**M.C.A Semester – III**

| **Roll No :** | 1258(LAB3) |
| --- | --- |
| **Name of Student :** | Nidhi Sawant |
| **Subject :** | MCAL35 Software Testing & Quality Assurance Lab |
| **Module:** |  |
| **Date of Assignment:** | 16-09-2022 |
| **Deadline of Submission:** | 16-09-2022 |

**Q. 1) Implement Web Drivers on Chrome / Firefox Browser.**

**Source code:**

**package DemoPrograms;**

**import org.openqa.selenium.WebDriver;**

**import org.openqa.selenium.chrome.ChromeDriver;**

**//import org.openqa.selenium.firefox.FirefoxDriver;**

**public class BrowserDemo {**

**public static void main(String[] args) {**

**// Browser demonstration**

**System.setProperty("webdriver.chrome.driver", "D:\\Selenium\\chromedriver.exe");**

**WebDriver wd=new ChromeDriver();**

**wd.get("https://www.met.edu/");**

**}**

**}**

**Output:**

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**Q. 2) Implement cross browser demonstration using Selenium webdriver.**

**Source code:**

package DemoPrograms;

import java.util.\*;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

import org.openqa.selenium.firefox.FirefoxDriver;

public class CrossBrowserDemo {

static WebDriver wd;

public static void main(String[] args) {

// TODO Auto-generated method stub

//cross browser demonstration

Scanner sc=new Scanner(System.in);

System.out.println("\n1: chrome \n2:Firefox \n");

System.out.println("enter choice: ");

int ch=sc.nextInt();

switch(ch)

{

case 1:System.setProperty("webdriver.chrome.driver","D:\\Selenium\\chromedriver.exe");

wd=new ChromeDriver();

break;

case 2:System.setProperty("webdriver.gecko.driver","D:\\Selenium\\geckodriver.exe");

wd=new FirefoxDriver();

break;

default:

System.out.println("invalid choice");

}

if(wd !=null)

{

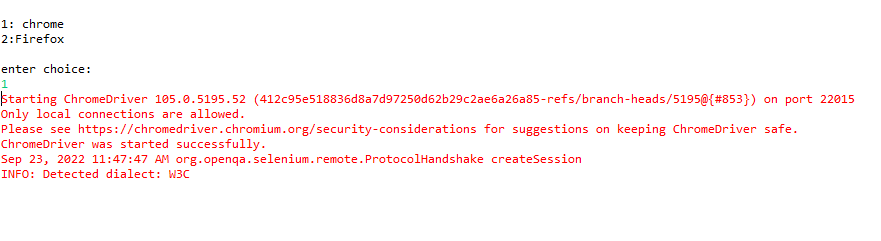
wd.get("https://www.w3schools.com/");

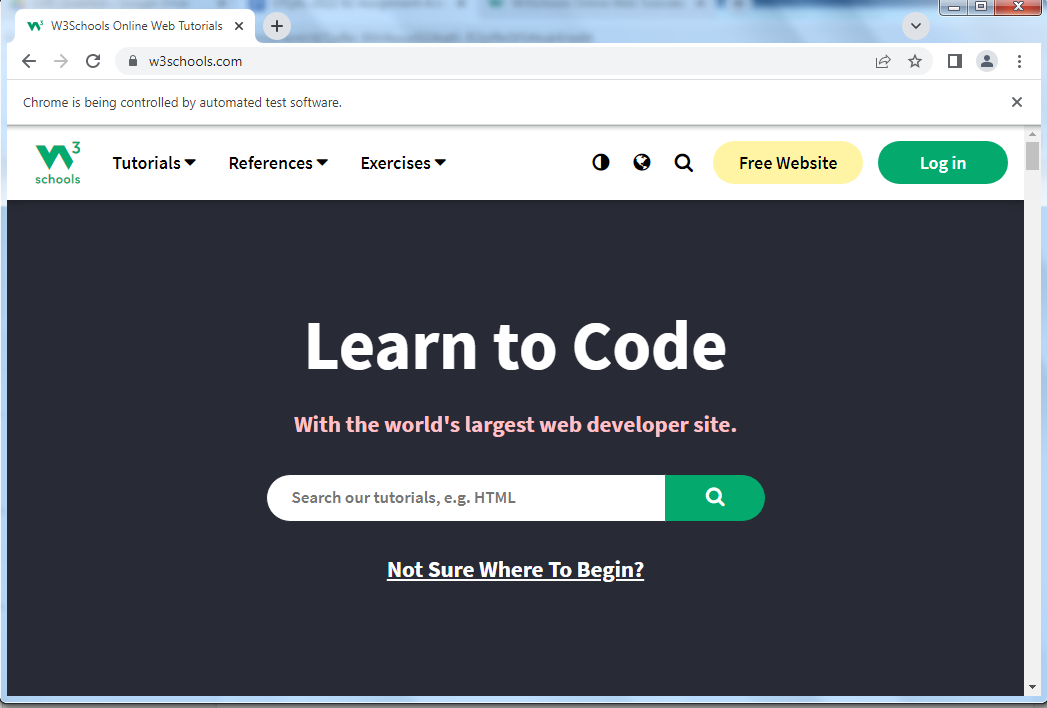
}

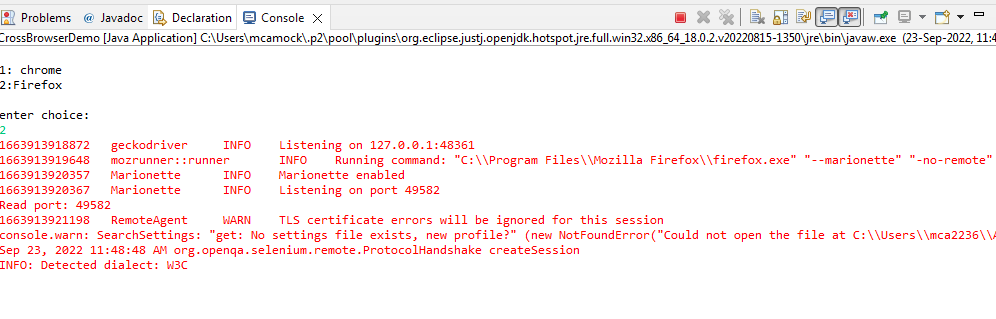
}

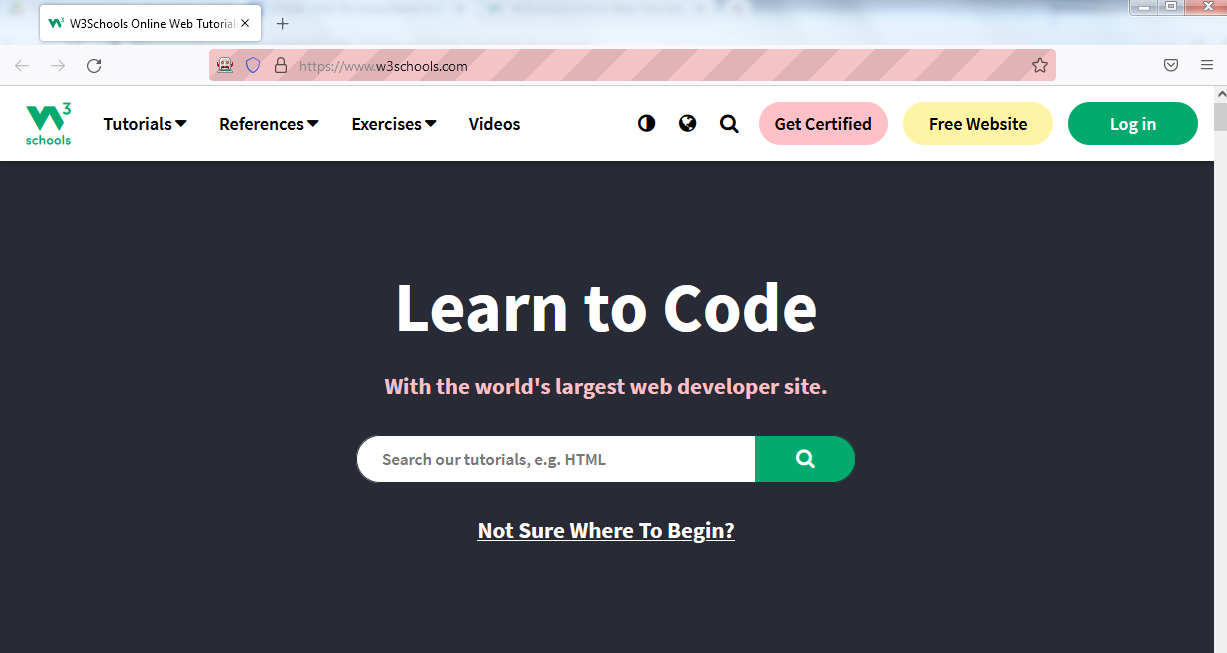
}

**Output:**

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**Q. 3) Implement Locator (id, name, class, partial link text, link text etc.) demonstration on login page of** [**https://opensource-demo.orangehrmlive.com/**](https://opensource-demo.orangehrmlive.com/) **Selenium webdriver.**

**Source code:**

package DemoPrograms;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

public class LocatorDemo {

public static void main(String[] args) throws Exception {

// TODO Auto-generated method stub

//Locator Demo open orangeHRM website

//program for auto login and logout

System.setProperty("webdriver.chrome.driver","D:\\\\Selenium\\\\chromedriver.exe");

WebDriver wd=new ChromeDriver();

wd.get("https://opensource-demo.orangehrmlive.com/web/index.php/auth/login");

Thread.sleep(1000);//code for delay

wd.findElement(By.name("username")).sendKeys("Admin");

Thread.sleep(1000);

//findelement using name property of textbox's name property given in website's textbox code

wd.findElement(By.name("password")).sendKeys("admin123");

Thread.sleep(1000);

wd.findElement(By.cssSelector("button[type=submit]")).click();//code for submit

Thread.sleep(3000);//code for delay

//right click on admin name on website->inspect->rightclick on name->inspect->

//rightclcik on highlighted text->copy->copy Xpath

wd.findElement(By.xpath("//\*[@id=\"app\"]/div[1]/div[1]/header/div[1]/div[2]/ul/li/span/p")).click();

Thread.sleep(2000);

wd.findElement(By.linkText("Logout")).click();

