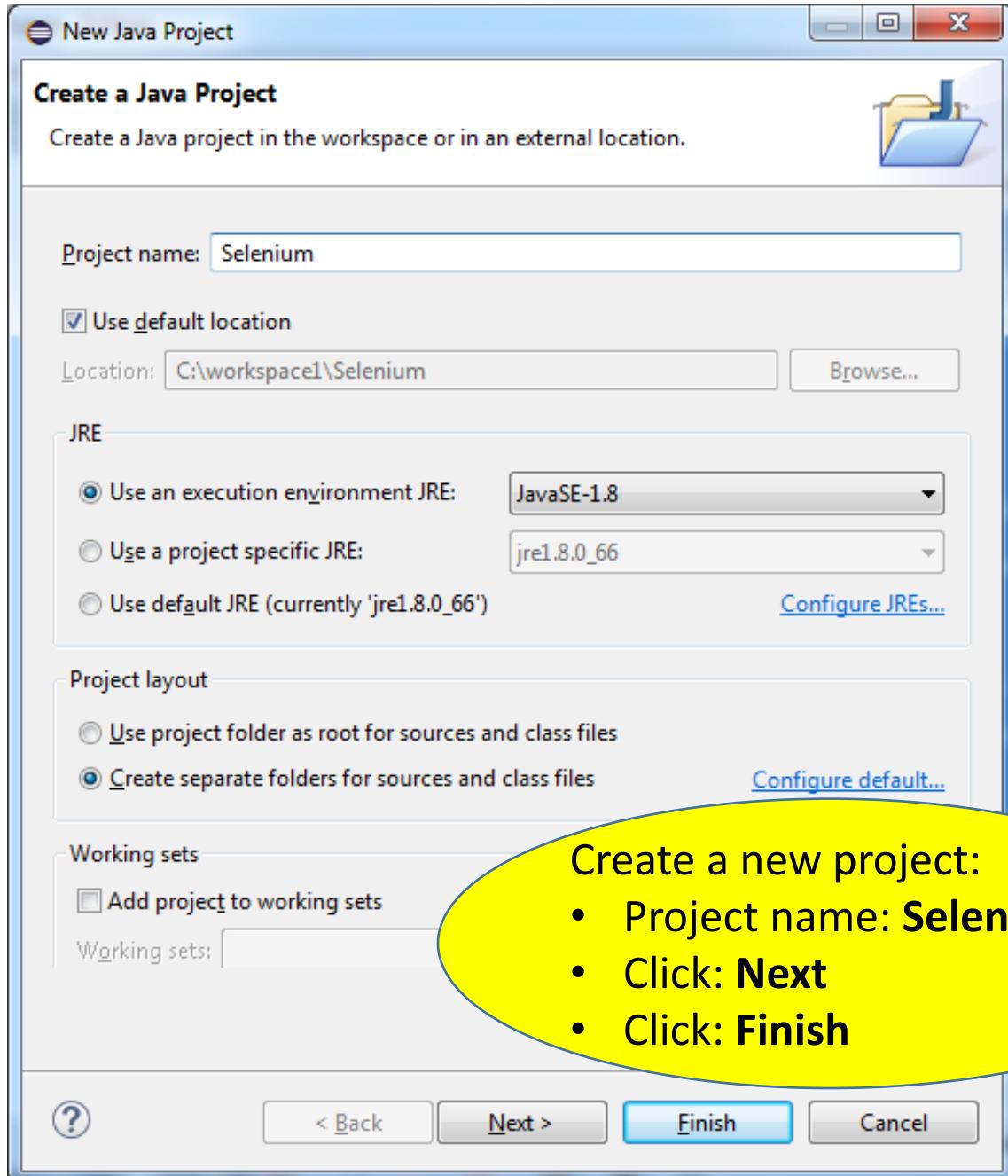
Name Date modified Type Size

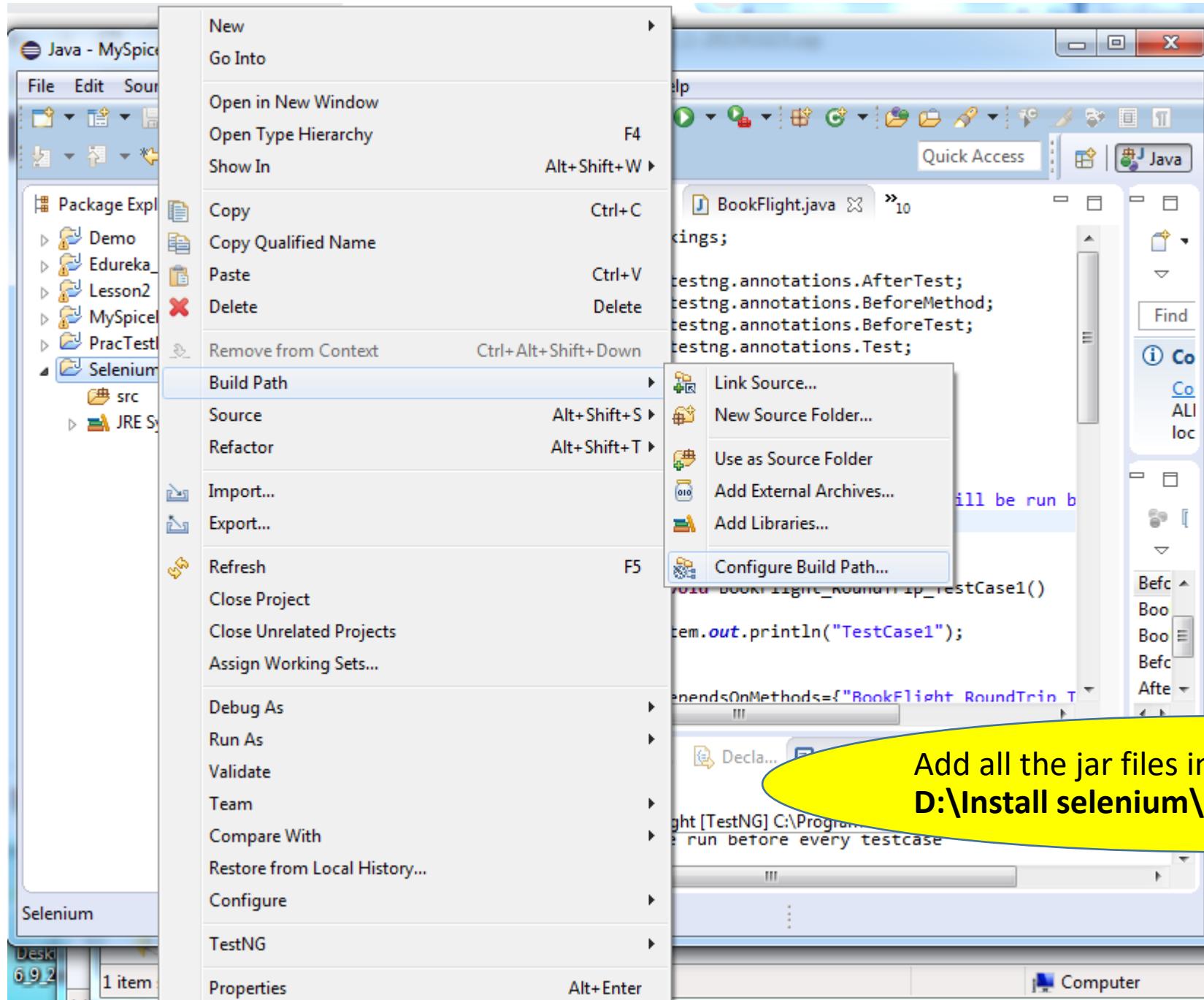
Extract poi-bin-5.1.0-20211024.zip to get the poi-5.1.0 folder

Name	Date modified	Type	Size
chromedriver_win32	29-May-2012 07 AM	File folder	
geckodriver-v0.26.0-win64	30-Oct-19 11:26 PM	File folder	
Java			
poi-4.1.1	30-Oct-19 11:26 PM	File folder	
poi-bin-5.1.0	25-Oct-21 12:20 AM	File folder	
selenium-server-3.9.1	16-Oct-19 2:11 PM	File folder	
chromedriver_win32	20-Oct-21 3:58 PM	WinRAR ZIP archive	5,854 KB
geckodriver-v0.26.0-win64	16-Oct-19 11:28 PM	WinRAR ZIP archive	1,497 KB
poi-bin-4.1.1-20191023	30-Oct-19 11:14 PM	WinRAR ZIP archive	39,495 KB
poi-bin-5.1.0-20211024	03-Nov-21 4:08 PM	WinRAR ZIP archive	58,458 KB
selenium-server-3.9.1	16-Oct-19 2:08 PM	WinRAR ZIP archive	21,553 KB
selenium-server-standalone-3.9.1	16-Oct-19 2:09 PM	Executable Jar File	22,880 KB

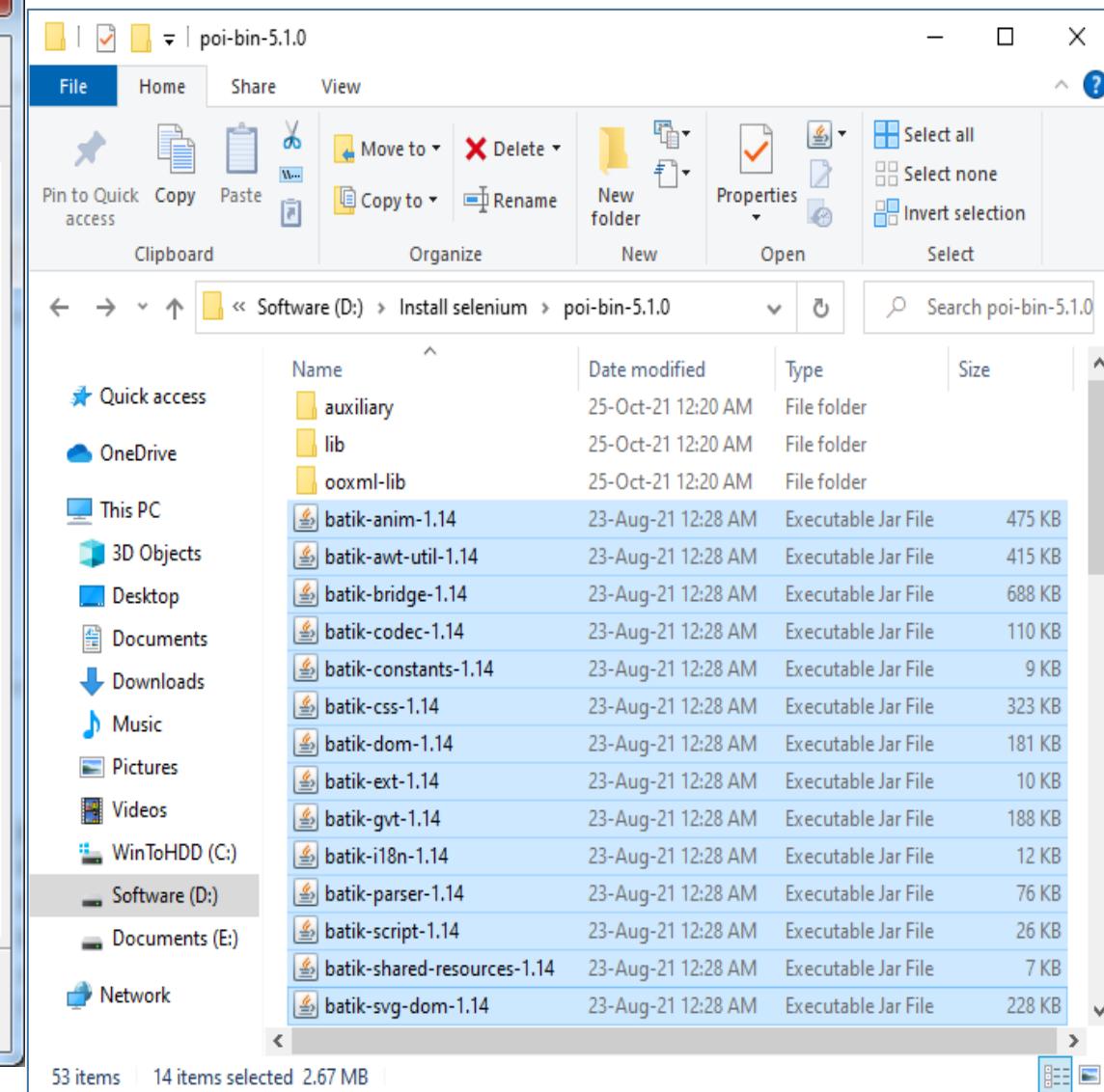
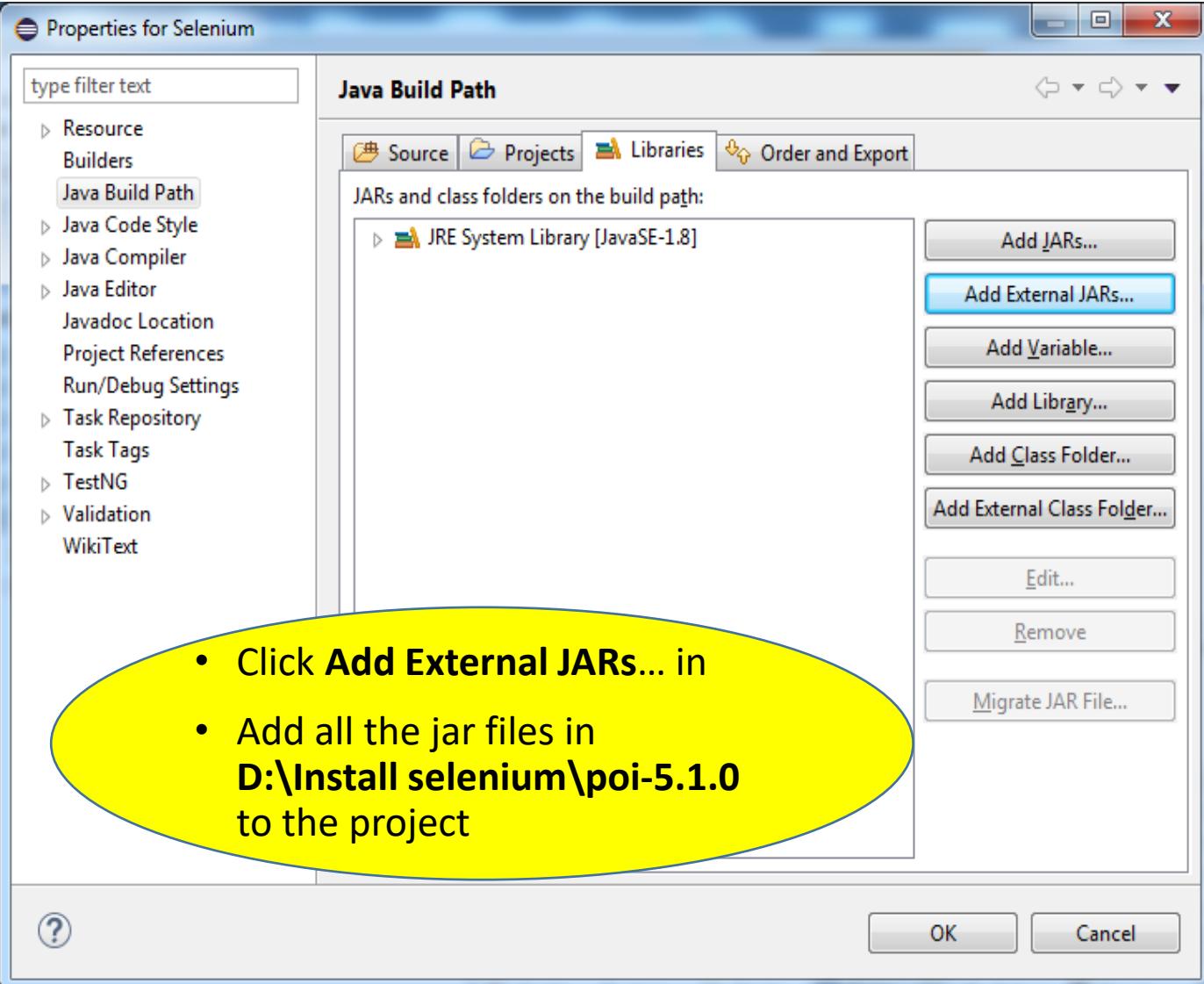
12 items | 1 item selected