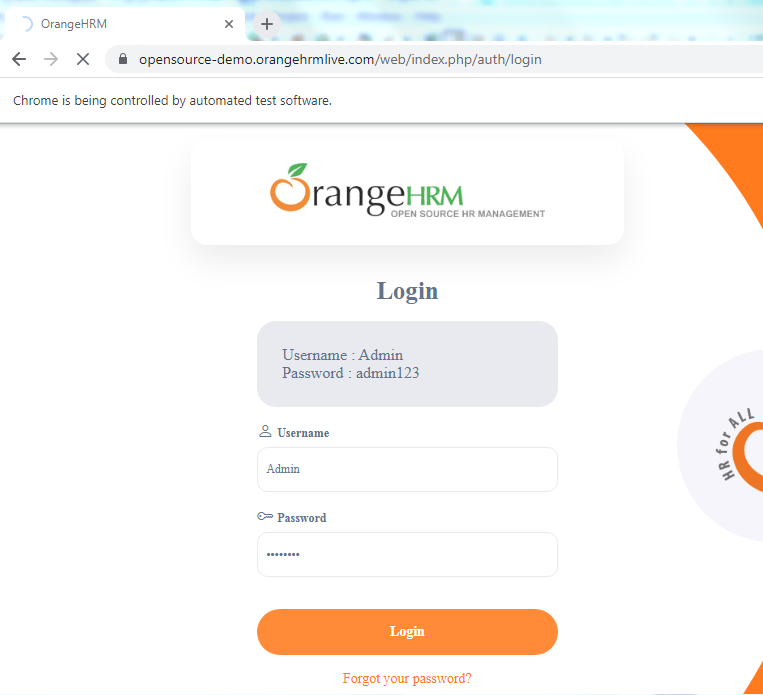
Thread.sleep(2000);

wd.quit();

}

}

**Output:**

****

**Q.4) Implement Locator [id, name, class, partial link text, link text, cssSelector, Xpath (absolute path and relative path)] demonstration on login page of** [**https://infyspringboard.onwingspan.com/web/en/login**](https://infyspringboard.onwingspan.com/web/en/login)  **Selenium webdriver.**

**Source code:**

package DemoPrograms;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

public class InfosysDemo {

public static void main(String[] args) throws Exception {

// TODO Auto-generated method stub

System.setProperty("webdriver.chrome.driver","D:\\\\Selenium\\\\chromedriver.exe");

WebDriver wd=new ChromeDriver();

wd.get("https://infyspringboard.onwingspan.com/web/en/login");

Thread.sleep(3000);//code for delay

wd.findElement(By.xpath("//\*[@id=\"onetrust-accept-btn-handler\"]")).click();//accept cookies

Thread.sleep(3000);

wd.findElement(By.xpath("//\*[@id=\"ws-root-main-content\"]/ws-login-root/ws-infosysheadstart-login/div[1]/div/div[5]/button/span[1]")).click();

Thread.sleep(3000);

wd.findElement(By.name("username")).sendKeys("mca21\_1236ics@met.edu");

Thread.sleep(2000);

wd.findElement(By.name("password")).sendKeys("Karan@36");

Thread.sleep(2000);

wd.findElement(By.id("kc-login")).click();

Thread.sleep(3000);

//wd.findElement(By.xpath("/html/body/ws-root/ws-new-root/nav/ws-new-nav-bar/mat-toolbar[1]/ws-widget-btn-profile-pic/a/span[1]/mat-progress-spinner/svg/circle")).click();

wd.findElement(By.cssSelector("circle.ng-star-inserted")).click();

Thread.sleep(3000);

wd.findElement(By.xpath("//\*[@id=\"ws-root-main-content\"]/ws-app-profile/ws-app-dashboard/div[2]/div[2]/button/span[1]")).click();

Thread.sleep(3000);

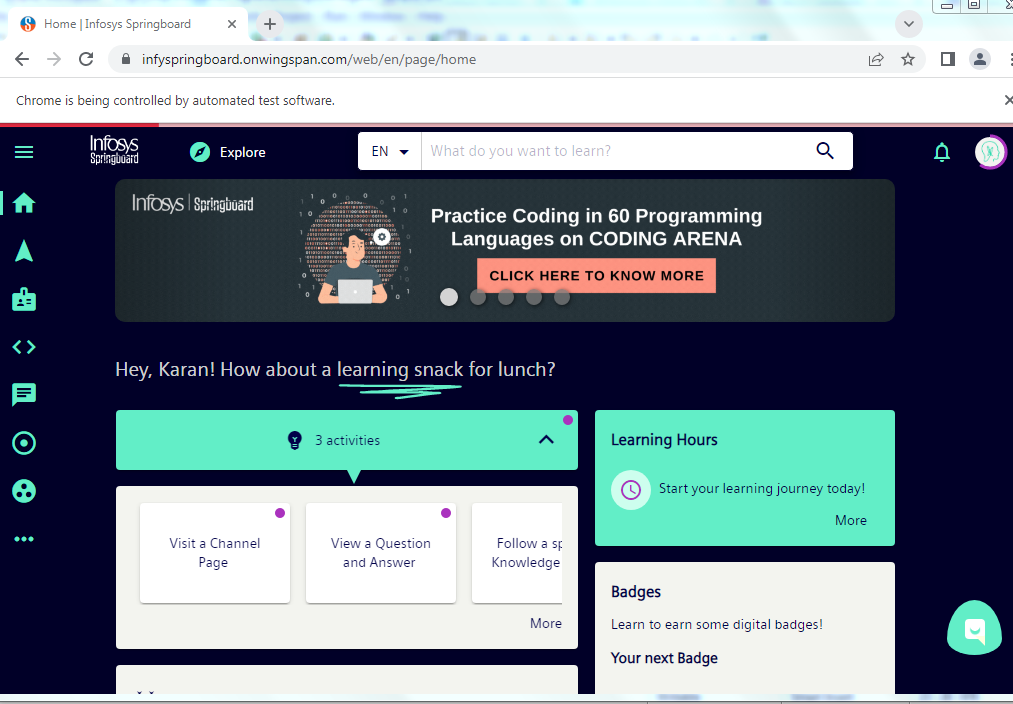
wd.findElement(By.xpath("//\*[@id=\"mat-dialog-0\"]/ws-utils-logout/div[2]/button[1]")).click();

wd.quit();

}

}

**Output:**

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**Q. 1) Implement Locator (cssselector) demonstration on login page of** [**https://opensource-demo.orangehrmlive.com/**](https://opensource-demo.orangehrmlive.com/) **Selenium webdriver.**

**Source code:**

**package DemoPrograms;**

**import org.openqa.selenium.By;**

**import org.openqa.selenium.WebDriver;**

**import org.openqa.selenium.chrome.ChromeDriver;**

**public class CSSSelectorDemo {**

**public static void main(String[] args)throws Exception {**

**//not working program**

**// TODO Auto-generated method stub**

**System.setProperty("webdriver.chrome.driver", "D:\\\\Selenium\\\\chromedriver.exe");**

**WebDriver wd=new ChromeDriver();**

**Thread.sleep(5000);**

**wd.get("https://opensource-demo.orangehrmlive.com/web/index.php/auth/login");**

**Thread.sleep(5000);//code for delay**

**wd.findElement(By.cssSelector("input.oxd-input oxd-input--active")).sendKeys("Admin");**

**Thread.sleep(1000);**

**wd.findElement(By.xpath("//\*[@id=\"app\"]/div[1]/div/div[1]/div/div[2]/div[2]/form/div[2]/div/div[2]/input")).sendKeys("admin123");**

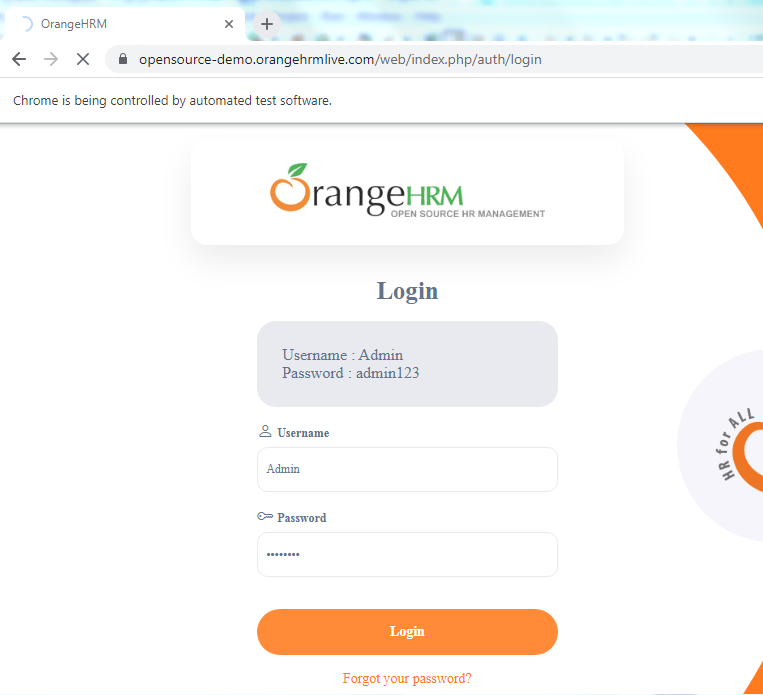
**Thread.sleep(1000);**

**wd.quit();**

**}**

**}**

**Output:**

****

**Q.2) Implement implicit wait on https://opensource-demo.orangehrmlive.com/web/index.php/auth/login**  **Selenium webdriver.**

**Source code:**

**package DemoPrograms;**

**import java.util.concurrent.TimeUnit;**

**import org.openqa.selenium.By;**

**import org.openqa.selenium.WebDriver;**

**import org.openqa.selenium.chrome.ChromeDriver;**

**public class ImplicitWaitDemo {**

**public static void main(String[] args) {**

**// TODO Auto-generated method stub**

**System.setProperty("webdriver.chrome.driver","D:\\\\Selenium\\\\chromedriver.exe");**

**WebDriver wd=new ChromeDriver();**

**wd.get("https://opensource-demo.orangehrmlive.com/web/index.php/auth/login");**

**wd.manage().timeouts().implicitlyWait(60,TimeUnit.SECONDS);**

**wd.findElement(By.name("username")).sendKeys("Admin");**

**wd.findElement(By.name("password")).sendKeys("admin123");**

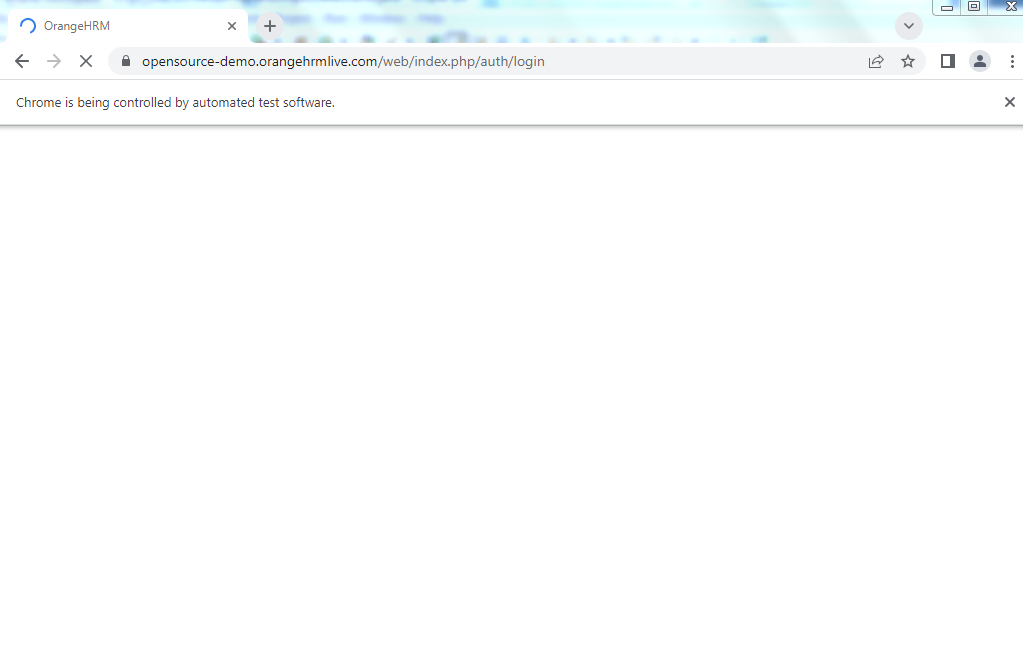
**wd.findElement(By.cssSelector("button[type=submit]")).click();**

**wd.quit();**

**}**

**}**

**Output:**

****

**Q.3) Implement explicit wait on** [**https://infyspringboard.onwingspan.com/web/en/login**](https://infyspringboard.onwingspan.com/web/en/login)  **Selenium webdriver.**

**Source code:**

**package DemoPrograms;**

**import org.openqa.selenium.By;**

**import org.openqa.selenium.WebDriver;**

**import org.openqa.selenium.chrome.ChromeDriver;**

**import org.openqa.selenium.support.ui.WebDriverWait;**

**public class ExplicitWaitDemo {**

**public static void main(String[] args)throws Exception {**

**// TODO Auto-generated method stub**

**System.setProperty("webdriver.chrome.driver","D:\\\\Selenium\\\\chromedriver.exe");**

**WebDriver wd=new ChromeDriver();**

**WebDriverWait wt=new WebDriverWait(wd,10);**

**wd.get("https://opensource-demo.orangehrmlive.com");**

**Thread.sleep(3000);**

**wd.findElement(By.xpath("/html/body/div/div[1]/div/div[1]/div/div[2]/div[2]/form/div[1]/div/div[2]/input")).sendKeys("Admin");**

**System.out.println("Username explicit wait");**

**Thread.sleep(3000);**

**// //\*[@id="app"]/div[1]/div/div[1]/div/div[2]/div[2]/form/div[2]/div/div[2]/input**

**wd.findElement(By.xpath("//\*[@id=\"app\"]/div[1]/div/div[1]/div/div[2]/div[2]/form/div[2]/div/div[2]/input")).sendKeys("admin123");**

**Thread.sleep(3000);**

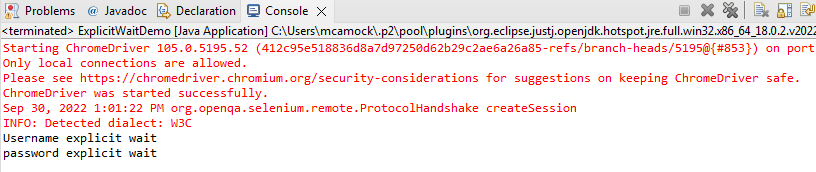
**System.out.println("password explicit wait");**

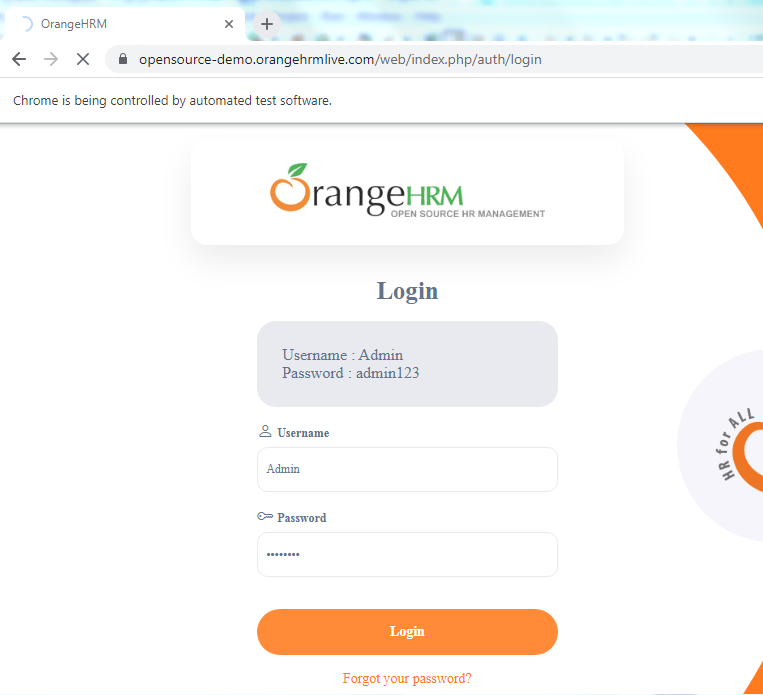
**wd.quit();**

**}**

**}**

**Output:**

****

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**Q.4) Implement Multislect on given web page**  **Selenium webdriver.**

**Source code:**

**package DemoPrograms;**

**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;**

**public class MultiSelectDemo {**

**public static void main(String[] args)throws Exception {**

**// TODO Auto-generated method stub**

**System.setProperty("webdriver.chrome.driver","D:\\\\Selenium\\\\chromedriver.exe");**

**WebDriver wd=new ChromeDriver();**

**Thread.sleep(5000);**

**wd.get("C:\\1236\\mltiselectdemo.html");**

**//to implement radio button selection for web programming language**

**WebElement radio1=wd.findElement(By.id("html"));**

**radio1.click();**

**System.out.println("HTML slected");**

**WebElement radio2=wd.findElement(By.id("age2"));**

**radio2.click();**

**System.out.println("age 31-60 slected");**

**WebElement checkbox1=wd.findElement(By.id("3"));**

**checkbox1.click();**

**System.out.println("Language Lab selected");**

**Select s=new Select(wd.findElement(By.id("select\_languages")));**

**if (s.isMultiple())**

**{**

**s.selectByIndex(1);**

**s.selectByValue("C#");**

**s.selectByVisibleText("C++");**

**System.out.println("Python,C++,C# selected");**

**}**

**//WebElement dd1=wd.findElement(By.xpath("//\*[@id=\"select\_languages\"]/option[5]"));**

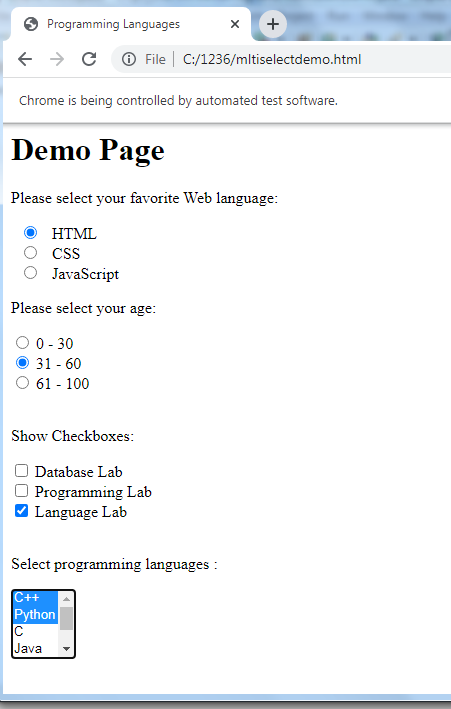
**//radio2.click();**

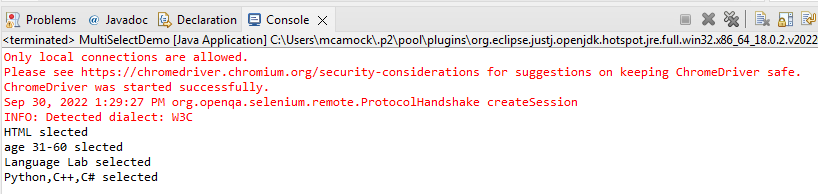
**//System.out.println("C# slected");**

**}**

**}**

**Output:**

****

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Q. 1) Demonstrate data driven framework (use excel file for test data) for login form of https://opensourcedemo.orangehrmlive.com/ using Selenium webdriver.

**Source code:**

package DemoPrograms;

import java.io.FileInputStream;

import java.io.IOException;

import java.util.concurrent.TimeUnit;

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 PoiDemoPrg1 {

public static void main(String[] args) throws Exception {

// TODO Auto-generated method stub

//data driven Framework

System.setProperty("webdriver.chrome.driver","D:\\\\Selenium\\\\chromedriver.exe");

WebDriver wd=new ChromeDriver();

wd.get("https://opensource-demo.orangehrmlive.com/web/index.php/auth/login");

wd.manage().timeouts().implicitlyWait(60,TimeUnit.SECONDS);

FileInputStream fis=new FileInputStream("D:\\Selenium\\DemoExcel.xlsx");

XSSFWorkbook wb=new XSSFWorkbook(fis);

XSSFSheet sh=wb.getSheet("Sheet1");

for(int i=1;i<=sh.getLastRowNum();i++)

{

XSSFRow rw=sh.getRow(i);

XSSFCell un=rw.getCell(0);

XSSFCell pwd=rw.getCell(1);

System.out.println("Username="+un+"\nPassword="+pwd);

wd.findElement(By.name("username")).sendKeys(un.toString());

wd.findElement(By.name("password")).sendKeys(pwd.toString());

Thread.sleep(2000);

wd.findElement(By.cssSelector("button[type=submit]")).click();

Thread.sleep(5000);

wd.findElement(By.xpath("//\*[@id=\"app\"]/div[1]/div[1]/header/div[1]/div[2]/ul/li/span/p")).click();

Thread.sleep(2000);

wd.findElement(By.linkText("Logout")).click();

}

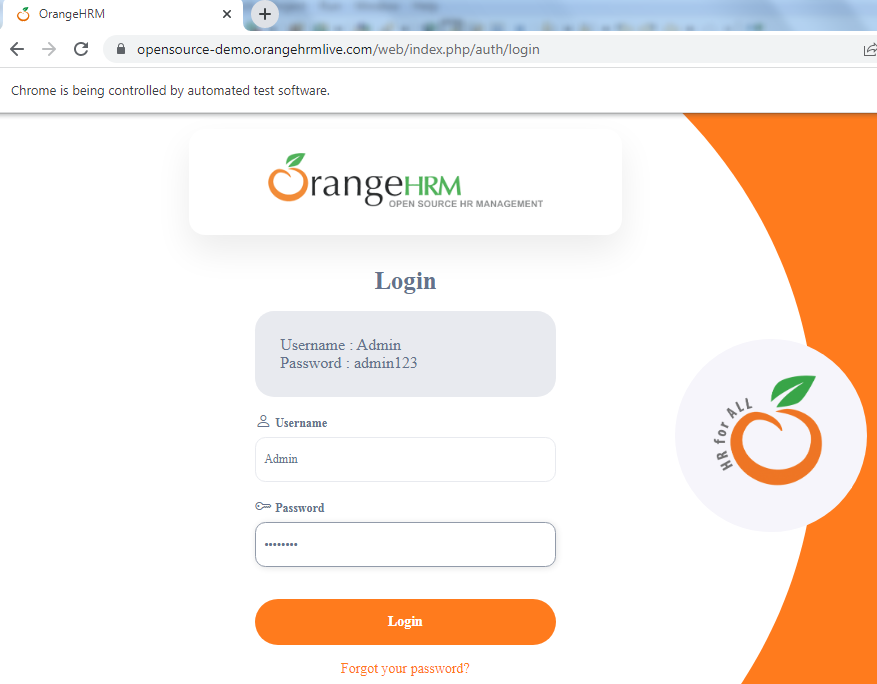
wb.close();