Add all the jar files in
D:\Install selenium\poi-5.1.0 to the project



File Home Insert Page Layout Formulas Data Review View Tell me what you want to do

Cut Copy Format Painter

Font Alignment Number Styles Cells Editing

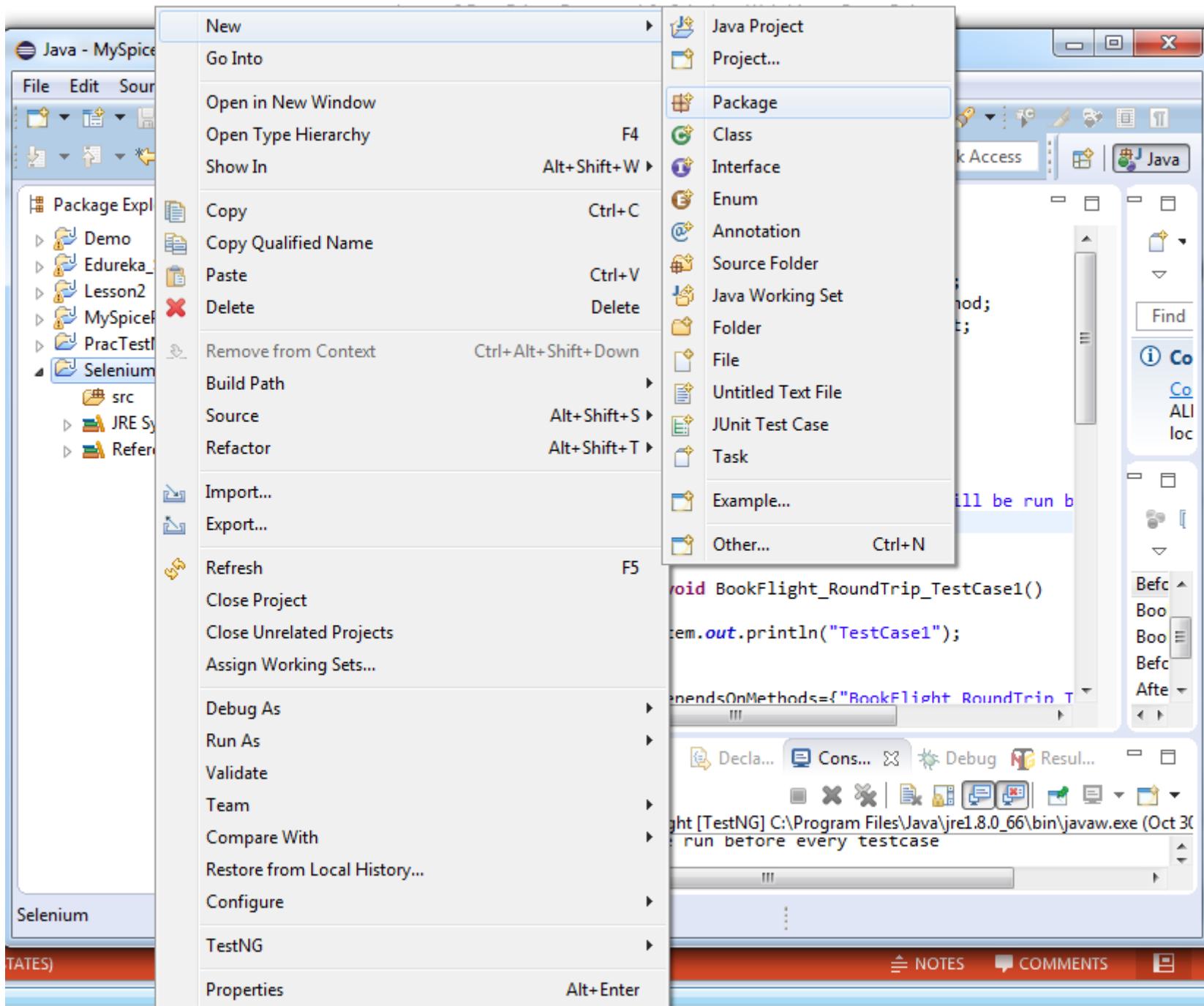
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1	edureka	edureka123																		
2	mercury	mercury																		
3	Admin	admin123																		
4	Admin	admin124																		
5	Admin	admin125																		
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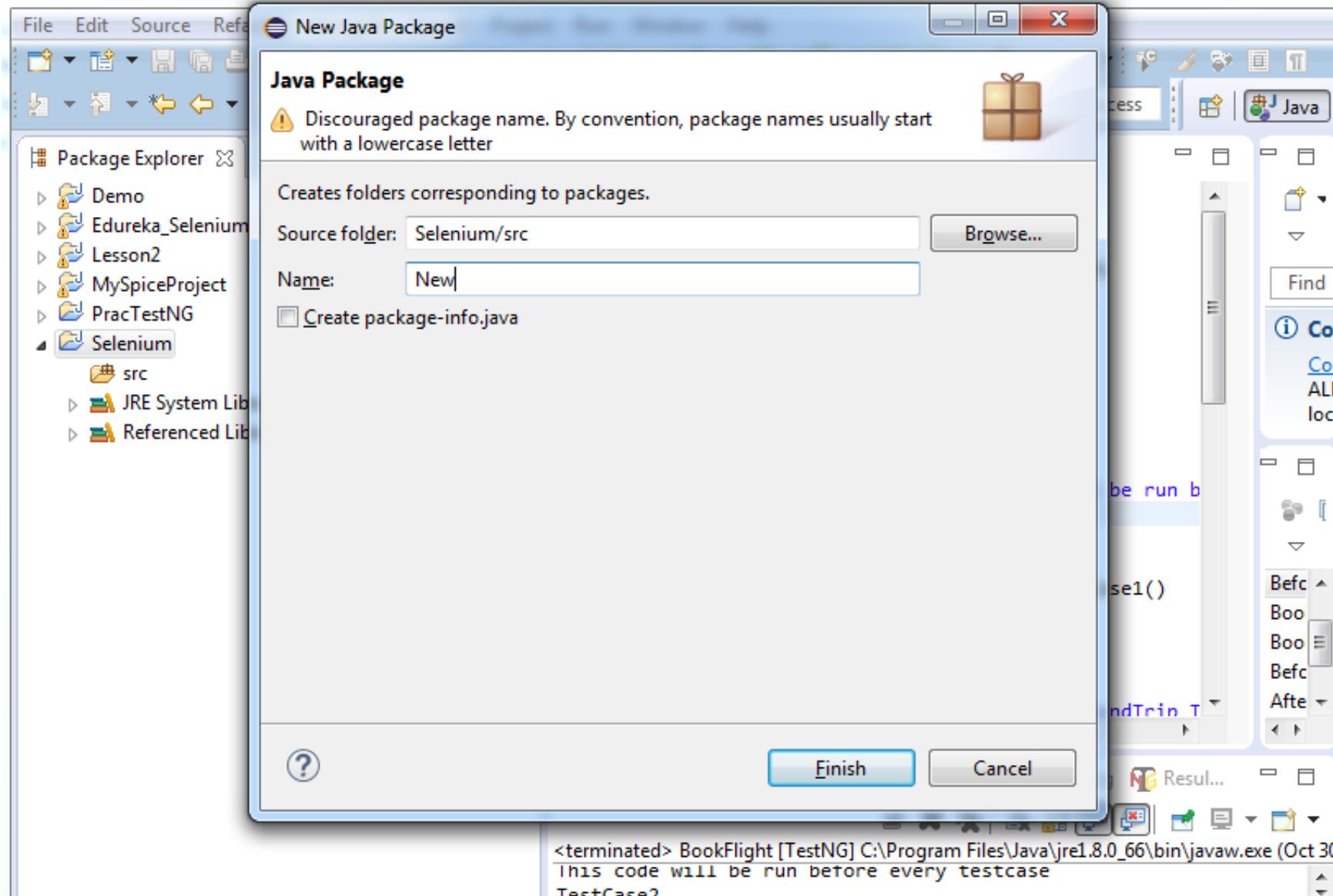
- Create an Excel file on disk
- File name: **LoginCredentials.xlsx**
- Type **username + password** on Sheet1

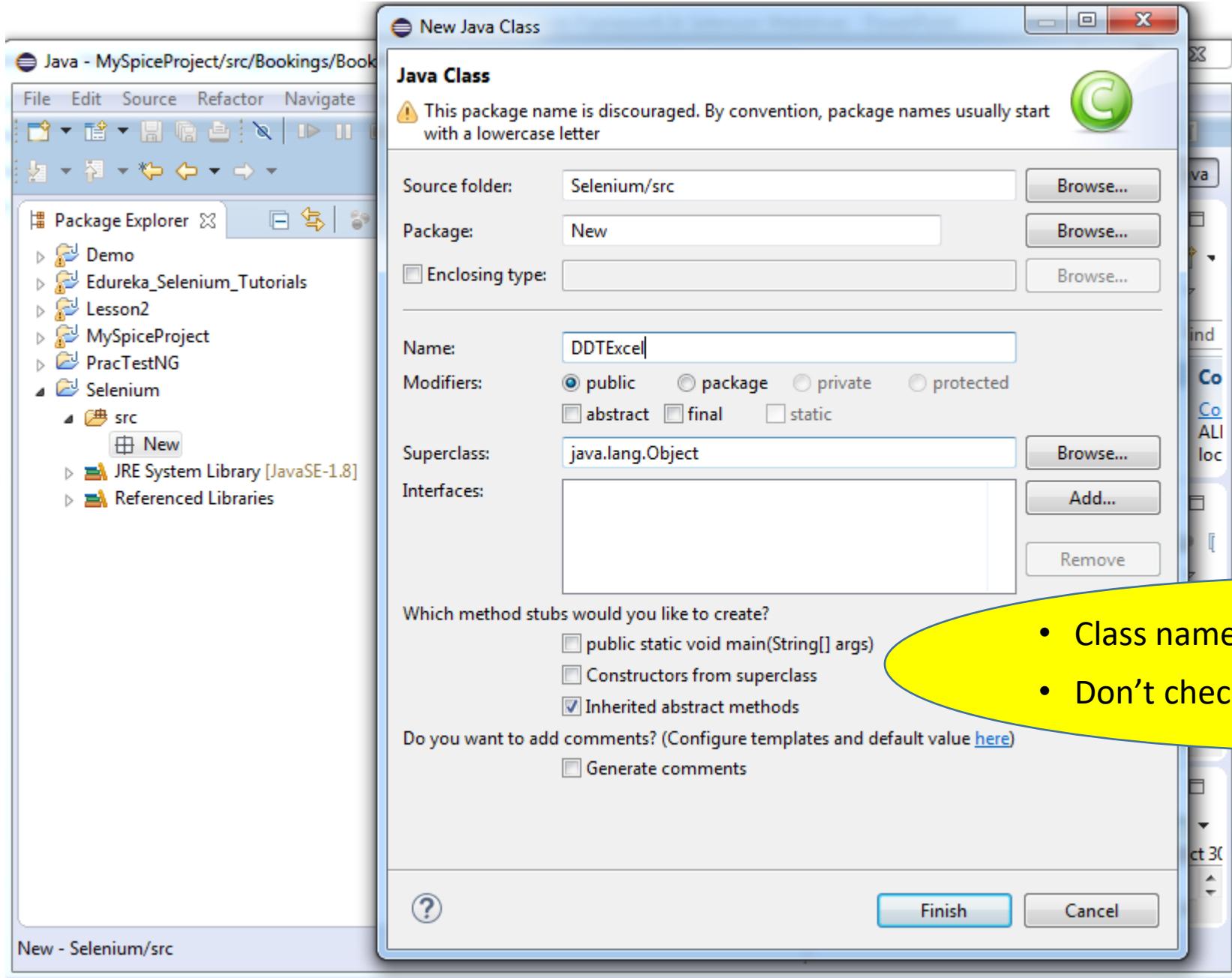


Create package and Java classes

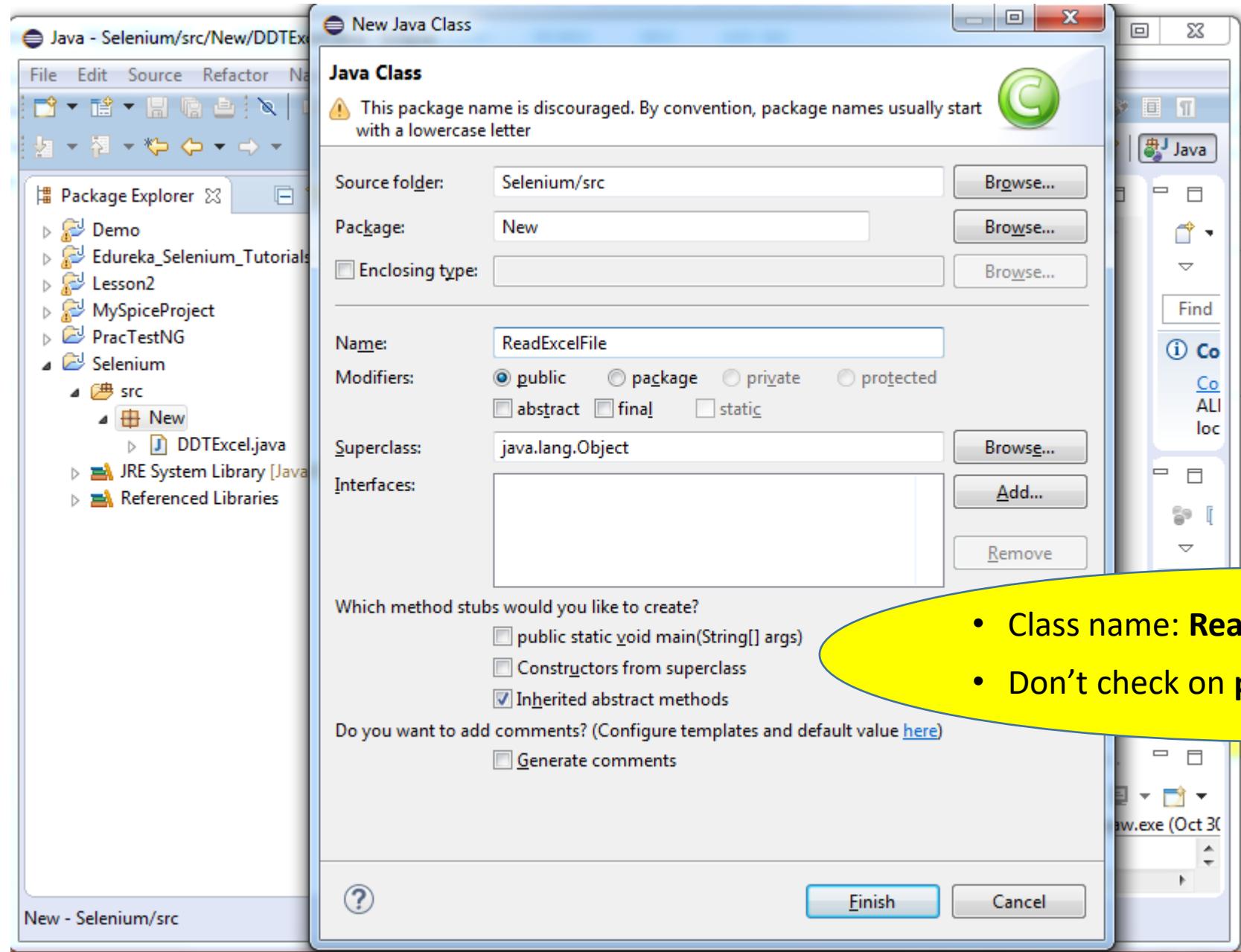
- In Selenium project, create:
 - Package: **New**
 - In the New package , create 2 Java classes:
 - **DDTExcel.java**
 - **ReadExcelFile.java**