}

}

**Output:**





Q. 2) Demonstrate data driven framework (use excel file for test data) for login form of https://opensourcedemo.orangehrmlive.com/ and write the result of test case in the data file. IF the login is successful then display test result as “Valid” otherwise “Invalid”

**Source code:**

package Programs;

import java.io.FileInputStream;

import java.io.FileNotFoundException;

import java.io.FileOutputStream;

import java.util.concurrent.TimeUnit;

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 POIValidDemo {

public static void main(String[] args) throws Exception {

// TODO Auto-generated method stub

System.setProperty("webdriver.chrome.driver", "C:\\Selenium\\chromedriver.exe");

WebDriver wd=new ChromeDriver();

wd.get("https://opensource-demo.orangehrmlive.com/web/index.php/auth/login");

wd.manage().timeouts().implicitlyWait(60,TimeUnit.SECONDS);

FileInputStream fis=new FileInputStream("C:\\Selenium\\Dem.xlsx");

XSSFWorkbook wb=new XSSFWorkbook(fis);

XSSFSheet sh=wb.getSheet("Sheet1");

for(int i=1;i<=sh.getLastRowNum();i++)

{

XSSFRow rw=sh.getRow(i);

XSSFCell un=rw.getCell(0);

XSSFCell pwd=rw.getCell(1);

XSSFCell res=rw.createCell(2);

System.out.println("Username--> "+un+" Password--> "+pwd);

wd.findElement(By.name("username")).sendKeys(un.toString());

wd.findElement(By.name("password")).sendKeys(pwd.toString());

Thread.sleep(2000);

wd.findElement(By.cssSelector("button[type=submit]")).click();

try {

//Thread.sleep(1000);

wd.findElement(By.xpath("//\*[@id=\"app\"]/div[1]/div[1]/header/div[1]/div[2]/ul/li/span/p")).click();

Thread.sleep(2000);

wd.findElement(By.linkText("Logout")).click();

System.out.println("Pass");

res.setCellValue("Valid");

}

catch(Exception ex)

{

System.out.println("fail");

res.setCellValue("invalid");

}

}

FileOutputStream fos=new FileOutputStream("C:\\Selenium\\Dem.xlsx");

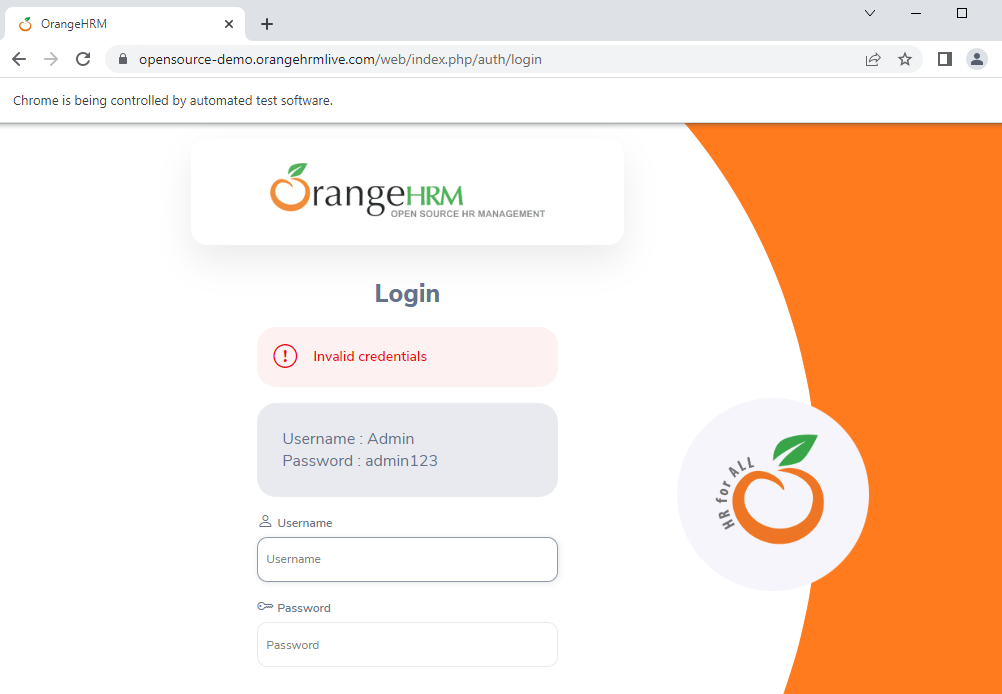
wb.write(fos);

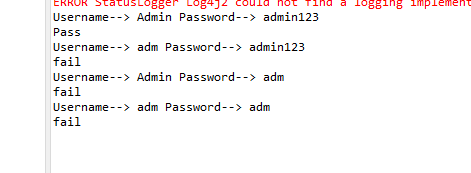
fos.close();

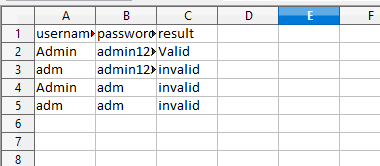
}

}

**Output:**







**Q. 1)** Implement Action Demo on <https://opensource-demo.orangehrmlive.com/> (Add admin user using automation tool) using Selenium webdriver.

**Source code:**

package DemoPrograms;

import java.util.List;

import java.util.concurrent.TimeUnit;

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.interactions.Actions;

public class ActionDemoAssignment {

public static void main(String[] args) throws Exception {

// TODO Auto-generated method stub

System.setProperty("webdriver.chrome.driver", "D:\\Selenium\\chromedriver.exe");

WebDriver wd=new ChromeDriver();

wd.get("https://opensource-demo.orangehrmlive.com/web/index.php/auth/login");

wd.manage().window().maximize();

wd.manage().timeouts().implicitlyWait(10, TimeUnit.SECONDS);

wd.findElement(By.name("username")).sendKeys("Admin");

wd.findElement(By.name("password")).sendKeys("admin123");

wd.findElement(By.cssSelector("button[type=submit]")).click();

Actions act = new Actions(wd);

List<WebElement> menu = wd.findElements(By.className("oxd-main-menu-item-wrapper"));

for(int i=0; i<=menu.size()-1; i++ )

{

System.out.println(menu.get(i).getText());

act.moveToElement(menu.get(i)).perform();

}

System.out.println("--------------------------------------------");

wd.findElement(By.xpath("/html/body/div/div[1]/div[1]/aside/nav/div[2]/ul/li[1]/a/span")).click();

List<WebElement> admin = wd.findElements(By.className("oxd-topbar-body-nav-tab-item"));

for(int i=0; i<=admin.size()-1; i++ )

{

System.out.println(admin.get(i).getText());

act.moveToElement(admin.get(i)).perform();

}

wd.findElement(By.xpath("/html/body/div/div[1]/div[1]/header/div[1]/div[2]/ul/li/span")).click();

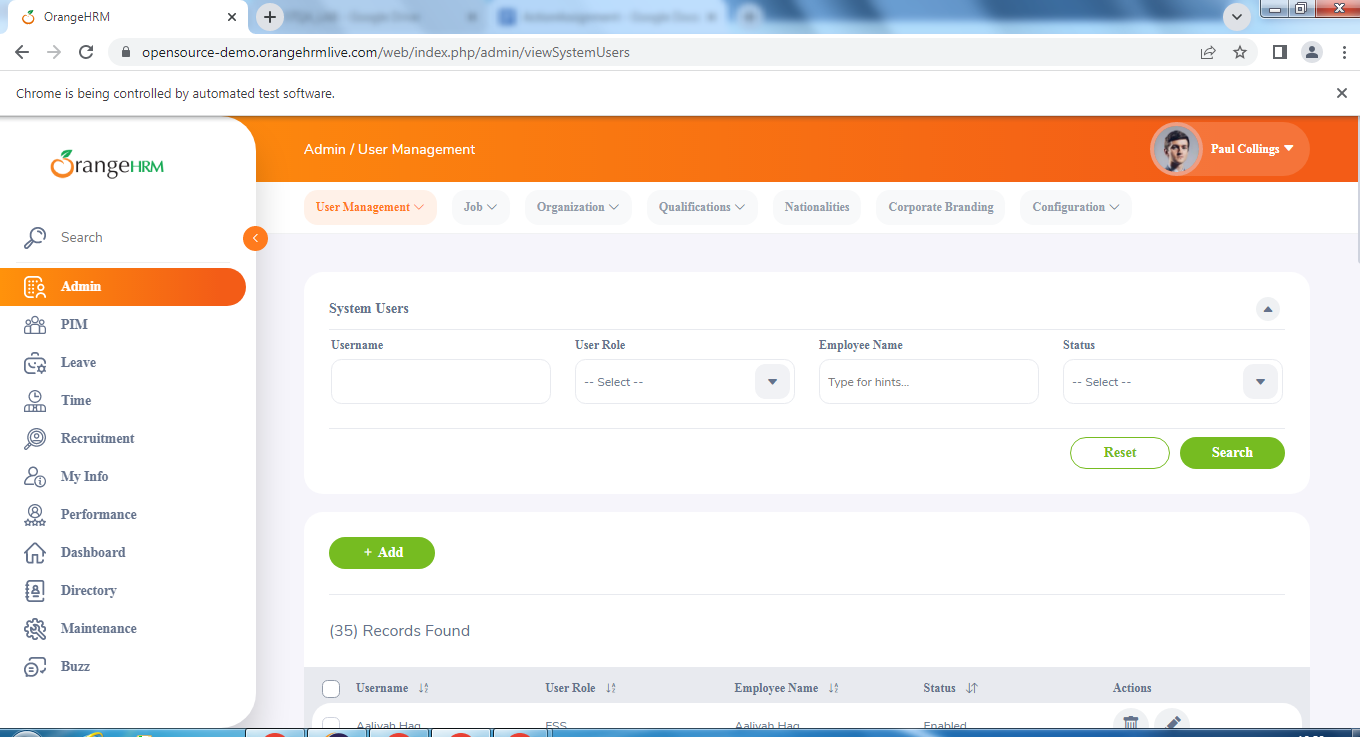
wd.findElement(By.linkText("Logout")).click();