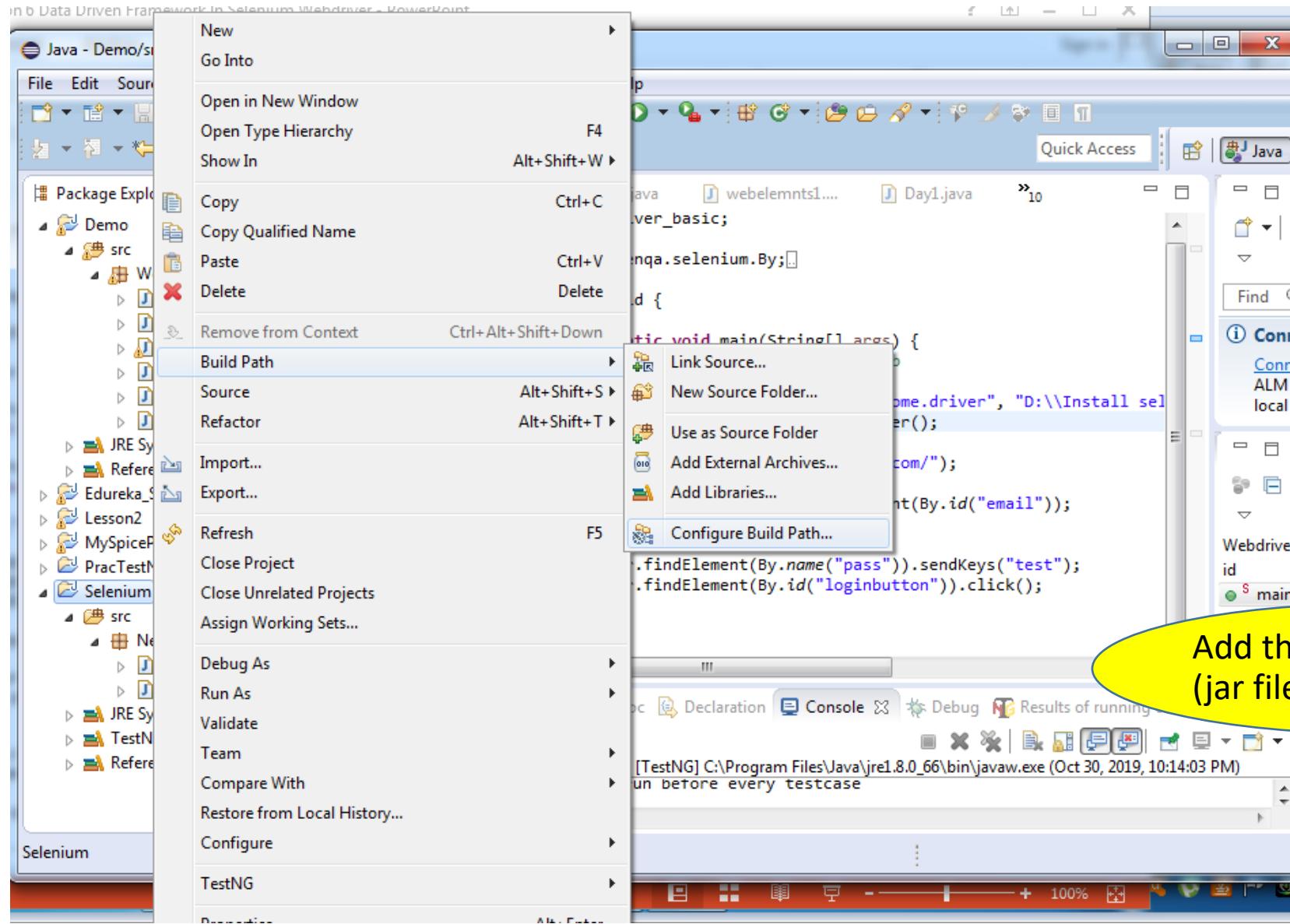




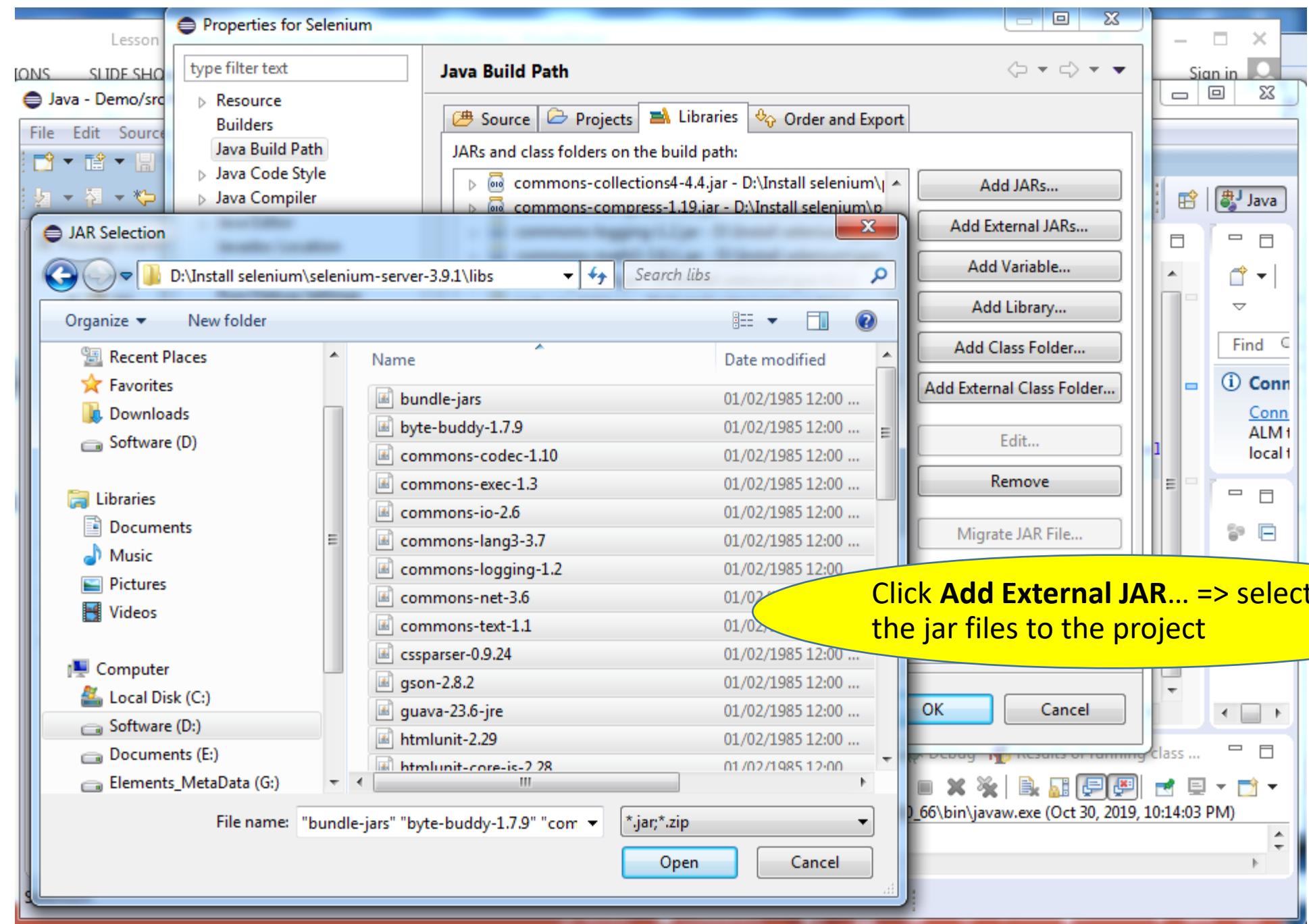
- Class name: **DDTExcel**
- Don't check on **public static void main()**



- Class name: **ReadExcelFile**
- Don't check on **public static void main()**

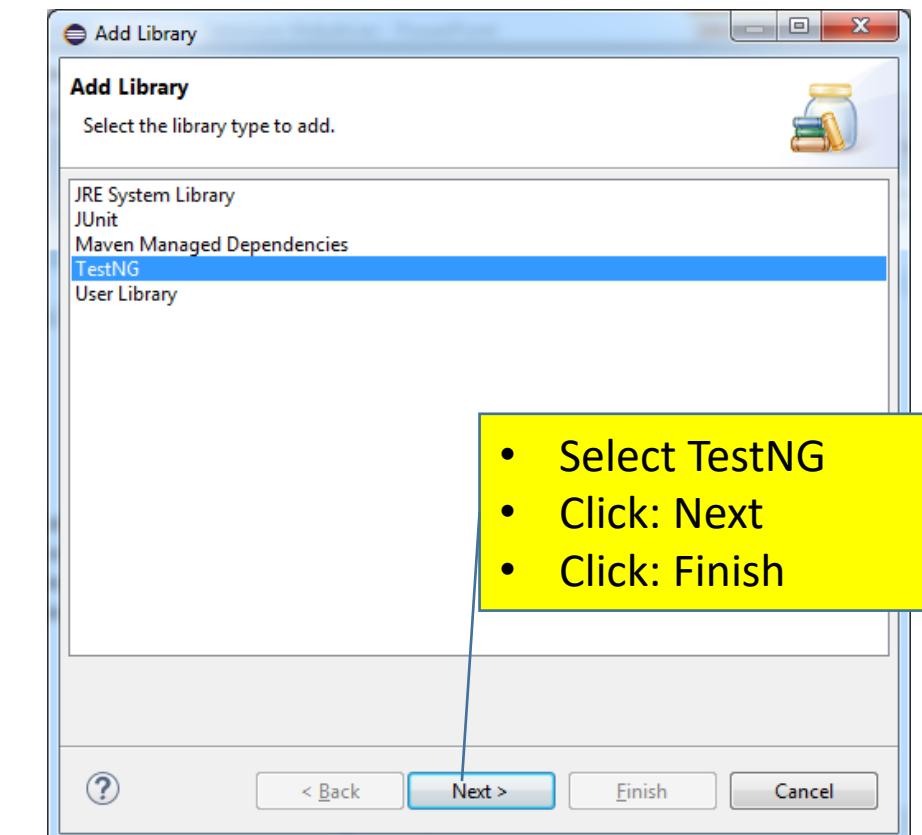


Add the Selenium library (jar files) to the project

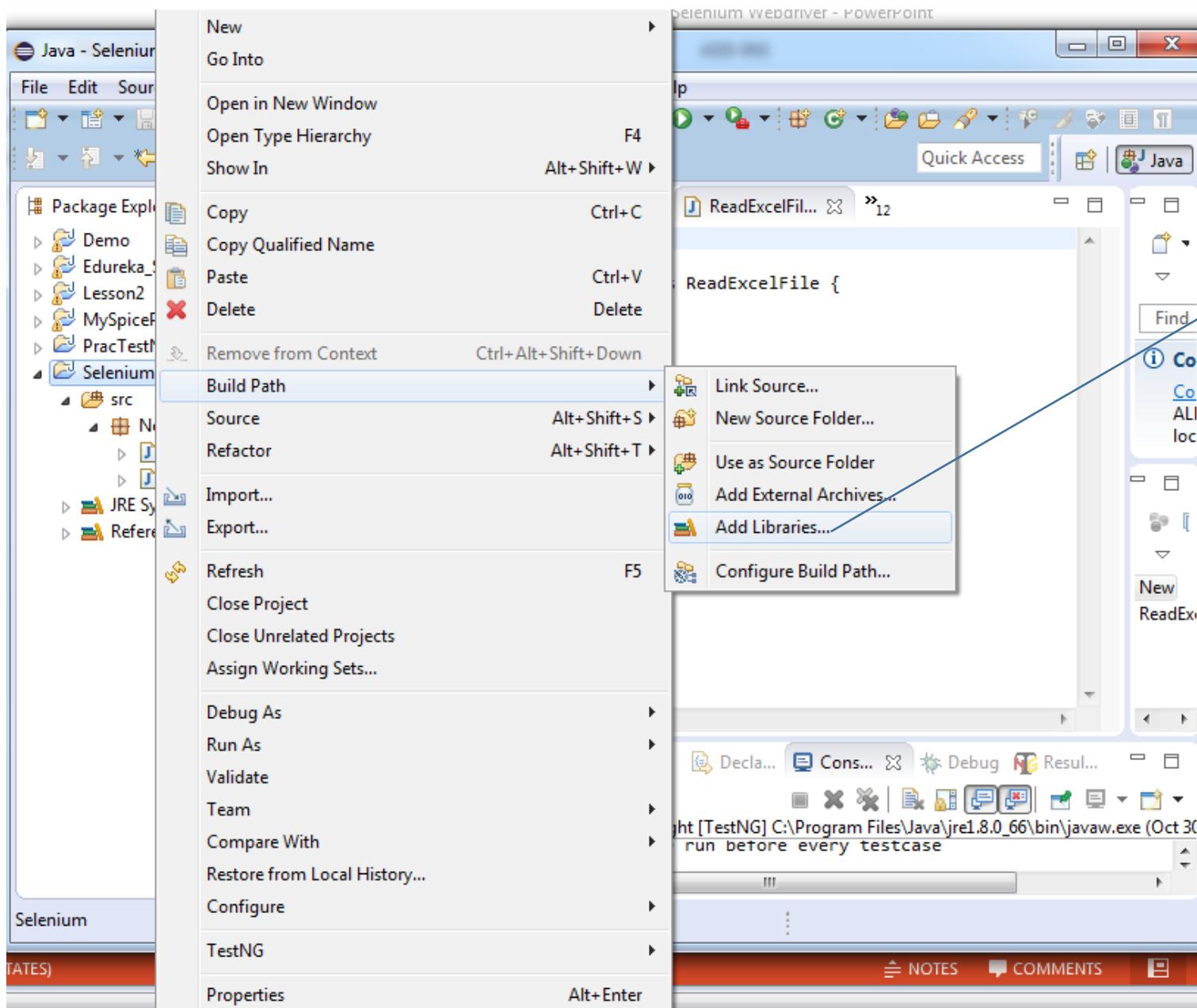


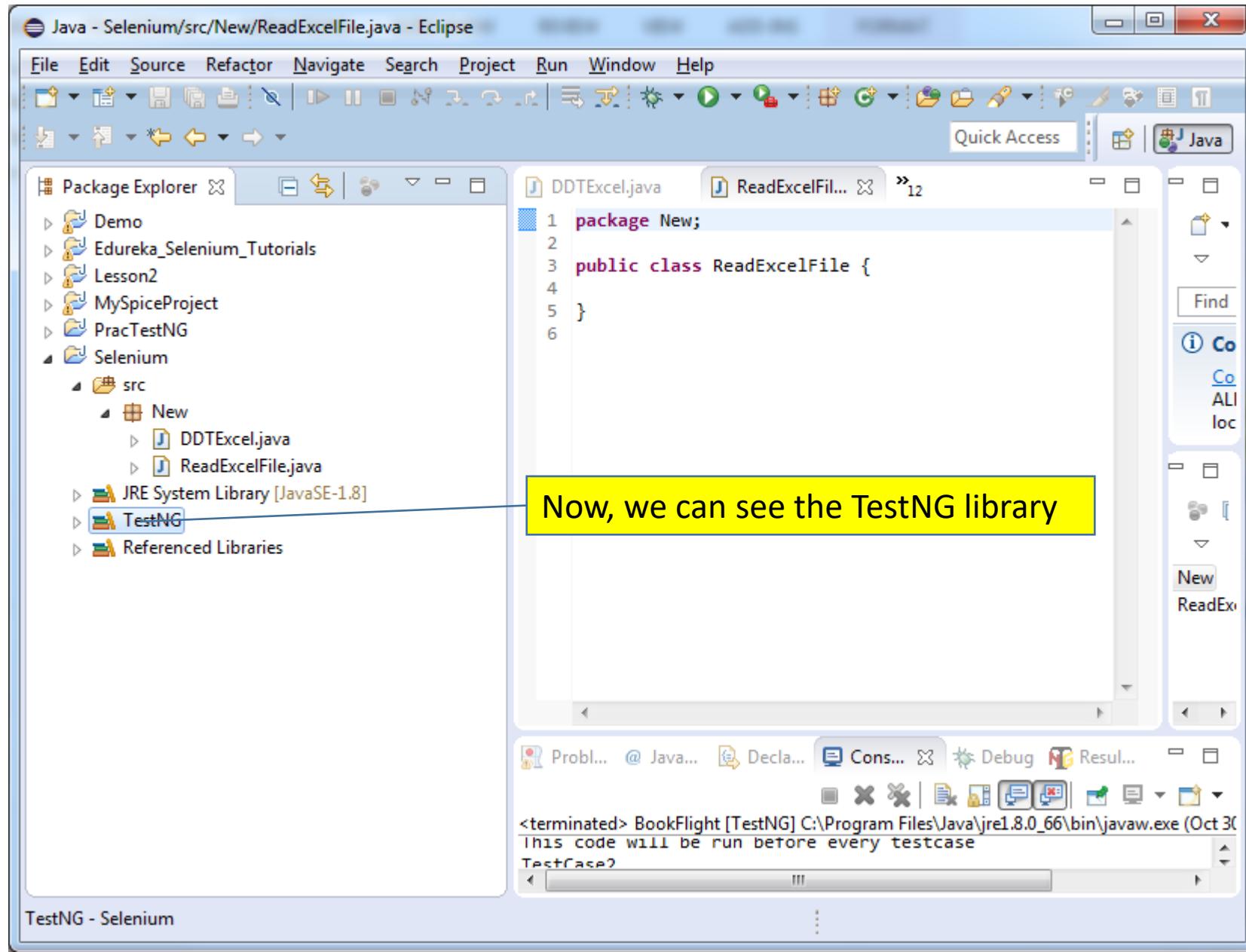
Add the TestNG library to the project

- Right click on the Selenium project
- Build Path => Add Libraries...