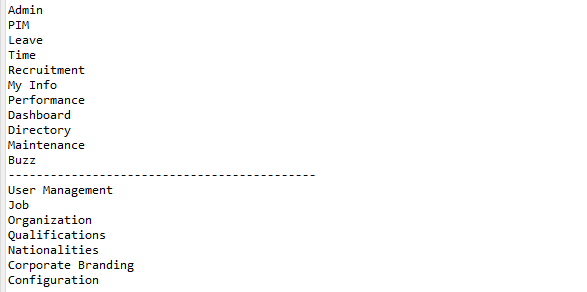
//wd.findElement(By.className("oxd-text oxd-text--span oxd-main-menu-item--name")).click();

}

}

**Output:**





**Q. 2)** Implement alert demo on website <http://frontaccounting.squadinfotech.in/index.php> using Selenium webdriver. (Username: frontuser1, Password: frontuser1, and Company: Squad\_MT\_OL-191)

**Source code:**

package DemoPrograms;

import java.util.concurrent.TimeUnit;

import org.openqa.selenium.Alert;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

import org.openqa.selenium.support.ui.Select;

public class AlertDemo {

public static void main(String[] args) throws Exception {

// TODO Auto-generated method stub

System.setProperty("webdriver.chrome.driver", "D:\\Selenium\\chromedriver.exe");

WebDriver wd=new ChromeDriver();

wd.get("http://frontaccounting.squadinfotech.in/");

wd.manage().window().maximize();

wd.manage().timeouts().implicitlyWait(5, TimeUnit.SECONDS);

wd.findElement(By.xpath("//\*[@id=\"\_page\_body\"]/form/center[1]/table/tbody/tr[3]/td[2]/input")).sendKeys("frontuser1");

wd.findElement(By.xpath("//\*[@id=\"\_page\_body\"]/form/center[1]/table/tbody/tr[4]/td[2]/input")).sendKeys("frontuser1");

Select s=new Select(wd.findElement(By.name("company\_login\_name")));

s.selectByVisibleText("Squad\_MT\_191");

wd.findElement(By.name("SubmitUser")).click();

Thread.sleep(2000);

wd.findElement(By.xpath("/html/body/table[1]/tbody/tr/td/table[1]/tbody/tr/td/div[2]/table/tbody/tr[1]/td/table/tbody/tr[2]/td[1]/a[3]")).click();

wd.findElement(By.id("CancelOrder")).click();

Alert alt=wd.switchTo().alert();

System.out.println("Alert text ===>"+alt.getText());

Thread.sleep(1000);

alt.accept();

Thread.sleep(1000);

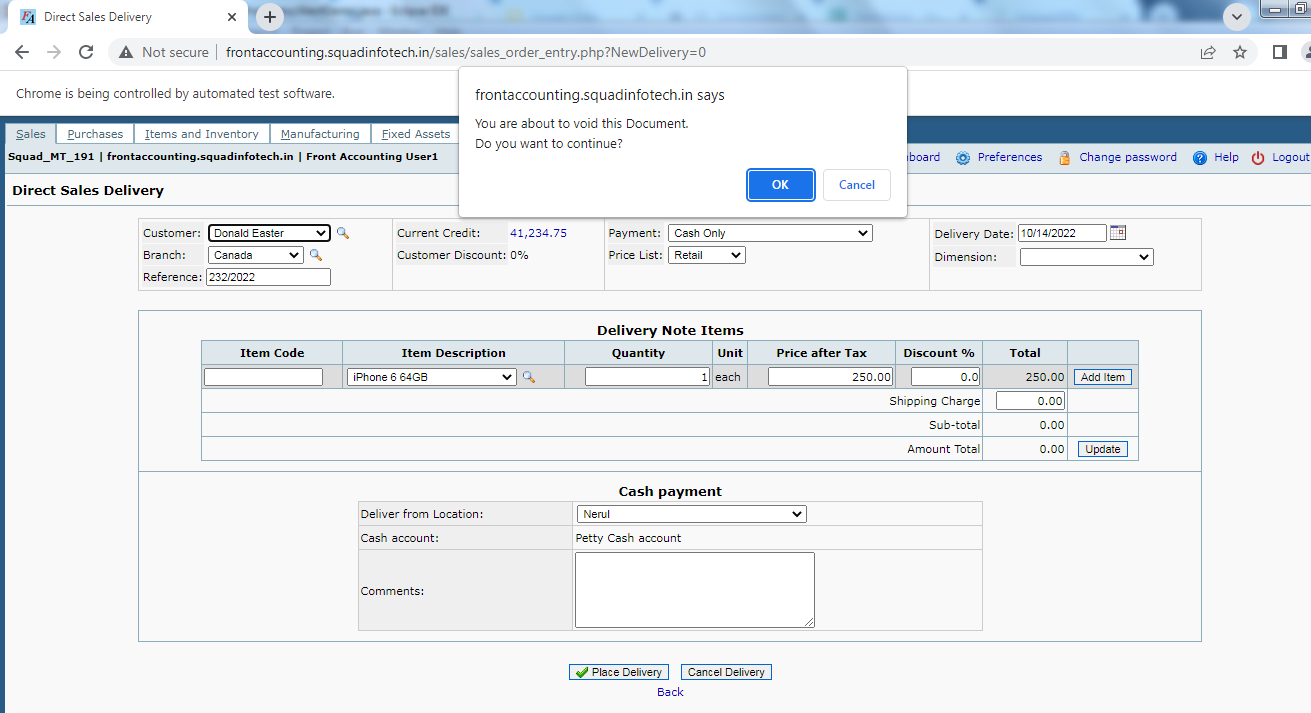
wd.findElement(By.xpath("/html/body/table[1]/tbody/tr/td/table[1]/tbody/tr/td/table/tbody/tr/td/table[2]/tbody/tr[1]/td[3]/a[5]/img")).click();

}

}

**Output:**





**Q. 3)** Implement window handling demo on website <http://frontaccounting.squadinfotech.in/index.php> using Selenium webdriver.

**Source code:**

package DemoPrograms;

import java.util.Set;

import java.util.concurrent.TimeUnit;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

import org.openqa.selenium.support.ui.Select;

public class MuitliWindowHandlingDemo {

public static void main(String[] args) throws Exception {

// TODO Auto-generated method stub

System.setProperty("webdriver.chrome.driver", "D:\\\\Selenium\\\\chromedriver.exe");

WebDriver wd=new ChromeDriver();

wd.get("http://frontaccounting.squadinfotech.in/");

wd.manage().window().maximize();

wd.manage().timeouts().implicitlyWait(5, TimeUnit.SECONDS);

wd.findElement(By.xpath("//\*[@id=\"\_page\_body\"]/form/center[1]/table/tbody/tr[3]/td[2]/input")).sendKeys("frontuser1");

wd.findElement(By.xpath("//\*[@id=\"\_page\_body\"]/form/center[1]/table/tbody/tr[4]/td[2]/input")).sendKeys("frontuser1");

Select s=new Select(wd.findElement(By.name("company\_login\_name")));

s.selectByVisibleText("Squad\_MT\_191");

wd.findElement(By.name("SubmitUser")).click();

Thread.sleep(3000);

//sales quotation entry

wd.findElement(By.partialLinkText("uotation Entry")).click();

String pid=wd.getWindowHandle();//getting current window page's handle

System.out.println("parent window ===>"+pid);

wd.findElement(By.xpath("//\*[@id=\"\_page\_body\"]/form/center[1]/table/tbody/tr/td[2]/table/tbody/tr[1]/td[2]/a")).click();

Set<String> allwin=wd.getWindowHandles();

for(String W:allwin)

{

wd.switchTo().window(W);

System.out.println(wd.getTitle());

Thread.sleep(3000);

if(!W.equals(pid))

{

Select ss=new Select(wd.findElement(By.id("customer\_id")));

ss.selectByIndex(0);

Thread.sleep(5000);

wd.manage().window().maximize();

wd.close();

}

}

wd.switchTo().window(pid);

Thread.sleep(2000);

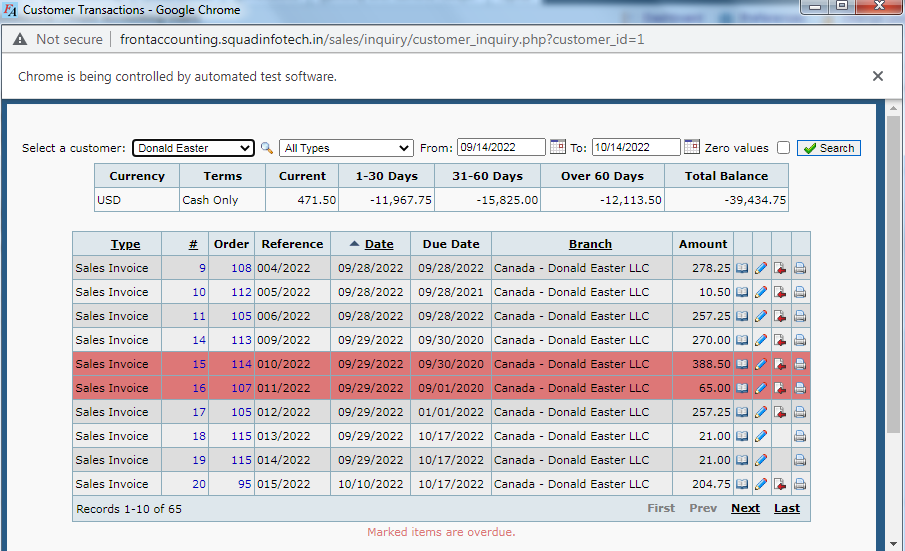
wd.findElement(By.xpath("/html/body/table[1]/tbody/tr/td/table[1]/tbody/tr/td/table/tbody/tr/td/table[2]/tbody/tr[1]/td[3]/a[5]/img")).click();