- Select TestNG
- Click: Next
- Click: Finish





Java - Selenium/src/New/DDTExcel.java - Eclipse

File Edit Source Refactor Navigate Search Project Run Window Help

Quick Access Java EE Java

Package Explorer DDTEExcel.java ReadExcelFile.java

```
1 package New;
2 import org.openqa.selenium.By;
3
4 public class DDTEExcel {
5     // TODO Auto-generated method stub
6     WebDriver driver;
7     protected static String result;
8
9     @TestdataProvider="testdata"
10    public void DemoProject(String username, String password)
11    {
12        try {
13            System.setProperty("webdriver.chrome.driver", "D:\\Install selenium\\chromedriver_win32\\chromedriver.exe");
14            driver = new ChromeDriver();
15            driver.get("http://newtours.demoaut.com");
16
17            driver.findElement(By.name("userName")).sendKeys(username);
18            driver.findElement(By.name("password")).sendKeys(password);
19            driver.findElement(By.name("submit")).click();
20
21            Thread.sleep(5000);
22
23            Assert.assertTrue(driver.getTitle().matches("Login: Mercury Tours"), "Invalid credentials");
24            System.out.println("Login successful");
25        } catch (InterruptedException e) {
26            // TODO Auto-generated catch block
27            e.printStackTrace();
28        }
29    }
30}
```

Problems @ Javadoc Declaration Console Results of running class DDTEExcel

<terminated> DDTEExcel [TestNG] C:\Program Files\Java\jdk1.8.0_311\bin\javaw.exe (Nov 3, 2021, 5:25:31 PM)

at org.testng.TestNG.run (TestNG.java:1115)

Writable Smart Insert 13:36

Java - Selenium/src/New/DDTExcel.java - Eclipse

File Edit Source Refactor Navigate Search Project Run Window Help

Quick Access Java EE Java

Package Explorer X DDTExcel.java ReadExcelFile.java

```
// TODO Auto-generated catch block
e.printStackTrace();
}

}
}

@AfterMethod
void ProgramTermination()
{
    driver.quit();
}

@DataProvider(name="testdata")
public Object[][] TestDataFeed()
{
    New.ReadExcelFile config = new New.ReadExcelFile("D:\\TestProjects\\newtours\\LoginCredentials.xlsx");

    int rows = config.getRowCount(0);

    Object[][] credentials = new Object[rows][2];

    for(int i=0; i<rows; i++)
    {
        credentials[i][0] = config.getData(0, i, 0);
        credentials[i][1] = config.getData(0, i, 1);
    }
    return credentials;
}
}
```

Problems @ Javadoc Declaration Console X Results of running class DDTExcel

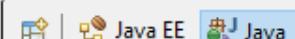
<terminated> DDTExcel [TestNG] C:\Program Files\Java\jdk1.8.0_311\bin\javaw.exe (Nov 3, 2021, 5:25:31 PM)

at org.testng.TestNG.run (TestNG.java:1115)

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Quick Access



Package Explorer X

- > Edureka_Selenium_Tutorials
- > MySpiceProject
- > PracTestNG
- < Selenium
 - < src
 - < New
 - > DDTExcel.java
 - > ReadExcelFile.java
- > JRE System Library [JavaSE-1.8]
- > TestNG
- > Referenced Libraries

DDTExcel.java

ReadExcelFile.java X

```
1 package New;
2
3 import java.io.File;
4 import java.io.FileInputStream;
5 import java.io.FileNotFoundException;
6 import java.io.IOException;
7
8 import org.apache.poi.xssf.usermodel.XSSFSheet;
9 import org.apache.poi.xssf.usermodel.XSSFWorkbook;
10
11 public class ReadExcelFile {
12
13     XSSSSFWorkbook wb;
14     XSSFSheet sheet;
15
16     public ReadExcelFile(String excelPath)
17     {
18         try {
19             File src = new File(excelPath);
20             FileInputStream fis = new FileInputStream(src);
21             wb = new XSSSSFWorkbook(fis);
22         } catch (FileNotFoundException e) {
23             // TODO Auto-generated catch block
24             e.printStackTrace();
25         } catch (IOException e) {
26             // TODO Auto-generated catch block
27             e.printStackTrace();
28         }
29     }
30 }
```

Problems @ Javadoc Declaration Console X Results of running class DDTExcel

<terminated> DDTExcel [TestNG] C:\Program Files\Java\jdk1.8.0_311\bin\javaw.exe (Nov 3, 2021, 5:25:31 PM)

at org.testng.TestNG.run (TestNG.java:1115)



Quick Access



Package Explorer X

- > Edureka_Selenium_Tutorials
- > MySpiceProject
- > PracTestNG
- < Selenium
 - src
 - New
 - > DDTExcel.java
 - > ReadExcelFile.java
- > JRE System Library [JavaSE-1.8]
- > TestNG
- > Referenced Libraries

```
18     try {
19         File src = new File(excelPath);
20         FileInputStream fis = new FileInputStream(src);
21         wb = new XSSFWorkbook(fis);
22     } catch (FileNotFoundException e) {
23         // TODO Auto-generated catch block
24         e.printStackTrace();
25     } catch (IOException e) {
26         // TODO Auto-generated catch block
27         e.printStackTrace();
28     }
29
30
31     public String getData(int sheetnumber, int row, int column)
32     {
33         sheet = wb.getSheetAt(sheetnumber);
34         String data = sheet.getRow(row).getCell(column).getStringCellValue();
35         return data;
36
37     }
38
39     public int getRowCount(int sheetIndex)
40     {
41         int row = wb.getSheetAt(sheetIndex).getLastRowNum();
42         row = row +1;
43         return row;
44     }
45 }
```

Problems @ Javadoc Declaration Console X Results of running class DDTExcel

<terminated> DDTExcel [TestNG] C:\Program Files\Java\jdk1.8.0_311\bin\javaw.exe (Nov 3, 2021, 5:25:31 PM)

at org.testng.TestNG.run (TestNG.java:1115)

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Smart Insert

12:1



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16																				
17		Index = 1																		
18				Index = 2																
19						Index = 3														
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Sheet1

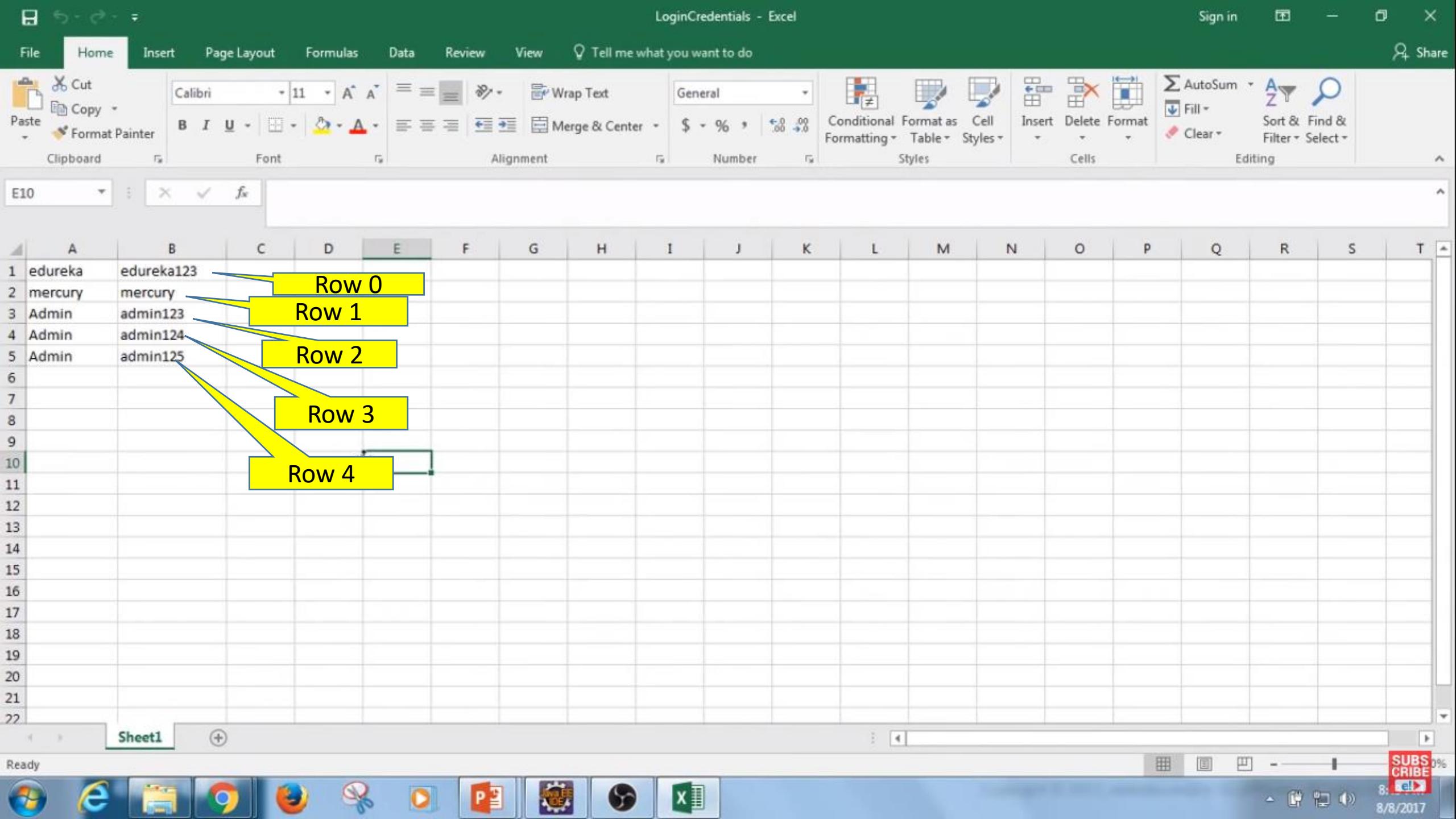
Sheet2

Sheet3

Sheet4



SUBSCRIBE



DDTExcel.java

```

1 package New;
2
3 import org.openqa.selenium.By;
4 import org.openqa.selenium.WebDriver;
5 import org.openqa.selenium.chrome.ChromeDriver;
6 import org.testng.Assert;
7 import org.testng.annotations.AfterMethod;
8 import org.testng.annotations.DataProvider;
9 import org.testng.annotations.Test;
10
11 public class DDTExcel {
12
13     // TODO Auto-generated method stub
14
15     WebDriver driver;
16
17     protected static String result;
18
19     @Test (dataProvider="testdata")
20     public void DemoProject(String username, String password)
21     {
22
23         try {
24             System.setProperty("webdriver.chrome.driver", "D:\\Install selenium\\chromedriver_win32\\chromedriver.exe");
25             driver = new ChromeDriver();
26             driver.get("http://newtours.demoaut.com");
27             driver.findElement(By.name("userName")).sendKeys(username);
28             driver.findElement(By.name("password")).sendKeys(password);
29             driver.findElement(By.name("login")).click();
30             Assert.assertEquals(driver.getTitle(), "Welcome:  Your All-in-one Solution");
31         } catch (Exception e) {
32             e.printStackTrace();
33         }
34     }
35 }

```

ReadExcelFile.java

Important note:
Selenium 3.9.1 can create the
following error:

[Utils] [ERROR] [Error]
java.lang.NoSuchMethodError:
org.apache.commons.io.IOUtils.byteArray(I) [B

Problems @ Javadoc Declaration Console Results of running class DDTExcel

<terminated> DDTExcel [TestNG] C:\Program Files\Java\jdk1.8.0_221\bin\javaw.exe (Apr 13, 2023, 10:59:09 AM)

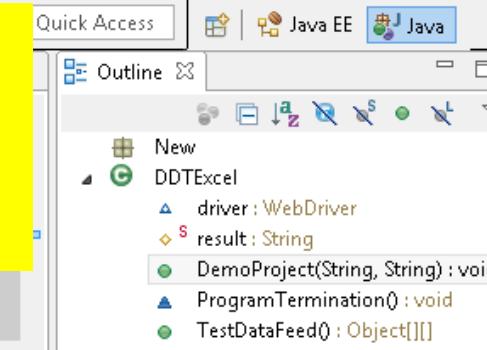
ERROR StatusLogger Log4j2 could not find a logging implementation. Please add log4j-core to the classpath. Using SimpleLogger to log to the console...

[Utils] [ERROR] [Error] java.lang.NoSuchMethodError: org.apache.commons.io.IOUtils.byteArray(I) [B

```

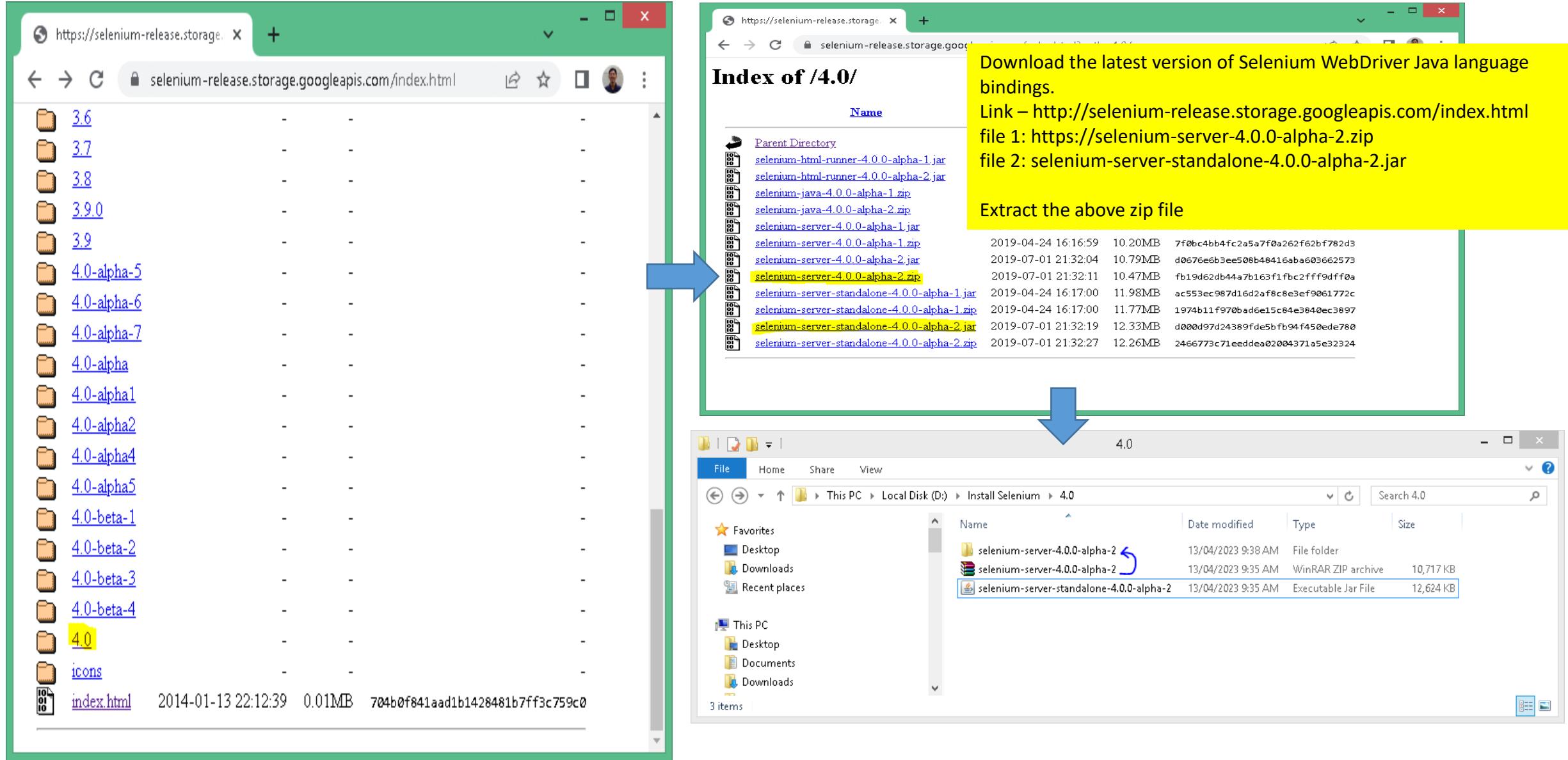
at org.apache.commons.io.output.AbstractByteArrayOutputStream.needNewBuffer(AbstractByteArrayOutputStream.java:104)
at org.apache.commons.io.output.UnsynchronizedByteArrayOutputStream.<init>(UnsynchronizedByteArrayOutputStream.java:51)
at org.apache.poi.util.IOUtils.peekFirstNBytes(IOUtils.java:139)
at org.apache.poi.poifs.filesystem.FileMagic.valueOf(FileMagic.java:209)
at org.apache.poi.openxml4j.opc.internal.ZipHelper.verifyZipHeader(ZipHelper.java:143)
at org.apache.poi.openxml4j.opc.internal.ZipHelper.openZipStream(ZipHelper.java:175)
at org.apache.poi.openxml4j.opc.ZipPackage.<init>(ZipPackage.java:130)
at org.apache.poi.openxml4j.opc.OPCPackage.open(OPCPackage.java:319)
at org.apache.poi.ooxml.util.PackageHelper.open(PackageHelper.java:59)
at org.apache.poi.xssf.usermodel.XSSFWorkbook.<init>(XSSFWorkbook.java:290)
at org.apache.poi.xssf.usermodel.XSSFWorkbook.<init>(XSSFWorkbook.java:286)

```



Activate Windows
Go to PC settings to activate Windows.