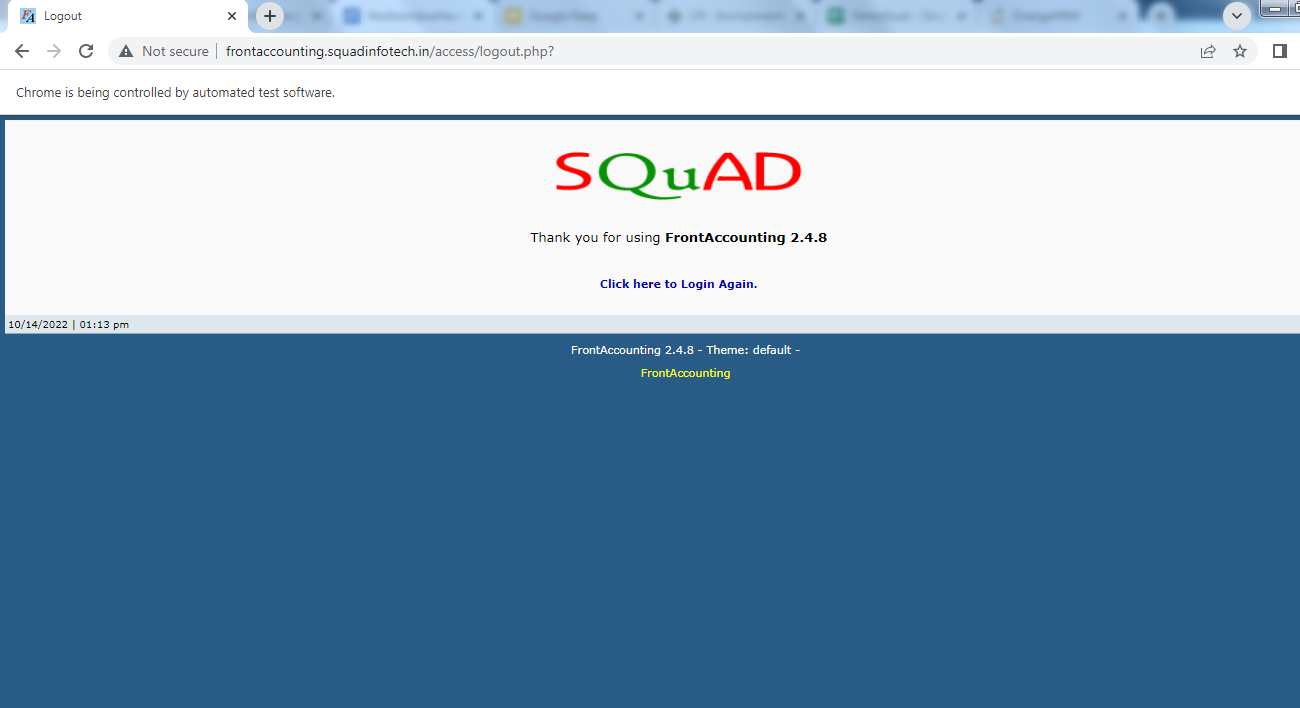
}

}

**Output:**







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**Q. 1) Demonstrate using TestNG framework test case skip feature using Selenium webdriver.**

**Source code:**

package TestNG;

import org.testng.SkipException;

import org.testng.annotations.Test;

public class DemoSkip {

@Test

public void login1() {

System.out.println("login1 check");

}

@Test

public void login2() {

System.out.println("login2 check");

throw new SkipException("login2 functionality is not available");

}

@Test

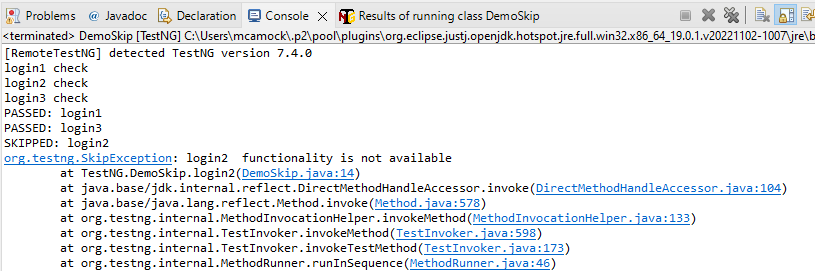
public void login3() {

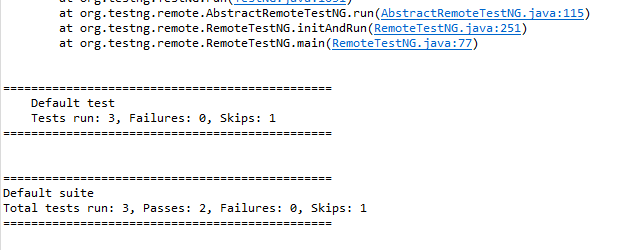
System.out.println("login3 check");

}

}

**Output:**

****

****

**Q. 2) Demonstrate using TestNG framework assert methods using Selenium webdriver.**

**Source code:**

package TestNG;

import org.testng.Assert;

import org.testng.annotations.Test;

public class demoAssert {

@Test

public void Login1() {

System.out.println("login1 check");

// Assert.assertEquals(1,4);

// Assert.assertTrue(2>4);

Assert.assertFalse(2>4);

}

@Test

public void Login2() {

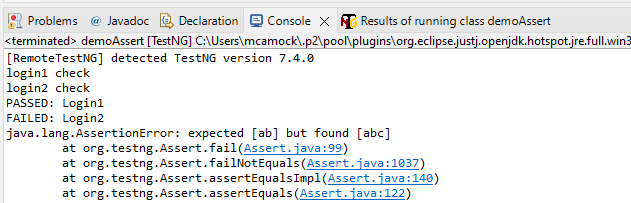
System.out.println("login2 check");

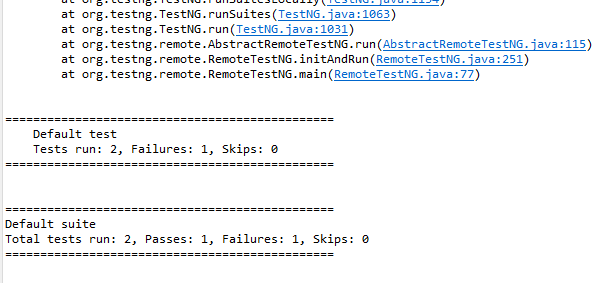
Assert.assertEquals("abc", "ab");

}

}

**Output:**

****

****

**Q. 3) Demonstrate using TestNG framework assert method on** [**https://opensource-demo.orangehrmlive.com**](https://opensource-demo.orangehrmlive.com) **welcome window after successful login using Selenium webdriver.**

**Check if the window title is “OrangeHRM” or not.**

**Source code:**

package TestNG;

import java.util.concurrent.TimeUnit;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.firefox.FirefoxDriver;

import org.testng.Assert;

import org.testng.annotations.AfterClass;

import org.testng.annotations.AfterSuite;

import org.testng.annotations.BeforeClass;

import org.testng.annotations.BeforeSuite;

import org.testng.annotations.Test;

public class AssertDemoOHM {

WebDriver wd;

@BeforeSuite

public void openbrowser() {

System.setProperty("webdriver.gecko.driver", "C:\\Selenium\\geckodriver.exe");

wd = new FirefoxDriver();

}

@BeforeClass

public void loginOHM() throws InterruptedException {

wd.get("https://opensource-demo.orangehrmlive.com/");

wd.manage().timeouts().implicitlyWait(5, TimeUnit.SECONDS);

wd.findElement(By.name("username")).sendKeys("admin");

Thread.sleep(1000);

wd.findElement(By.name("password")).sendKeys("admin123");

Thread.sleep(1000);

wd.findElement(By.cssSelector("button[type=submit]")).click();

}

@Test

public void OrangeHRM() {

String title = wd.getTitle();

System.out.println(title);

Assert.assertEquals(title, "OrangeHRM");;

}

@AfterClass

public void logout() throws Exception

{

wd.findElement(By.xpath("//\*[@id=\"app\"]/div[1]/div[1]/header/div[1]/div[2]/ul/li/span/p")).click();

Thread.sleep(1000);

wd.findElement(By.linkText("Logout")).click();

}

@AfterSuite

public void closebrowser()

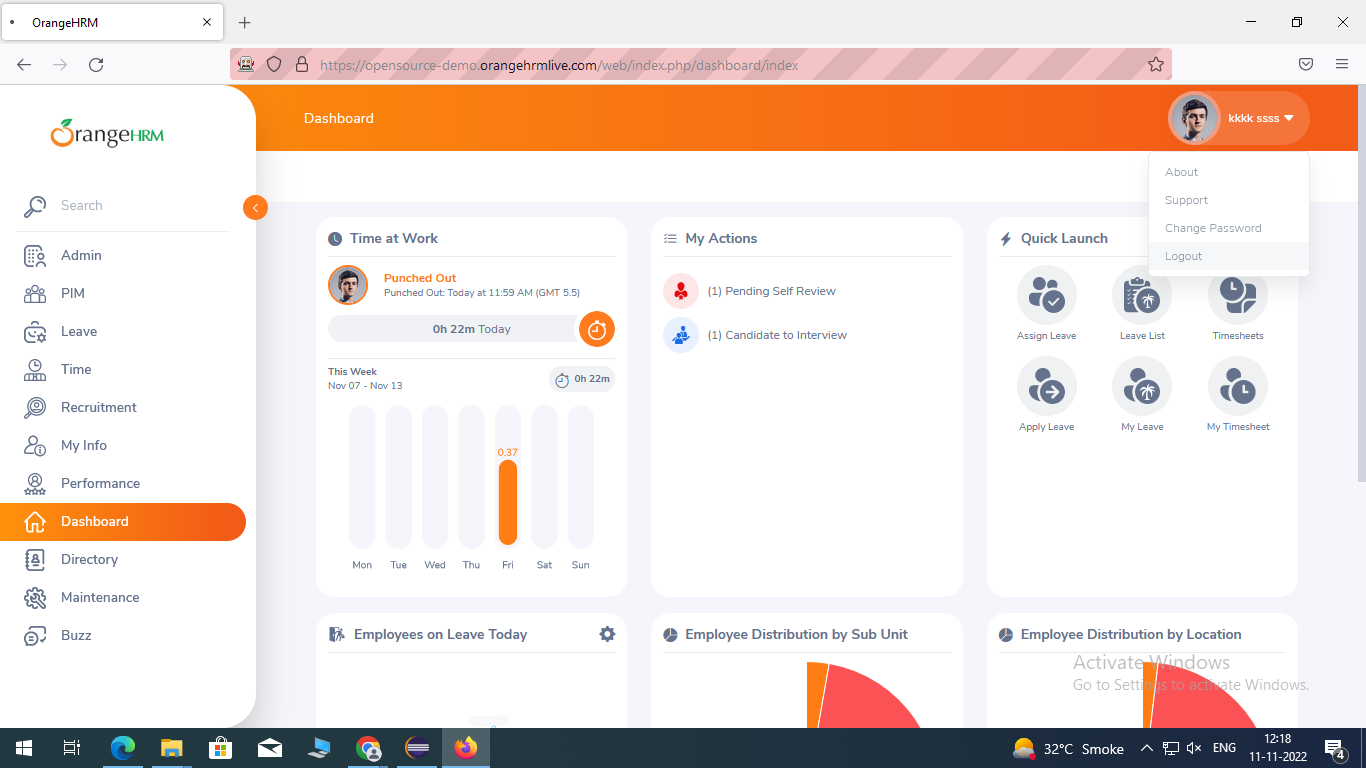
{

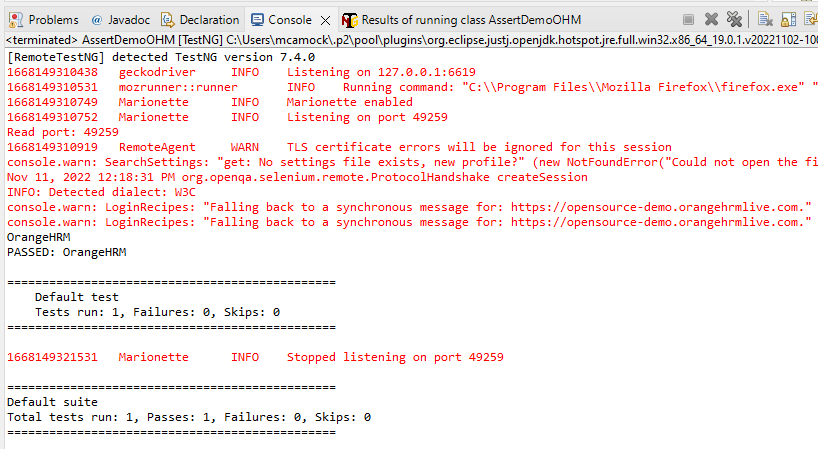
wd.quit();