Solution: Use the latest version of Selenium (4.0) and POI (poi-bin-5.2.3)



Solution: Use the latest version of Selenium (4.0) and POI (poi-bin-5.2.3)

The screenshot shows the Apache POI Download Release Artifacts page. It features the Apache Software Foundation logo and the Apache POI logo. The main content area displays the "Available Downloads" section, which includes a summary of the latest release (5.2.3), download links for source code (tar.gz and zip), and binary artifacts (tar.gz and zip). The "Binary Artifacts" section provides instructions for verifying the integrity of the downloaded files using PGP and SHA2 signatures.

The screenshot shows the Apache POI Binary Artifacts page. It includes instructions for verifying file integrity using PGP or GPG. A sample verification command is shown for the file "poi-bin-3.5-FINAL-20090928.tgz". The command uses GPG to import KEYS, verify signatures, and check for unchanged files. The output of the command is displayed, showing the verification process and results.

The screenshot shows a Windows File Explorer window displaying the contents of the "poi-bin-5.2.3" folder. The folder contains various executable JAR files and other supporting files like LICENSE and NOTICE. The table below lists the contents of the folder:

Name	Date modified	Type
auxiliary	09/09/2022 2:55 PM	File folder
lib	09/09/2022 2:54 PM	File folder
ooxml-lib	09/09/2022 2:55 PM	File folder
LICENSE	02/08/2022 5:09 PM	File
NOTICE	02/08/2022 5:09 PM	File
poi-5.2.3	09/09/2022 2:52 PM	Executable Jar F
poi-examples-5.2.3	09/09/2022 2:52 PM	Executable Jar F
poi-excelant-5.2.3	09/09/2022 2:52 PM	Executable Jar F
poi-javadoc-5.2.3	09/09/2022 2:54 PM	Executable Jar F
poi-ooxml-5.2.3	09/09/2022 2:52 PM	Executable Jar F
poi-ooxml-full-5.2.3	09/09/2022 2:52 PM	Executable Jar F
poi-ooxml-lite-5.2.3	09/09/2022 2:53 PM	Executable Jar F
poi-scratchpad-5.2.3	09/09/2022 2:49 PM	Executable Jar F

Quick Access Java EE Java

Package Explor... DDTExcel.java ReadExcelFile.java

```

1 package New;
2
3 import org.openqa.selenium.By;
4 import org.openqa.selenium.WebDriver;
5 import org.openqa.selenium.chrome.ChromeDriver;
6 import org.testng.Assert;
7 import org.testng.annotations.AfterMethod;
8 import org.testng.annotations.DataProvider;
9 import org.testng.annotations.Test;
10
11 public class DDTExcel {
12     WebDriver driver;
13     String result;
14
15     @Test(dataProvider = "DDTData")
16     public void DemoProject(String username, String password) {
17         driver.get("http://demo.guru99.com/test/newtours/");
18         driver.findElement(By.name("username")).sendKeys(username);
19         driver.findElement(By.name("password")).sendKeys(password);
20         driver.findElement(By.name("submit")).click();
21         Assert.assertEquals(driver.getTitle(), "Welcome To Our Hotel Management System!");
22     }
23
24     @DataProvider(name = "DDTData")
25     public Object[][] TestDataFeed() {
26         return new Object[][] {
27             {"guru99", "guru99"}, {"testuser", "testuser"}, {"admin", "admin"} };
28     }
29
30     @AfterMethod
31     public void ProgramTermination() {
32         driver.quit();
33     }
34 }
  
```

New Go Into Open in New Window Open Type Hierarchy Show In F4 Alt+Shift+W Copy Ctrl+C Copy Qualified Name Ctrl+V Paste Ctrl+V Delete Delete Remove from Context Ctrl+Alt+Shift+Down Build Path Link Source... New Source Folder... Use as Source Folder Add External Archives... Add Libraries... Configure Build Path... F5 password)

password)

Configure Build Path...

Console Results of running class DDTExcel

Passed: 2 Failed: 3 Skipped: 0 Tests: 1/1 Methods: 5 (74427 ms)

Activate Windows Go to PC settings to activate Windows.

Selenium2 Properties Alt+Enter

Quick Access Java EE Java

Outline New DDTExcel driver : WebDriver result : String DemoProject(String, String) : void ProgramTermination() : void TestDataFeed() : Object[] []

File Edit Source Refactor Navigate Search Project Run Window Help

Quick Access Java EE Java

Package Explor... DDTExcel.java ReadExcelFile.java

```

1 package New;
2
3 import org.openqa.selenium.By;
4 import org.openqa.selenium.WebDriver;
5 import org.openqa.selenium.chrome.ChromeDriver;
6 import org.testng.Assert;
7 import org.testng.annotations.AfterMethod;
8 import org.testng.annotations.DataProvider;
9 import org.testng.annotations.Test;
10
11 public class DDTExcel {
12     WebDriver driver;
13     String result;
14
15     @Test(dataProvider = "DDTData")
16     public void DemoProject(String username, String password) {
17         driver.get("http://demo.guru99.com/test/newtours/");
18         driver.findElement(By.name("username")).sendKeys(username);
19         driver.findElement(By.name("password")).sendKeys(password);
20         driver.findElement(By.name("submit")).click();
21         Assert.assertEquals(driver.getTitle(), "Welcome To Our Hotel Management System!");
22     }
23
24     @DataProvider(name = "DDTData")
25     public Object[][] TestDataFeed() {
26         return new Object[][] {
27             {"guru99", "guru99"}, {"testuser", "testuser"}, {"admin", "admin"} };
28     }
29
30     @AfterMethod
31     public void ProgramTermination() {
32         driver.quit();
33     }
34 }
  
```

New Go Into Open in New Window Open Type Hierarchy Show In F4 Alt+Shift+W Copy Ctrl+C Copy Qualified Name Ctrl+V Paste Ctrl+V Delete Delete Remove from Context Ctrl+Alt+Shift+Down Build Path Link Source... New Source Folder... Use as Source Folder Add External Archives... Add Libraries... Configure Build Path... F5 password)

Configure Build Path...

Console Results of running class DDTExcel

Passed: 2 Failed: 3 Skipped: 0 Tests: 1/1 Methods: 5 (74427 ms)

Activate Windows Go to PC settings to activate Windows.

Selenium2 Properties Alt+Enter

Quick Access Java EE Java

Outline New DDTExcel driver : WebDriver result : String DemoProject(String, String) : void ProgramTermination() : void TestDataFeed() : Object[] []

File Edit Source Refactor Navigate Search Project Run Window

Package Explor... DDTExcel.java ReadExcelFile.java

Assertion_in_TestNG Edureka_Selenium_Tutorial Leson2 MySpiceProject MySpiceProject2 PractestNG Selenium2

src New DDTExcel.java ReadExcelFile.java JRE System Library [JavaSE-1.8] TestNG Referenced Libraries

1 package New;

2

3 import org.openqa.selenium;

4 import org.openqa.selenium.WebDriver;

5 import org.openqa.selenium.WebElement;

6 import org.testng.Assert;

7 import org.testng.annotations.Test;

8 import org.testng.annotations.Ignore;

9 import org.testng.annotations.BeforeMethod;

10

11 public class DDTExcel {

12

13 // TODO Auto-generated code stub

14

15 WebDriver driver;

16

17 protected static String

18

19

20

21

22

23

24

25

26

27 driver.get("http://newtours.demoaut.com/");

28

29 driver.findElement(By.name("fromName")).sendKeys("Rahul");

30 driver.findElement(By.name("fromCity")).sendKeys("Delhi");

31 driver.findElement(By.name("toName")).sendKeys("Mumbai");

32 driver.findElement(By.name("toCity")).sendKeys("Pune");

33 driver.findElement(By.name("airline")).click();

34 driver.findElement(By.name("passenger")).click();

35 Thread.sleep(2000);

36

37 }

Problems @ Javadoc Declaration

Search:

Properties for Selenium2

Java Build Path

Source Projects Libraries Order and Export

JARs and class folders on the build path:

- bcprov-jdk15on-1.70.jar - D:\Install Selenium\poi-bin-5.2.3\auxiliary
- bcutil-jdk15on-1.70.jar - D:\Install Selenium\poi-bin-5.2.3\auxiliary
- commons-codec-1.15.jar - D:\Install Selenium\poi-bin-5.2.3\lib
- commons-collections4-4.4.jar - D:\Install Selenium\poi-bin-5.2.3\lib
- commons-compress-1.21.jar - D:\Install Selenium\poi-bin-5.2.3\ooxml-lib
- commons-io-2.11.0.jar - D:\Install Selenium\poi-bin-5.2.3\lib
- commons-logging-1.2.jar - D:\Install Selenium\poi-bin-5.2.3\ooxml-lib
- commons-math3-3.6.1.jar - D:\Install Selenium\poi-bin-5.2.3\lib
- curvesapi-1.07.jar - D:\Install Selenium\poi-bin-5.2.3\ooxml-lib
- fontbox-2.0.26.jar - D:\Install Selenium\poi-bin-5.2.3\auxiliary
- graphics2d-0.40.jar - D:\Install Selenium\poi-bin-5.2.3\auxiliary
- jakarta.activation-2.0.1.jar - D:\Install Selenium\poi-bin-5.2.3\ooxml-lib
- jakarta.xml.bind-api-3.0.1.jar - D:\Install Selenium\poi-bin-5.2.3\ooxml-lib
- log4j-api-2.18.0.jar - D:\Install Selenium\poi-bin-5.2.3\lib
- pdfbox-2.0.26.jar - D:\Install Selenium\poi-bin-5.2.3\auxiliary
- poi-5.2.3.jar - D:\Install Selenium\poi-bin-5.2.3
- poi-examples-5.2.3.jar - D:\Install Selenium\poi-bin-5.2.3
- poi-excelant-5.2.3.jar - D:\Install Selenium\poi-bin-5.2.3
- poi-javadoc-5.2.3.jar - D:\Install Selenium\poi-bin-5.2.3
- poi-ooxml-5.2.3.jar - D:\Install Selenium\poi-bin-5.2.3
- poi-ooxml-full-5.2.3.jar - D:\Install Selenium\poi-bin-5.2.3
- poi-ooxml-lite-5.2.3.jar - D:\Install Selenium\poi-bin-5.2.3
- poi-scratchpad-5.2.3.jar - D:\Install Selenium\poi-bin-5.2.3
- selenium-server-4.0.0-alpha-2-sources.jar - D:\Install Selenium\4.0\selenium-server-4.0.0-alpha-2
- selenium-server-4.0.0-alpha-2.jar - D:\Install Selenium\4.0\selenium-server-4.0.0-alpha-2
- selenium-server-standalone-4.0.0-alpha-2.jar - D:\Install Selenium\4.0
- slf4j-api-1.7.36.jar - D:\Install Selenium\poi-bin-5.2.3\ooxml-lib
- SparseBitSet-1.2.jar - D:\Install Selenium\poi-bin-5.2.3\lib
- xml-apis-1.4.01.jar - D:\Install Selenium\poi-bin-5.2.3\auxiliary
- xml-apis-ext-1.3.04.jar - D:\Install Selenium\poi-bin-5.2.3\auxiliary
- xmlbeans-5.1.1.jar - D:\Install Selenium\poi-bin-5.2.3\ooxml-lib
- xmlgraphics-commons-2.6.jar - D:\Install Selenium\poi-bin-5.2.3\auxiliary
- xmllsec-3.0.0.jar - D:\Install Selenium\poi-bin-5.2.3\auxiliary
- JRE System Library [JavaSE-1.8]
- TestNG

Add JARs... Add External JARs... Add Variable... Add Library... Add Class Folder... Add External Class Folder... Edit... Remove Migrate JAR File...

OK Cancel

Activate Windows
Go to PC settings to activate Windows.

Windows Taskbar Icons: File Explorer, Mozilla Firefox, Google Chrome, PDF, Java EE IDE, Scissors, PC, Excel, Word.

System Tray Icons: Volume, Battery, Network, ENG, 10:44 AM, 13/04/2023.