}

}

**Output:**

****

****

**Q. 4) Demonstrate using TestNG framework test case priority using Selenium webdriver.**

**Source code:**

package TestNG;

import java.util.concurrent.TimeUnit;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.firefox.FirefoxDriver;

import org.testng.Assert;

import org.testng.annotations.AfterClass;

import org.testng.annotations.AfterSuite;

import org.testng.annotations.BeforeClass;

import org.testng.annotations.BeforeSuite;

import org.testng.annotations.Test;

public class AssertDemoOHM\_priority {

WebDriver wd;

@BeforeSuite

public void openbrowser() {

System.setProperty("webdriver.gecko.driver", "D:\\Selenium\\geckodriver.exe");

wd = new FirefoxDriver();

}

@BeforeClass

public void loginOHM() throws InterruptedException {

wd.get("https://opensource-demo.orangehrmlive.com/");

wd.manage().timeouts().implicitlyWait(5, TimeUnit.SECONDS);

wd.findElement(By.name("username")).sendKeys("Admin");

Thread.sleep(1000);

wd.findElement(By.name("password")).sendKeys("admin123");

Thread.sleep(1000);

wd.findElement(By.cssSelector("button[type=submit]")).click();

}

@Test(priority = 2)

public void Admin() {

wd.findElement(By.xpath("//\*[@id=\"app\"]/div[1]/div[1]/aside/nav/div[2]/ul/li[1]/a/span")).click();

System.out.println("admin");

}

@Test(priority = 1)

public void PIM() {

wd.findElement(By.xpath("//\*[@id=\"app\"]/div[1]/div[1]/aside/nav/div[2]/ul/li[2]/a/span")).click();

System.out.println("PIM");

}

@Test(priority = 3)

public void Leave() {

wd.findElement(By.xpath("//\*[@id=\"app\"]/div[1]/div[1]/aside/nav/div[2]/ul/li[3]/a/span")).click();

System.out.println("Leave");

}

@AfterClass

public void logout() throws Exception

{

wd.findElement(By.xpath("//\*[@id=\"app\"]/div[1]/div[1]/header/div[1]/div[2]/ul/li/span/p")).click();

Thread.sleep(1000);

wd.findElement(By.linkText("Logout")).click();

}

@AfterSuite

public void closebrowser()

{

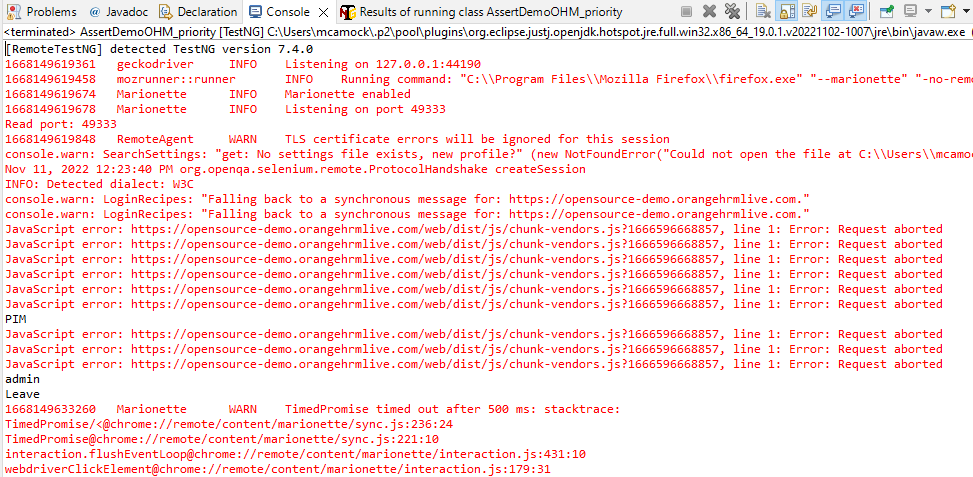
wd.quit();

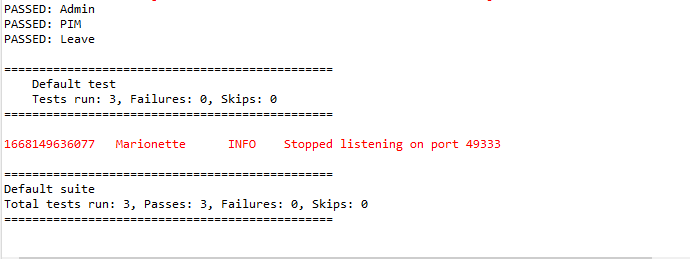
}

}

**Output:**

****

****

****

**Q. 5) Demonstrate using TestNG framework the mentioned navigation on** [**https://opensource-demo.orangehrmlive.com**](https://opensource-demo.orangehrmlive.com) **welcome window after successful login using Selenium webdriver.**

**Once a user successfully logs in, the dashboard is displayed. Perform automation on login, display PIM menu details, after a delay display Myinfo menu details, and successful logout from web app.**

**Source code:**

package TestNG;

import java.util.concurrent.TimeUnit;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.firefox.FirefoxDriver;

import org.testng.Assert;

import org.testng.annotations.AfterClass;

import org.testng.annotations.AfterSuite;

import org.testng.annotations.BeforeClass;

import org.testng.annotations.BeforeSuite;

import org.testng.annotations.Test;

public class AssertDemoOHM\_priority {

WebDriver wd;

@BeforeSuite

public void openbrowser() {

System.setProperty("webdriver.gecko.driver", "C:\\Selenium\\geckodriver.exe");

wd = new FirefoxDriver();

}

@BeforeClass

public void loginOHM() throws InterruptedException {

wd.get("https://opensource-demo.orangehrmlive.com/");

wd.manage().timeouts().implicitlyWait(5, TimeUnit.SECONDS);

wd.findElement(By.name("username")).sendKeys("Admin");

Thread.sleep(1000);

wd.findElement(By.name("password")).sendKeys("admin123");

Thread.sleep(1000);

wd.findElement(By.cssSelector("button[type=submit]")).click();

}

@Test(priority = 2)

public void Admin() {

wd.findElement(By.xpath("//\*[@id=\"app\"]/div[1]/div[1]/aside/nav/div[2]/ul/li[1]/a/span")).click();

System.out.println("admin");

}

@Test(priority = 1)

public void PIM() {

wd.findElement(By.xpath("//\*[@id=\"app\"]/div[1]/div[1]/aside/nav/div[2]/ul/li[2]/a/span")).click();

System.out.println("PIM");

}

@Test(priority = 3)

public void Leave() {

wd.findElement(By.xpath("//\*[@id=\"app\"]/div[1]/div[1]/aside/nav/div[2]/ul/li[3]/a/span")).click();

System.out.println("Leave");

}

@AfterClass

public void logout() throws Exception

{

wd.findElement(By.xpath("//\*[@id=\"app\"]/div[1]/div[1]/header/div[1]/div[2]/ul/li/span/p")).click();

Thread.sleep(1000);

wd.findElement(By.linkText("Logout")).click();

}

@AfterSuite

public void closebrowser()