Run the program

Java - Selenium/src/New/DDTExcel.java - Eclipse

File Edit Source Refactor Navigate Search Project Run Window Help

Run the program

Quick Access Java EE Java

Package Explorer DDTEExcel.java ReadExcelFile.java

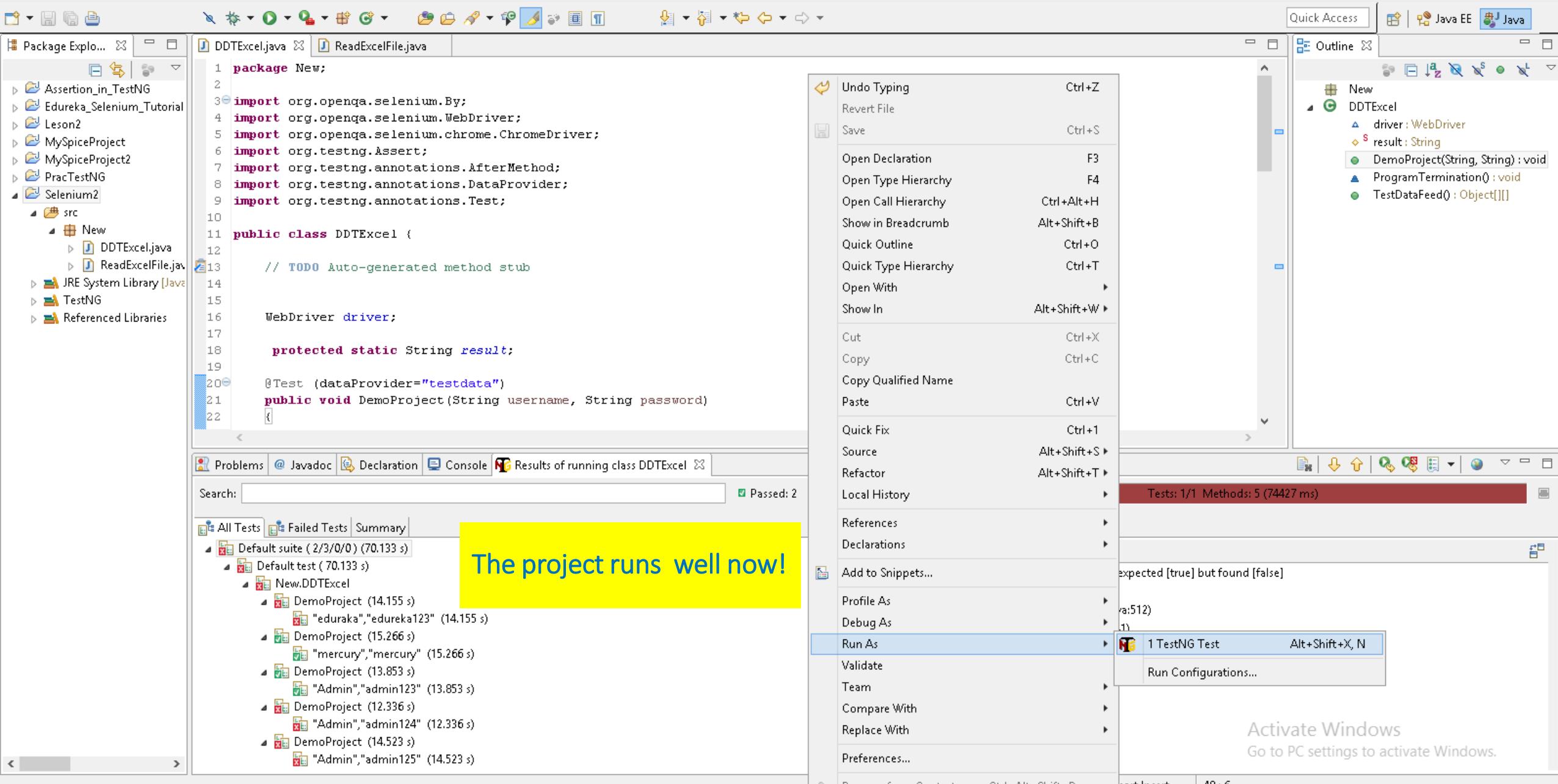
```
10 public class DDTEExcel {
11     // TODO Auto-generated method stub
12     WebDriver driver;
13     protected static String result;
14
15     @TestdataProvider="testdata222"
16     public void DemoProject(String username, String password)
17     {
18         try {
19             System.setProperty("webdriver.chrome.driver", "D:\\Install selenium\\chromedriver_win32\\chromedriver.exe");
20             driver = new ChromeDriver();
21             driver.get("http://newtours.demoaut.com");
22
23             driver.findElement(By.name("userName")).sendKeys(username);
24             driver.findElement(By.name("password")).sendKeys(password);
25             driver.findElement(By.name("submit")).click();
26
27             Thread.sleep(5000);
28
29             Assert.assertTrue(driver.getTitle().matches("Login: Mercury Tours"), "Invalid credentials");
30             System.out.println("Login successful");
31         } catch (InterruptedException e) {
32             // TODO Auto-generated catch block
33             e.printStackTrace();
34         }
35     }
36
37     @AfterMethod
38     void ProgramTermination()
39     {
```

Problems @ Javadoc Declaration Console Results of running class DDTEExcel

<terminated> DDTEExcel [TestNG] C:\Program Files\Java\jdk1.8.0_311\bin\javaw.exe (Nov 3, 2021, 5:25:31 PM)

at org.testng.TestNG.run (TestNG.java:1115)

New.DDTExcel.java - Selenium/src



Welcome: Mercury Tours

Not secure | newtours.demoaut.com

MERCURY TOURS

ARUBA

one cool summer

SIGN-ON REGISTER SUPPORT CONTACT

Aug 8, 2017

Find A Flight

Registered users can sign-in here to find the lowest fare on participating airlines.

User Name: edureka

Password:
Sign-In

Destinations

Vacations

SAVINGS!
Rent A Car
CLICK HERE

Specials

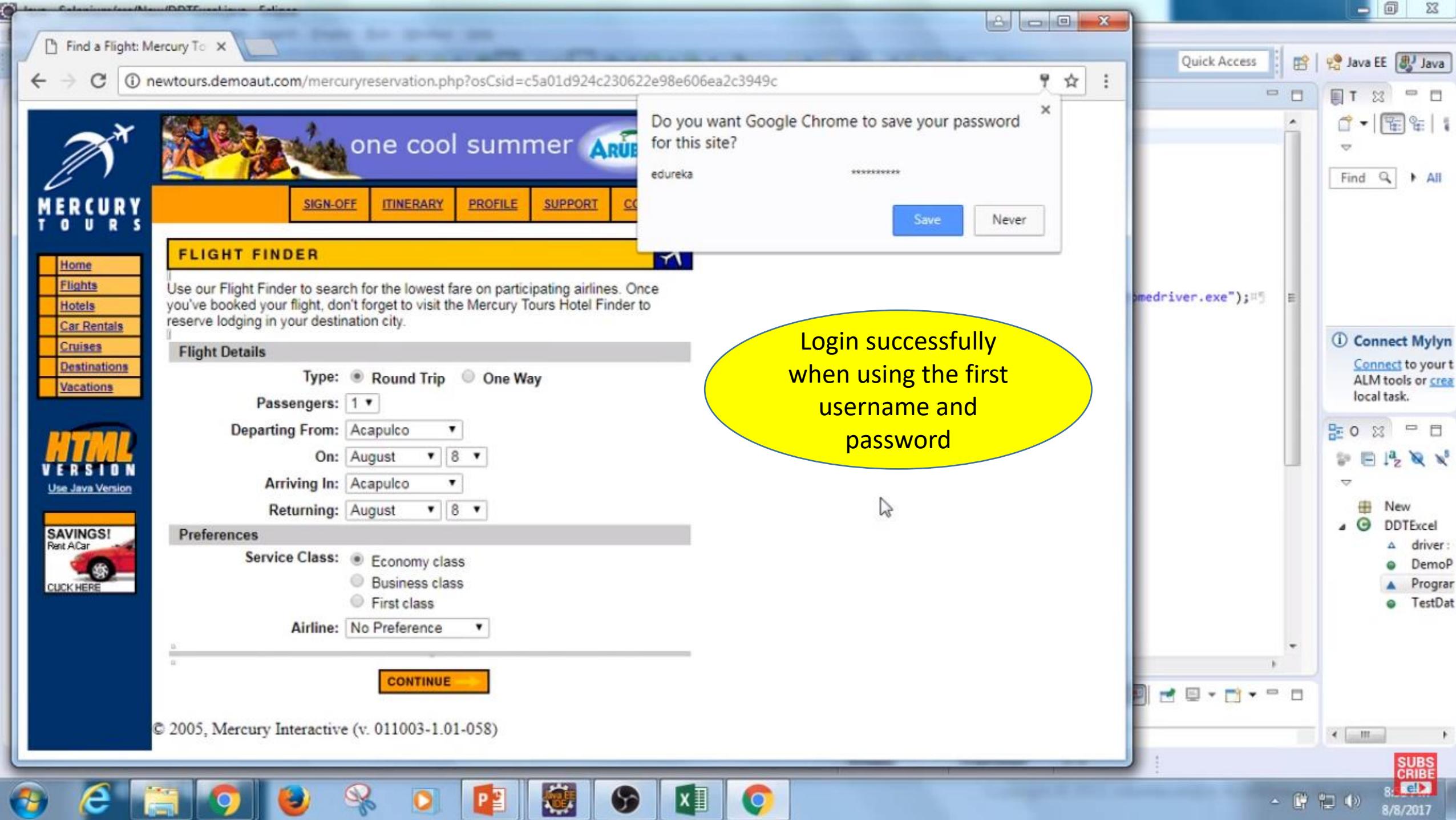
Atlanta to Las Vegas	\$398
Boston to San Francisco	\$513
Los Angeles to Chicago	\$168
New York to Chicago	\$198
Phoenix to San Francisco	\$213

Tour Tips

Business Travel @ About.com
Salon Travel

Login using the first username and password

The screenshot shows the Eclipse IDE interface. At the top, there's a toolbar with icons for file operations like New, Open, Save, and Cut/Paste. Below the toolbar is a menu bar with 'File', 'Edit', 'Search', 'Project', 'Run', 'Help', and 'Window'. The main workspace area contains code snippets related to Java and Excel. A 'Mylyn' task list is visible on the right side, titled 'Connect Mylyn', with instructions to connect to ALM tools or create local tasks. The bottom right corner has a red 'SUBS' button.



Welcome: Mercury Tours

Not secure | newtours.demoaut.com

one cool summer ARUBA

SIGN-ON REGISTER SUPPORT CONTACT

Featured Destination ARUBA

Aug 8, 2017

Find A Flight

Registered users can sign-in here to find the lowest fare on participating airlines.

User Name: mercury

Password:

Sign-In

This island is surrounded by coral reefs, offers guaranteed sunshine and is blessed with beautiful beaches. Luxury resorts have taken up residence along most of the beachfronts on the southern coast, but there are still undeveloped areas on the exposed northern coast, and much of the interior is inhabited by nothing more substantial than goats.

Destinations

Find detailed information about [your destination](#).

Vacations

Read about our [featured vacation destinations](#).

Register

[Register here](#) to join Mercury Tours!

Links

Specials

Atlanta to Las Vegas	\$398
Boston to San Francisco	\$513
Los Angeles to Chicago	\$168
New York to Chicago	\$198
Phoenix to San Francisco	\$213

Business Travel @ About.com
Salon Travel

Waiting for newtours.demoaut.com...

Quick Access Java EE Java

Find All

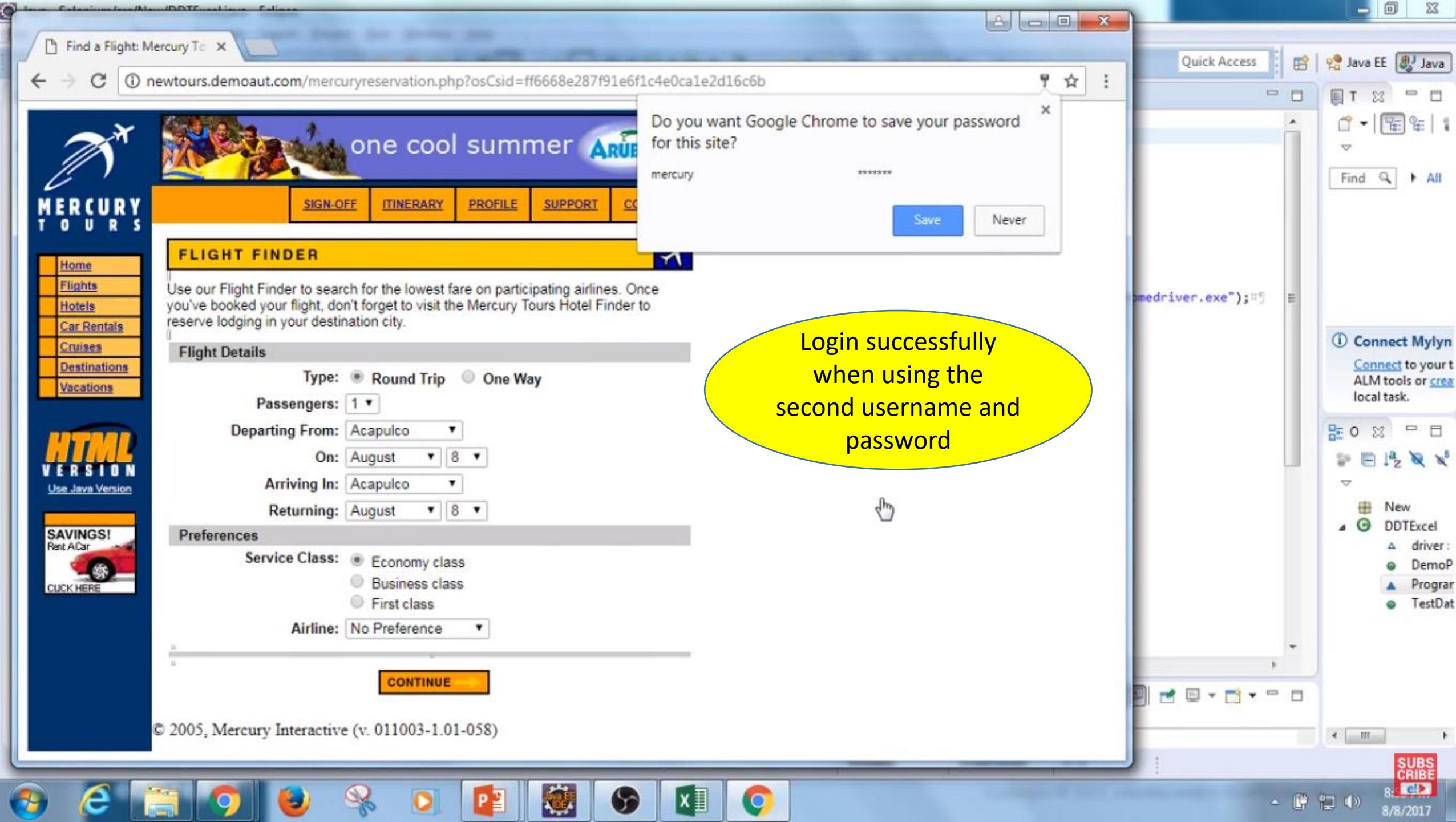
omedriver.exe");
① Connect Mylyn
Connect to your t ALM tools or crea local task.

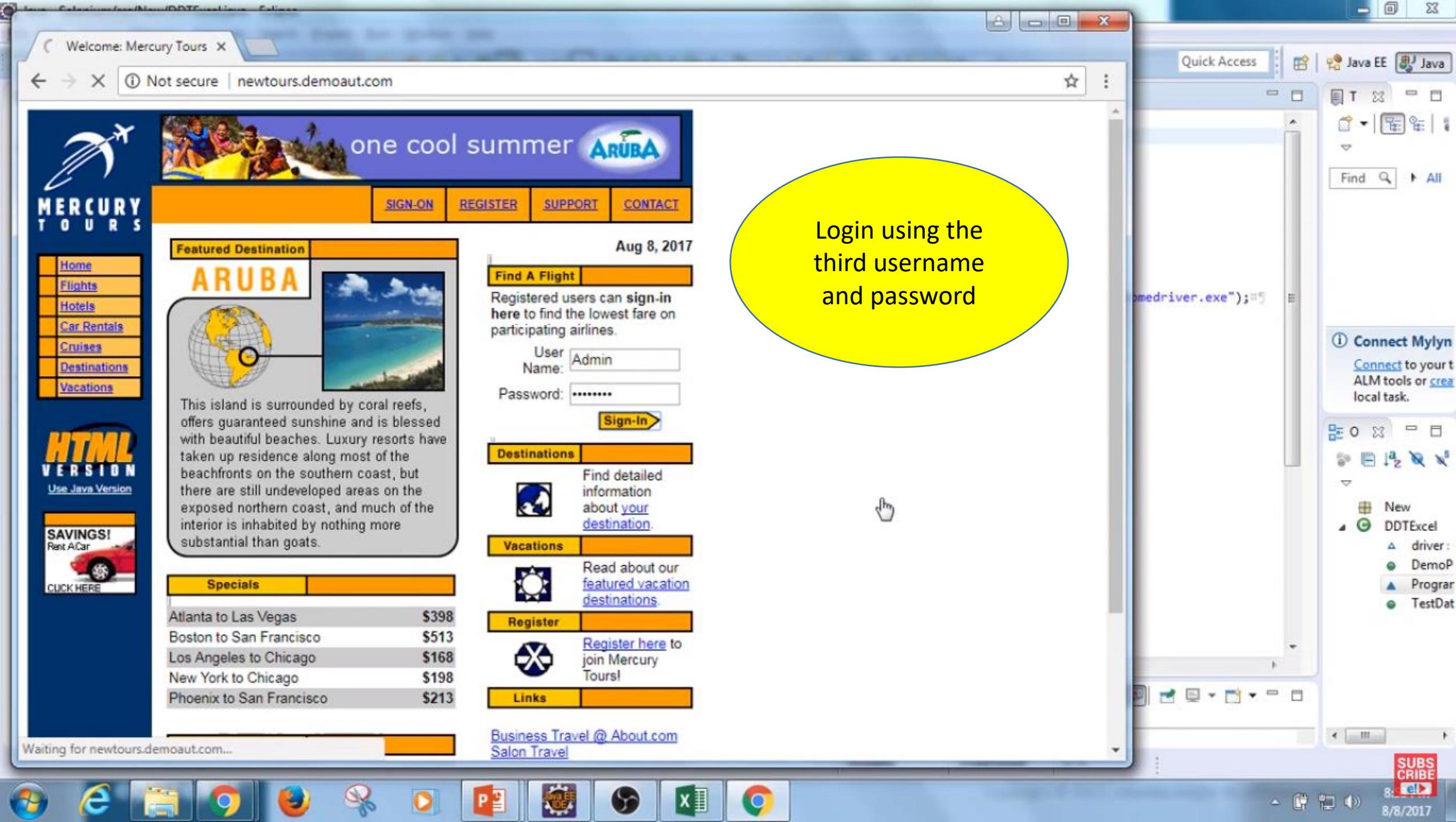
0 X □

New DDTEExcel driver : DemoP Program TestDat

SUBSCRIBE

8: 8/8/2017





The screenshot shows a web browser window displaying the 'Sign-on: Mercury Tours' page. The URL is newtours.demoaut.com/mercurysignon.php?osCsid=6a38424ee8a56fb7a61548d99749bacc. The page features a banner for 'one cool summer ARUBA'. On the left, there's a sidebar with links for Home, Flights, Hotels, Car Rentals, Cruises, Destinations, and Vacations. A 'HTML VERSION' link is also present. A yellow callout bubble highlights two bullet points:

- Login fail when using the third username and password
- It shows a different GUI

Below the callout, the page displays a welcome message and login fields for User Name and Password, with a SUBMIT button. At the bottom, it shows the copyright information: © 2005, Mercury Interactive (v. 011003-1.01-058).

On the right side of the image, there's a Java IDE interface showing code snippets and a file tree under the 'DDTExcel' project.

File Home Insert Page Layout Formulas Data Review View Tell me what you want to do

Cut Copy Format Painter Paste

Font Alignment Number Styles Cells Editing

A1 edureka

The first two testcases using valid usernames and valid passwords

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	edureka	edureka123																		
2	mercury	mercury																		
3	Admin	admin123																		
4	Admin	admin124																		
5	Admin	admin125																		
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				
17																				
18																				
19																				
20																				
21																				
22																				

Sheet1 Sheet2 Sheet3 Sheet4 + Count: 4

SUBSCRIBE

8: el 8/8/2017

File Home Insert Page Layout Formulas Data Review View Tell me what you want to do

Cut Copy Format Painter Paste

Font: Calibri 11pt, Alignment: General, Number: \$,00

Conditional Formatting, Insert, Delete, Format Cells, AutoSum, Fill, Sort & Filter, Clear

Clipboard, Font, Alignment, Number, Styles, Cells, Editing

A3 Admin

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	edureka	edureka123																		
2	mercury	mercury																		
3	Admin	admin123																		
4	Admin	admin124																		
5	Admin	admin125																		
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				
17																				
18																				
19																				
20																				
21																				
22																				

The last three test cases using invalid usernames and invalid passwords, so the login failed

Sheet1 Sheet2 Sheet3 Sheet4 +

Count: 6

SUBSCRIBE

8: el 8/8/2017

Welcome: Mercury Tours

Not secure | newtours.demoaut.com

Quick Access Java EE Java

Find All

omedriver.exe");

① Connect Mylyn
Connect to your ALM tools or create local task.

New DDTExcel driver: DemoP Program TestDat

SUBSCRIBE

8: el 8/8/2017

MERCURY TOURS

one cool summer ARUBA

SIGN-ON REGISTER SUPPORT CONTACT

Featured Destination ARUBA

Aug 8, 2017

Find A Flight

Registered users can sign-in here to find the lowest fare on participating airlines.

User Name: Admin

Password:

Sign-In

Destinations

This island is surrounded by coral reefs, offers guaranteed sunshine and is blessed with beautiful beaches. Luxury resorts have taken up residence along most of the beachfronts on the southern coast, but there are still undeveloped areas on the exposed northern coast, and much of the interior is inhabited by nothing more substantial than goats.

Vacations

Specials

Atlanta to Las Vegas \$398

Boston to San Francisco \$513

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New York to Chicago \$198

Phoenix to San Francisco \$213

Tour Tips

Business Travel @ About.com

Salon Travel

HTML VERSION Use Java Version

SAVINGS! Rent A Car

CICK HERE

Business Travel @ About.com

Salon Travel

Java - Selenium/src/New/DDTExcel.java - Eclipse

File Edit Source Refactor Navigate Search Project Run Window Help

Quick Access Java EE Java

Package Expl... JUnit

Selenium

- src
 - New
 - DDTExcel.java
 - DDTLocal.java
 - ReadExcelFile.java
- JRE System Library [JavaSE-1.8]
- Referenced Libraries
- TestNG
- test-output
- Selenium-Demo
- SeleniumProject
- seleniumtest
- SeleniumYouTubeDemo

DDTExcel.java ReadExcelFile.java

1 package New;

Console Results of running class DDTExcel

```
<terminated> DDTExcel [TestNG] C:\Program Files\Java\jre1.8.0_131\bin\javaw.exe (Aug 8, 2017, 8:57:48 PM)
    at org.testng.internal.Invoker.invokeTestMethod(Invoker.java:869)
    at org.testng.internal.Invoker.invokeTestMethods(Invoker.java:1193)
    at org.testng.internal.TestMethodWorker.invokeTestMethods(TestMethodWorker.java:126)
    at org.testng.internal.TestMethodWorker.run(TestMethodWorker.java:109)
    at org.testng.TestRunner.privateRun(TestRunner.java:744)
    at org.testng.TestRunner.run(TestRunner.java:602)
    at org.testng.SuiteRunner.runTest(SuiteRunner.java:380)
    at org.testng.SuiteRunner.runSequentially(SuiteRunner.java:375)
    at org.testng.SuiteRunner.privateRun(SuiteRunner.java:340)
    at org.testng.SuiteRunner.run(SuiteRunner.java:289)
    at org.testng.SuiteRunnerWorker.runSuite(SuiteRunnerWorker.java:52)
    at org.testng.SuiteRunnerWorker.run(SuiteRunnerWorker.java:86)
    at org.testng.TestNG.runSuitesSequentially(TestNG.java:1301)
    at org.testng.TestNG.runSuitesLocally(TestNG.java:1226)
    at org.testng.TestNG.runSuites(TestNG.java:1144)
    at org.testng.TestNG.run(TestNG.java:1115)
    at org.testng.remote.AbstractRemoteTestNG.run(AbstractRemoteTestNG.java:132)
    at org.testng.remote.RemoteTestNG.initAndRun(RemoteTestNG.java:230)
    at org.testng.remote.RemoteTestNG.main(RemoteTestNG.java:76)
```

=====

Default test

Tests run: 5, Failures: 3, Skips: 0

=====

Default suite

Total tests run: 5, Failures: 3, Skips: 0

=====

Console shows:

- Tests run: 5
- Failures: 3
- Skips: 0

Find All

① Connect Mylyn
Connect to your ALM tools or create local task.

0 New

DDTExcel

- driver : DemoP
- Program
- TestDat

SUBSCRIBE

8:11 8/8/2017

Java - Selenium/src/New/DDTExcel.java - Eclipse

File Edit Source Refactor Navigate Search Project Run Window Help

Quick Access Java EE Java

Package Expl... JUnit

Selenium

- src
- New
- DDTExcel.java
- DDTLocal.java
- ReadExcelFile.java

JRE System Library [JavaSE-1.8]

Referenced Libraries

TestNG

test-output

Selenium-Demo

SeleniumProject

seleniumtest

SeleniumYouTubeDemo

DDTExcel.java

```
1 package New;
```

Console Results of running class DDTExcel

```
<terminated> DDTExcel [TestNG] C:\Program Files\Java\jre1.8.0_131\bin\javaw.exe (Aug 8, 2017, 8:57:48 PM)
Starting ChromeDriver 2.27.440174 (e97a722caafc2d3a8b807ee115bfb307f7d2cf9) on port 34460
Only local connections are allowed.
log4j:WARN No appenders could be found for logger (org.apache.http.client.protocol.RequestAddCookies).
log4j:WARN Please initialize the log4j system properly.
log4j:WARN See http://logging.apache.org/log4j/1.2/faq.html#noconfig for more info.
Aug 08, 2017 8:57:53 PM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: OSS
Login successful
Starting ChromeDriver 2.27.440174 (e97a722caafc2d3a8b807ee115bfb307f7d2cf9) on port 11679
Only local connections are allowed.
Aug 08, 2017 8:58:07 PM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: OSS
Login successful
Starting ChromeDriver 2.27.440174 (e97a722caafc2d3a8b807ee115bfb307f7d2cf9) on port 25947
Only local connections are allowed.
Aug 08, 2017 8:58:22 PM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: OSS
Starting ChromeDriver 2.27.440174 (e97a722caafc2d3a8b807ee115bfb307f7d2cf9) on port 33295
Only local connections are allowed.
Aug 08, 2017 8:58:34 PM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: OSS
Starting ChromeDriver 2.27.440174 (e97a722caafc2d3a8b807ee115bfb307f7d2cf9) on port 10615
Only local connections are allowed.
Aug 08, 2017 8:58:47 PM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: OSS
PASSED: DemoProject("edureka", "edureka123")
PASSED: DemoProject("mercury", "mercury")
FAILED: DemoProject("Admin", "admin123")
java.lang.AssertionError: Invalid credentials expected [true] but found [false]
    at org.testng.Assert.fail(Assert.java:93)
    at org.testng.Assert.failNotEquals(Assert.java:512)
    at org.testng.Assert.assertTrue(Assert.java:41)
    at New.DDTExcel.DemnProject(DDTExcel.java:28)
```

Console also shows: 2 logins successful

The first fail

Find All

① Connect Mylyn
Connect to your ALM tools or create local task.

0 X

New

DDTExcel

- driver :
- DemoP
- Program
- TestDat

SUBSCRIBE

8: el 8/8/2017

Java - Selenium/src/New/DDTExcel.java - Eclipse

File Edit Source Refactor Navigate Search Project Run Window Help

Quick Access Java EE Java

Package Expl... JUnit

Selenium

- src
 - New
 - DDTExcel.java
 - DDTLocal.java
 - ReadExcelFile.java
- JRE System Library [JavaSE-1.8]
- Referenced Libraries
- TestNG
- test-output
- Selenium-Demo
- SeleniumProject
- seleniumtest
- SeleniumYouTubeDemo

DDTExcel.java ReadExcelFile.java

1 package New;

Console Results of running class DDTExcel

<terminated> DDTExcel [TestNG] C:\Program Files\Java\jre1.8.0_131\bin\javaw.exe (Aug 8, 2017, 8:57:48 PM)

```
at org.testng.TestNG.run(TestNG.java:1115)
at org.testng.remote.AbstractRemoteTestNG.run(AbstractRemoteTestNG.java:132)
at org.testng.remote.RemoteTestNG.initAndRun(RemoteTestNG.java:230)
at org.testng.remote.RemoteTestNG.main(RemoteTestNG.java:76)

FAILED: DemoProject("Admin", "admin124")
java.lang.AssertionError: Invalid credentials expected [true] but found [false]
at org.testng.Assert.fail(Assert.java:93)
at org.testng.Assert.failNotEquals(Assert.java:512)
at org.testng.Assert.assertTrue(Assert.java:41)
at New.DDTExcel.DemoProject(DDTExcel.java:28)
at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
at sun.reflect.NativeMethodAccessorImpl.invoke(Unknown Source)
at sun.reflect.DelegatingMethodAccessorImpl.invoke(Unknown Source)
at java.lang.reflect.Method.invoke(Unknown Source)
at org.testng.internal.MethodInvocationHelper.invokeMethod(MethodInvocationHelper.java:108)
at org.testng.internal.Invoker.invokeMethod(Invoker.java:661)
at org.testng.internal.Invoker.invokeTestMethod(Invoker.java:869)
at org.testng.internal.Invoker.invokeTestMethods(Invoker.java:1193)
at org.testng.internal.TestMethodWorker.invokeTestMethods(TestMethodWorker.java:126)
at org.testng.internal.TestMethodWorker.run(TestMethodWorker.java:109)
at org.testng.TestRunner.privateRun(TestRunner.java:744)
at org.testng.TestRunner.run(TestRunner.java:602)
at org.testng.SuiteRunner.runTest(SuiteRunner.java:380)
at org.testng.SuiteRunner.runSequentially(SuiteRunner.java:375)
at org.testng.SuiteRunner.privateRun(SuiteRunner.java:340)
at org.testng.SuiteRunner.run(SuiteRunner.java:289)
at org.testng.SuiteRunnerWorker.runSuite(SuiteRunnerWorker.java:52)
at org.testng.SuiteRunnerWorker.run(SuiteRunnerWorker.java:86)
at org.testng.TestNG.runSuitesSequentially(TestNG.java:1301)
at org.testng.TestNG.runSuitesLocally(TestNG.java:1226)
at org.testng.TestNG.runSuites(TestNG.java:1144)
at org.testng.TestNG.run(TestNG.java:1115)
```

The next fail

① Connect Mylyn
Connect to your ALM tools or create local task.

0 New DDTExcel driver: DemoP Program TestDat

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8: el 8/8/2017

Java - Selenium/src/New/DDTExcel.java - Eclipse

File Edit Source Refactor Navigate Search Project Run Window Help

Quick Access Java EE Java

Package Expl... JUnit ReadExcelFile.java

Selenium

- src
 - New
 - DDTExcel.java
 - DDTLocal.java
 - ReadExcelFile.java
- JRE System Library [JavaSE-1.8]
- Referenced Libraries
- TestNG
- test-output
- Selenium-Demo
- SeleniumProject
- seleniumtest
- SeleniumYouTubeDemo

Console Results of running class DDTExcel

```
<terminated> DDTExcel [TestNG] C:\Program Files\Java\jre1.8.0_131\bin\javaw.exe (Aug 8, 2017, 8:57:48 PM)
    at org.testng.TestNG.runSuitesLocally(TestNG.java:1226)
    at org.testng.TestNG.runSuites(TestNG.java:1144)
    at org.testng.TestNG.run(TestNG.java:1115)
    at org.testng.remote.AbstractRemoteTestNG.run(AbstractRemoteTestNG.java:132)
    at org.testng.remote.RemoteTestNG.initAndRun(RemoteTestNG.java:230)
    at org.testng.remote.RemoteTestNG.main(RemoteTestNG.java:76)

FAILED: DemoProject("Admin", "admin125")
java.lang.AssertionError: Invalid credentials expected [true] but found [false]
    at org.testng.Assert.fail(Assert.java:93)
    at org.testng.Assert.failNotEquals(Assert.java:512)
    at org.testng.Assert.assertTrue(Assert.java:41)
    at New.DDTExcel.DemoProject(DDTExcel.java:28)
    at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
    at sun.reflect.NativeMethodAccessorImpl.invoke(Unknown Source)
    at sun.reflect.DelegatingMethodAccessorImpl.invoke(Unknown Source)
    at java.lang.reflect.Method.invoke(Unknown Source)
    at org.testng.internal.MethodInvocationHelper.invokeMethod(MethodInvocationHelper.java:108)
    at org.testng.internal.Invoker.invokeMethod(Invoker.java:661)
    at org.testng.internal.Invoker.invokeTestMethod(Invoker.java:869)
    at org.testng.internal.Invoker.invokeTestMethods(Invoker.java:1193)
    at org.testng.internal.TestMethodWorker.invokeTestMethods(TestMethodWorker.java:126)
    at org.testng.internal.TestMethodWorker.run(TestMethodWorker.java:109)
    at org.testng.TestRunner.privateRun(TestRunner.java:744)
    at org.testng.TestRunner.run(TestRunner.java:602)
    at org.testng.SuiteRunner.runTest(SuiteRunner.java:380)
    at org.testng.SuiteRunner.runSequentially(SuiteRunner.java:375)
    at org.testng.SuiteRunner.privateRun(SuiteRunner.java:340)
    at org.testng.SuiteRunner.run(SuiteRunner.java:289)
    at org.testng.SuiteRunnerWorker.runSuite(SuiteRunnerWorker.java:52)
    at org.testng.SuiteRunnerWorker.run(SuiteRunnerWorker.java:86)
    at org.testng.TestNG.runSuitesSequentially(TestNG.java:1301)
    at org.testng.TestNG.runSuitesSequentially(TestNG.java:1226)
```

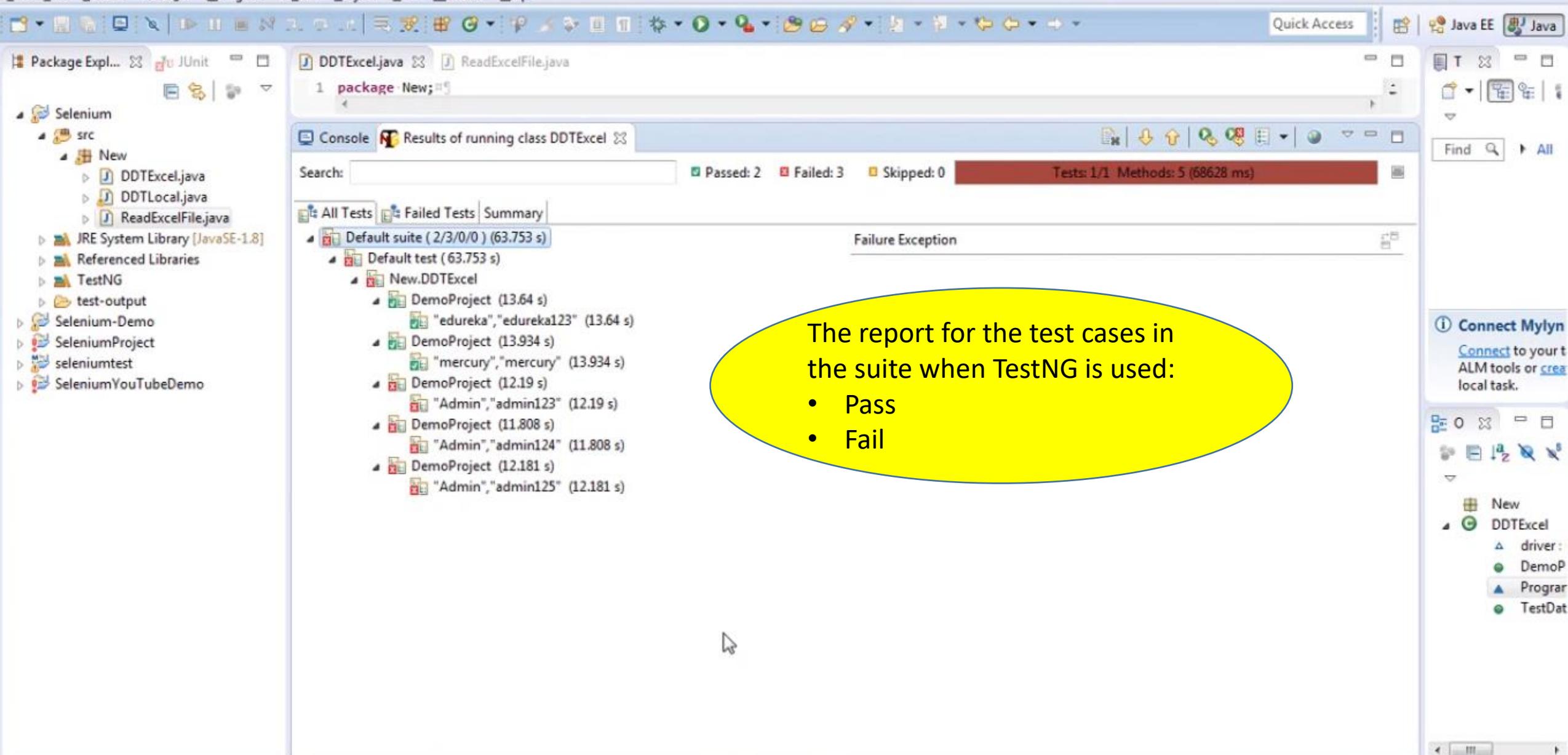
The last fail

① Connect Mylyn
Connect to your ALM tools or create local task.

0 New DDTExcel driver: DemoP Program TestDat

SUBSCRIBE

8: el 8/8/2017



The report for the test cases in the suite when TestNG is used:

- Pass
 - Fail

Some changes in practice (1)

- The page is tested: <http://demo.guru99.com/test/newtours/>

Welcome: Mercury Tours +

Not secure | demo.guru99.com/test/newtours/

Selenium - Insurance Project Agile Project Bank Project Security Project Telecom Project Payment Gateway Project New Tours SEO -

MERCURY TOURS

one cool summer ARUBA

SIGN-ON REGISTER SUPPORT CONTACT

Featured Destination ARUBA Jul 6, 2017

Find A Flight

Registered users can sign-in here to find the lowest fare on participating airlines.

User Name:

Password:

Submit

Destinations

Find detailed information about [your destination](#).

Vacations

Read about our [featured vacation destinations](#).

Register

[Register here](#) to join Mercury Tours!

Links

Tour Tips

TIP #93 Always carry a travel first aid kit with bandages, antacids, aspirin, bee sting wipes, and other basic

HTML VERSION
Use Java Version

Atlanta to Las Vegas \$398
Boston to San Francisco \$513
Los Angeles to Chicago \$168
New York to Chicago \$198
Phoenix to San Francisco \$213

Business Travel @ About.com
Salon Travel

Some changes in practice (2)

Welcome: Mercury Tours +

Not secure | demo.guru99.com/test/newtours/

MERCURY TOURS

one cool summer

SIGN-ON REGISTER SUPPORT

Featured Destination ARUBA

This island is surrounded by coral reefs, offers guaranteed sunshine and is blessed with beautiful beaches. Luxury resorts have taken up residence along most of the beachfronts on the southern coast, but there are still undeveloped areas on the exposed northern coast, and much of the interior is inhabited by nothing more substantial than goats.

Specials

Atlanta to Las Vegas	\$398
Boston to San Francisco	\$513
Los Angeles to Chicago	\$168
New York to Chicago	\$198
Phoenix to San Francisco	\$213

Tour Tips

TIP #93 Always carry a travel first aid kit with bandages, antacids, aspirin, bee sting wipes, and other basic necessities.

Find A Flight

Registered user here to find the participating air...

User Name:

Password:

Submit

Destinations

Vacations

Register

Links

Business Travel @ About.com
Salon Travel

HTML VERSION
Use Java Version

Elements Console Sources Network Performance Memory

<tr>

<td width="273" valign="top">...</td>
<td width="216"> </td>

<td width="192" valign="top">

<form method="post" action="index.php" name="home">
<input type="hidden" name="action" value="process">

<table width="192" border="0" cellspacing="0" cellpadding="0">

<tbody>

<tr align="right">...</tr>
<tr>...</tr>
<tr>...</tr>

<tr>

<td colspan="2">

<table width="100%" border="0" cellspacing="0" cellpadding="3" style="margin:5px;">

<tbody>

<tr>...</tr>

<tr>

<td align="right">...</td>

<td width="112" style="font-family:Arial, Helvetica;font-size:13px;color:#000;padding:5px;">

<input type="text" name="userName" size="10" /> == \$0

Console What's New

Unchecked runtime.lastError: The message port closed before a response was received.

Failed to load resource: the server responded with a status of 404 (Not Found) spacer.gif:1

Failed to load resource: the server responded with a status of 404 (Not Found) black:1

DevTools failed to load source map: Could not load content for http://demo.guru99.com/test/css/bootstrap.min.css.map: HTTP error: status code 404, net::ERR_HTTP_RESPONSE_CODE_FAILURE

Type here to search

29°C ENG US 03-Nov-21

Some changes in practice (3)

Welcome: Mercury Tours Not secure | demo.guru99.com/test/newtours/

Elements Console Sources Network Performance Memory > 9 2 Styles :hover .cls

one cool summer ARUBA

MERCURY TOURS

SIGN-ON REGISTER SUPPORT

Featured Destination ARUBA

This island is surrounded by coral reefs, offers guaranteed sunshine and is blessed with beautiful beaches. Luxury resorts have taken up residence along most of the beachfronts on the southern coast, but there are still undeveloped areas on the exposed northern coast, and much of the interior is inhabited by nothing more substantial than goats.

Home Flights Hotels Car Rentals Cruises Destinations Vacations

HTML VERSION Use Java Version

Specials

Atlanta to Las Vegas	\$398
Boston to San Francisco	\$513
Los Angeles to Chicago	\$168
New York to Chicago	\$198
Phoenix to San Francisco	\$213

Tour Tips

TIP #93 Always carry a travel first aid kit with bandages, antacids, aspirin, bee sting wipes, and other basic necessities.

Find A Flight ACCESSIBILITY

Registered user here to find the participating air

Name Role textbox Keyboard-focusable

User Name: Password: Submit

Destinations Find detailed information about your destination.

Vacations Read about our featured vacation destinations.

Register Register here to join Mercury Tours!

Links

Business Travel @ About.com
Salon Travel

<td align="right">...</td>

<td width="112" style="font-family:Arial, Helvetica;font-size:13px;color:#000;padding:5px;">

<input type="text" name="userName" size="10">

</td>

</tr>

<tr>

<td align="right">...</td>

<td width="112" style="font-family:Arial, Helvetica;font-size:13px;color:#000;padding:5px;">

<input type="password" name="password" size="10"> == \$0

 /span>

</td>

</tr>

<tr>...</tr>

<tr>...</tr>

</tbody>

</table>

</td>

</tr>

... body tr td table tbody tr td form table tbody tr td input ...

Console What's New

Unchecked runtime.lastError: The message port closed before a response was received.

Failed to load resource: the server responded with a status of 404 (Not Found) spacer.gif:1

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DevTools failed to load source map: Could not load content for http://demo.guru99.com/test/css/bootstrap.min.css.map: HTTP error: status code 404, net::ERR_HTTP_RESPONSE_CODE_FAILURE

Type here to search

O C Chrome F PDF W P Cloud 29°C ENG US 7:11 PM 03-Nov-21

Some changes in practice (4)

Welcome: Mercury Tours +

Not secure | demo.guru99.com/test/newtours/

MERCURY TOURS

one cool summer ARUBA

SIGN-ON REGISTER SUPPORT CONTACT

Featured Destination ARUBA

Find A Flight Registered user here to find the participating airline

ACCESSIBILITY Name Submit

User Name: Role button

Keyboard-focusable

Submit

Destinations Find detailed information about your destination.

Vacations Read about our featured vacation destinations.

Specials

Atlanta to Las Vegas \$398

Boston to San Francisco \$513

Los Angeles to Chicago \$168

New York to Chicago \$198

Phoenix to San Francisco \$213

Tour Tips

TIP #93 Always carry a travel first aid kit with bandages, antacids, aspirin, bee sting wipes, and other basic necessities.

HTML VERSION Use Java Version

Business Travel @ About.com
Salon Travel

input 60.99 x 20.87

Background #FACB00

Padding 1px 6px

... tr td table tbody tr td form table tbody tr td table tbody tr td div input ...

Console What's New

Unchecked runtime.lastError: The message port closed before a response was received.

Failed to load resource: the server responded with a status of 404 (Not Found) spacer.gif:1

Failed to load resource: the server responded with a status of 404 (Not Found) black:1

DevTools failed to load source map: Could not load content for http://demo.guru99.com/test/css/bootstrap.min.css.map: HTTP error: status code 404, net::ERR_HTTP_RESPONSE_CODE_FAILURE

Elements Console Sources Network Performance Memory » ⑨ F2 Styles :: hov .cls element. style { background-color: #FACB00; border: 1px solid black; font-family: MS Sans Serif; font-size: 15px; }

Styles :: hov .cls element. style { background-color: #FACB00; border: 1px solid black; font-family: MS Sans Serif; font-size: 15px; }

bootstrap button, html input[type=button],

Type here to search

O E G M P W PPT Cloud 29°C ENG US 7:13 PM 03-Nov-21

Some changes in practice (5)

Login: Mercury Tours

Not secure | demo.guru99.com/test/newtours/login_sucess.php

GURU⁹⁹ Demo Site

Selenium ▾ Insurance Project Agile Project Bank Project Security Project Telecom Project Payment Gateway Project New Tours SEO ▾

The screenshot shows a web browser window with the title 'Login: Mercury Tours'. The address bar indicates a 'Not secure' connection to 'demo.guru99.com/test/newtours/login_sucess.php'. The main content area displays a 'GURU⁹⁹ Demo Site' header. Below it is a navigation bar with links: Selenium ▾, Insurance Project, Agile Project, Bank Project, Security Project, Telecom Project, Payment Gateway Project, New Tours, and SEO ▾. The main content features a banner for 'one cool summer' at 'ARUBA' with people on a water slide. A yellow navigation bar below the banner includes 'SIGN-OFF', 'REGISTER', 'SUPPORT', and 'CONTACT' buttons. On the left, a sidebar for 'MERCURY TOURS' lists links: Home, Flights, Hotels, Car Rentals, Cruises, Destinations, and Vacations. At the bottom, there's a link to 'HTML VERSION' and 'Use Java Version'. The footer contains the text 'Login Successfully', 'Thank you for Loggin.', and the copyright notice '© 2005, Mercury Interactive (v. 011003-1.01-058)'.

one cool summer ARUBA

SIGN-OFF REGISTER SUPPORT CONTACT

MERCURY TOURS

Home
Flights
Hotels
Car Rentals
Cruises
Destinations
Vacations

HTML VERSION
Use Java Version

© 2005, Mercury Interactive (v. 011003-1.01-058)

Some changes in practice (6)

The screenshot shows a Windows File Explorer window with the following details:

- File Explorer Title Bar:** newtours
- File Tab:** Selected
- Home Tab:** Selected
- Share Tab:** Available
- View Tab:** Available
- Clipboard Group:** Pin to Quick access, Copy, Paste, Cut, Copy path, Paste shortcut
- Organize Group:** Move to, Delete, Copy to, Rename, New folder, Properties, Select all, Select none, Invert selection
- Search Bar:** Search newtours
- Address Bar:** D:\TestProjects\newtours
- Left Sidebar:** Quick access, OneDrive, This PC, 3D Objects, Desktop, 1 item
- Content Area:** A Microsoft Excel file named "LoginCredentials.xlsx" is open. The file contains the following data:

	A	B	C	D	E	F	G	H	I	J	K
1	edureka	edureka123									
2	mercury	mercury									
3	Admin	admin123									
4	Admin	admin124									
5	Admin	admin125									
6											
7											

The Excel ribbon tabs shown are: File, Home, Insert, Page Layout, Formulas, Data, Review, View, Help, Share, Cells, Editing, Analyze Data, Analysis.

Exercise

Create a testing project as the above one but with some changes:

- Testing the Login function of the Elearning page:
<https://elearning.ctu.edu.vn/login/index.php>
- Using test data from an Excel file (your own file)
 - D:\TestProjects\Elearning\LoginCredentials.xlsx
 - Contains a list of test data for test cases: username and password
 - username1 password1
 - username2 password2
 -
- Assert that the above page will be successfully logged in using a valid username and valid password.



Home English (en) ▾

Welcome to CTU E-learning!

Username

Password

Remember username

Log in

Log in the form
with the Remember username
checkbox is checked

Cookies must be enabled in your browser ⓘ



Nguyen Cong Danh

[Home](#)[My courses](#) ▾[English \(en\)](#) ▾

Course categories



Assert whether this page will be showed if a credential is valid

▶ Khoa Giáo dục Thể chất (2)

▶ Trường Bách Khoa (80)

▶ Trường Công nghệ Thông tin & Truyền thông (259)

▶ Khoa Dự bị Dân tộc

Navigation

[Home](#)[Dashboard](#)

▶ Welcome to CTU E-learning!

▼ My courses

▶ Trường Công nghệ Thông tin & Truyền thông

▶ Courses

Administration

▼ Front page settings

▶ Backup

▶ Restore

▶ Site administration

Reference

- <https://www.youtube.com/watch?v=K9VQWQ7KnHk>

See more

- AUTOMATED SELENIUM TESTING FRAMEWORK USING TESTNG & WEBDRIVER, <http://www.faichi.com/blog/automated-selenium-testing-framework-using-testng-webdriver>
- TestNG, <https://testng.org/doc/documentation-main.html>