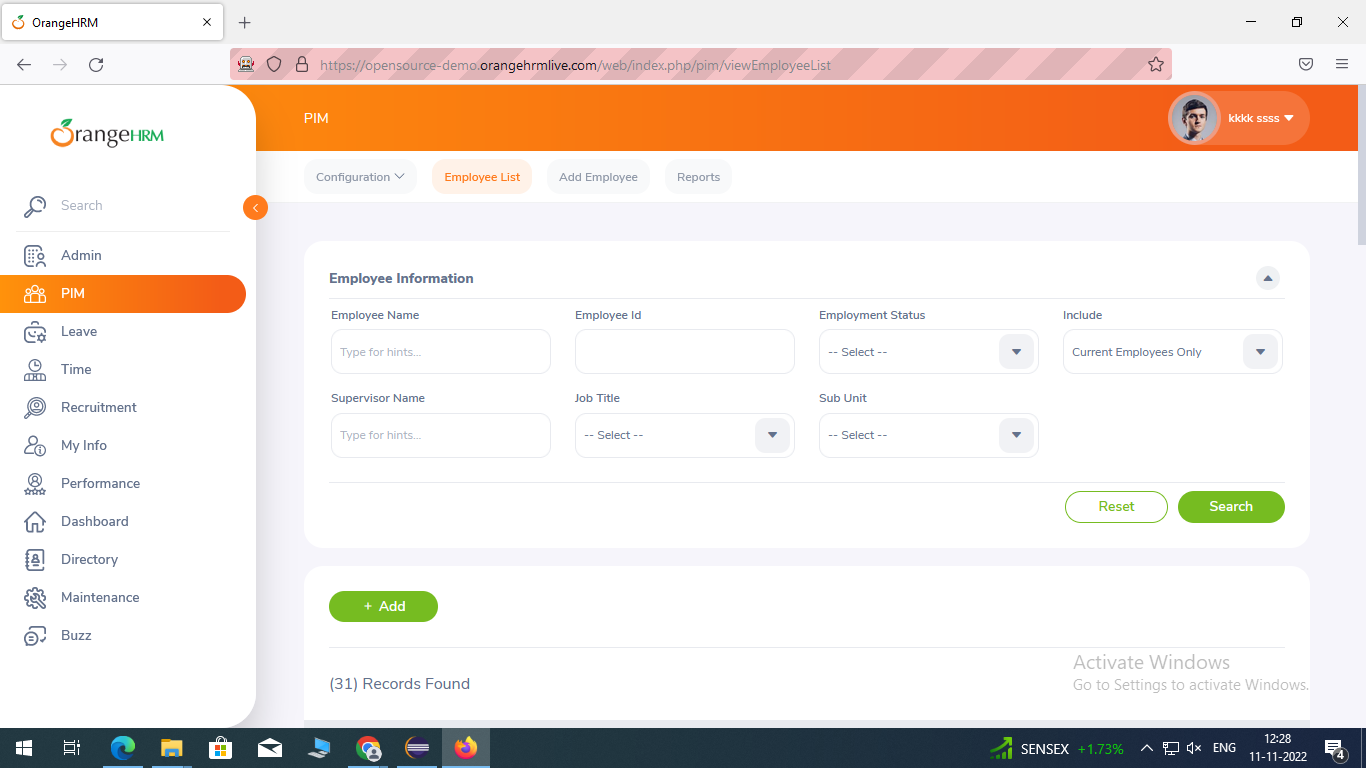
{

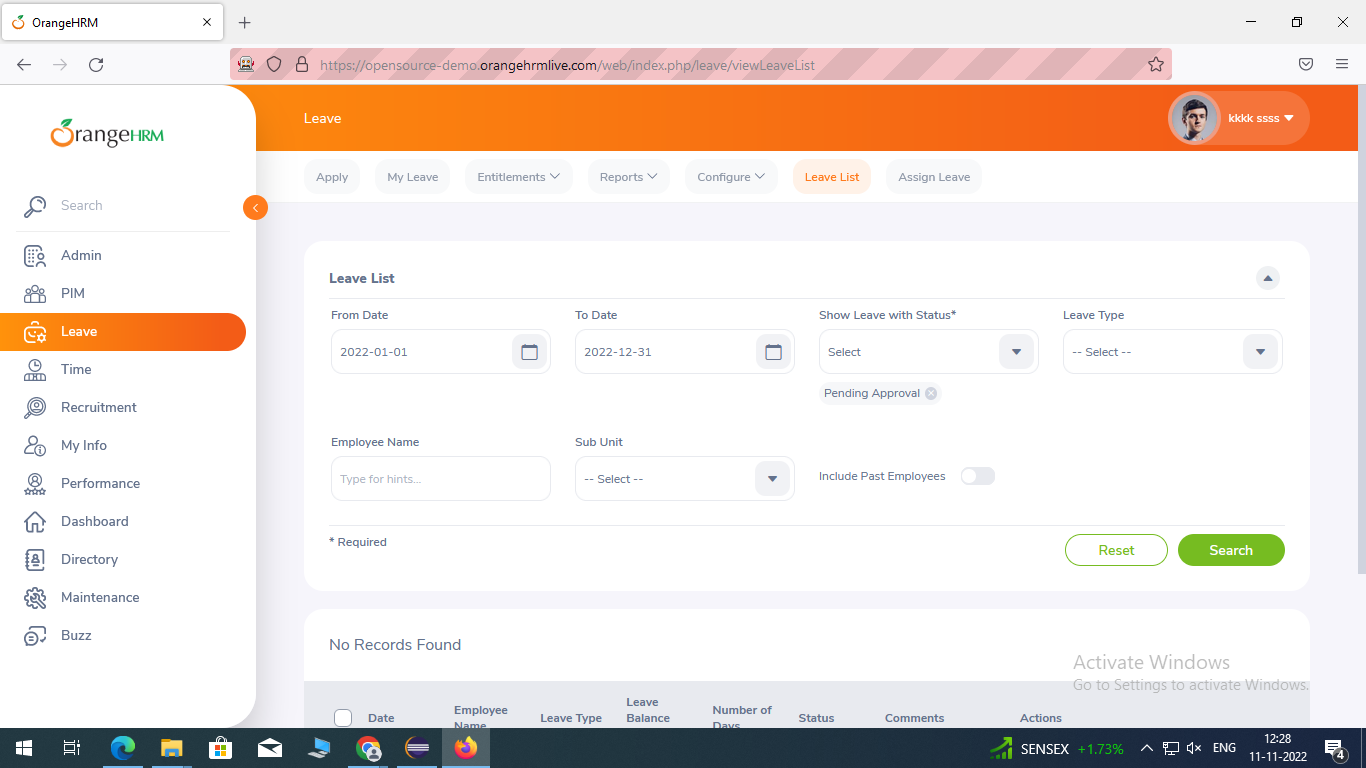
wd.quit();

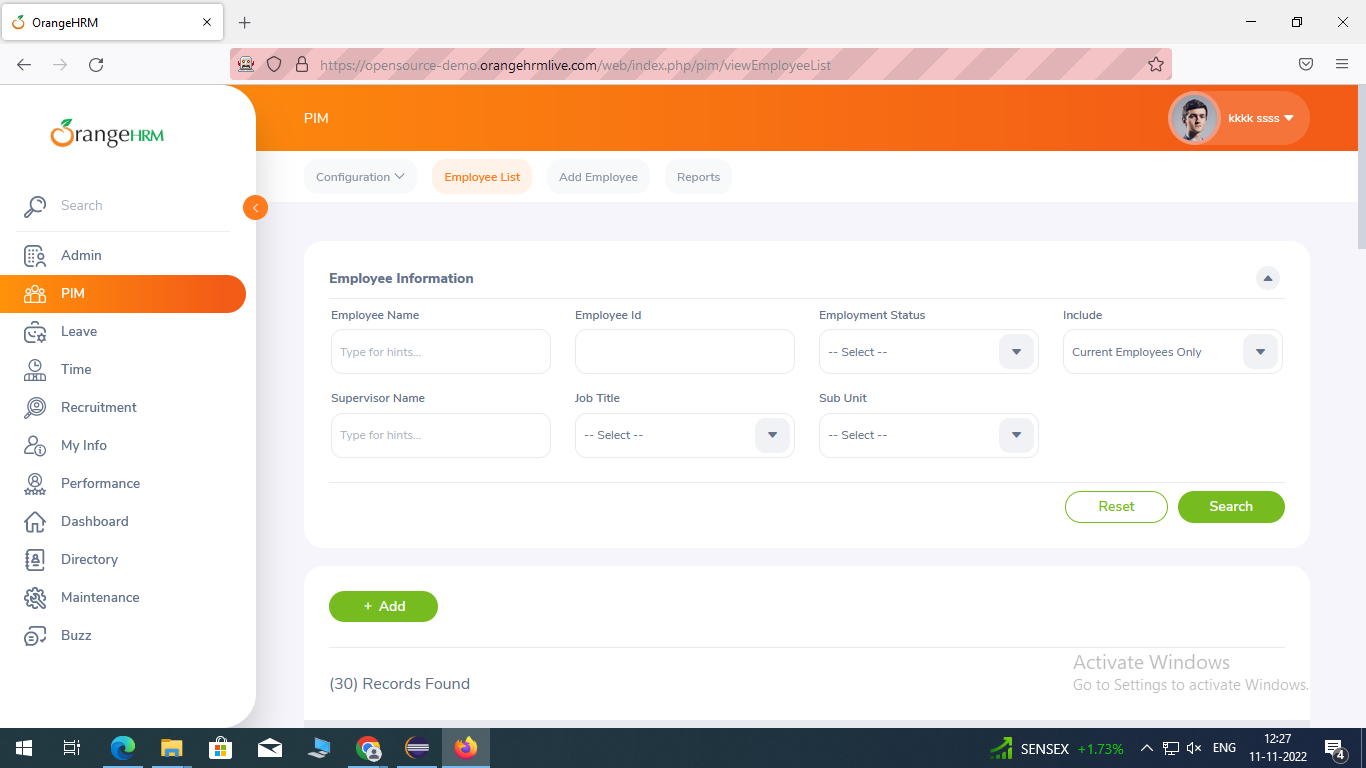
}

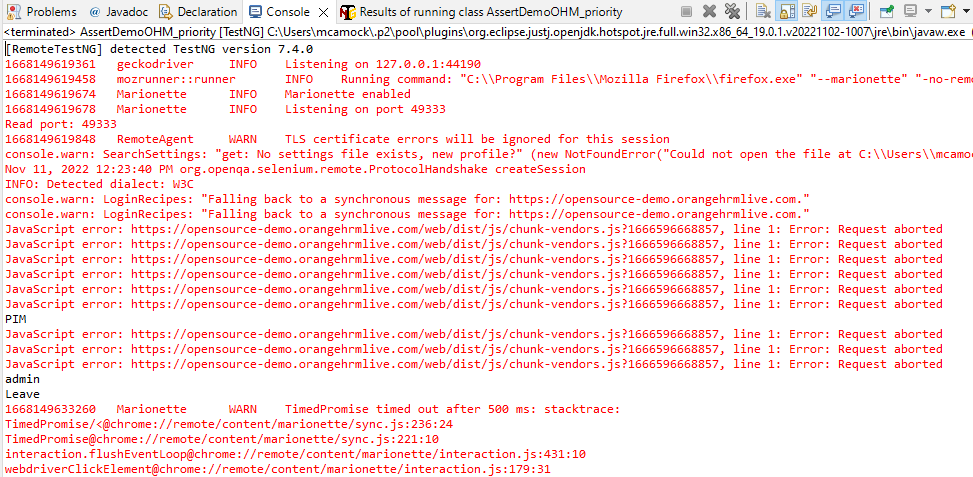
}

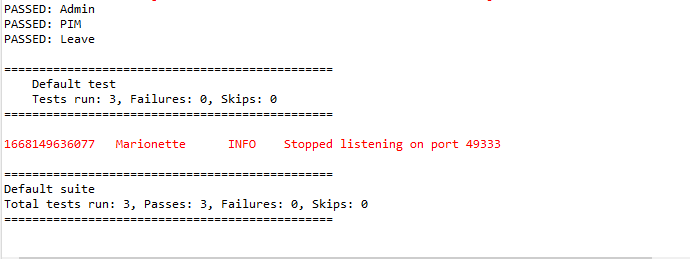
**Output:**

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**Q. 1) Demonstrate bus search from MUMBAI to PUNE on date 05-12-2022. For this use the web link** [**https://www.vrlbus.in/**](https://www.vrlbus.in/) **Automate the task using selenium web driver.**

**Source code:**

package TestNG;

import java.util.concurrent.TimeUnit;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.firefox.FirefoxDriver;

import org.testng.annotations.AfterClass;

import org.testng.annotations.AfterSuite;

import org.testng.annotations.BeforeClass;

import org.testng.annotations.BeforeSuite;

import org.testng.annotations.Test;

public class VRL {

WebDriver wd;

@BeforeSuite

public void openbrowser() {

System.setProperty("webdriver.gecko.driver", "C:\\Selenium\\geckodriver.exe");

wd = new FirefoxDriver();

}

@BeforeClass

public void openVRL() throws Exception

{

wd.get("https://www.vrlbus.in/");

wd.manage().timeouts().implicitlyWait(5, TimeUnit.SECONDS);

}

@Test

public void searchBus() throws Exception

{

wd.findElement(By.name("source\_city")).sendKeys("mumbai");

Thread.sleep(1000);

wd.findElement(By.name("destination\_city")).sendKeys("pune");

Thread.sleep(1000);

wd.findElement(By.name("TRIPSTARTDATE")).click();

Thread.sleep(1000);

wd.findElement(By.xpath("//\*[@id=\"ui-datepicker-div\"]/div/a[2]/span")).click();

Thread.sleep(1000);

wd.findElement(By.xpath("//\*[@id=\"ui-datepicker-div\"]/table/tbody/tr[2]/td[2]/a")).click();

Thread.sleep(6000);

wd.findElement(By.name("Button2")).click();

}

@AfterSuite

public void closebrowser()

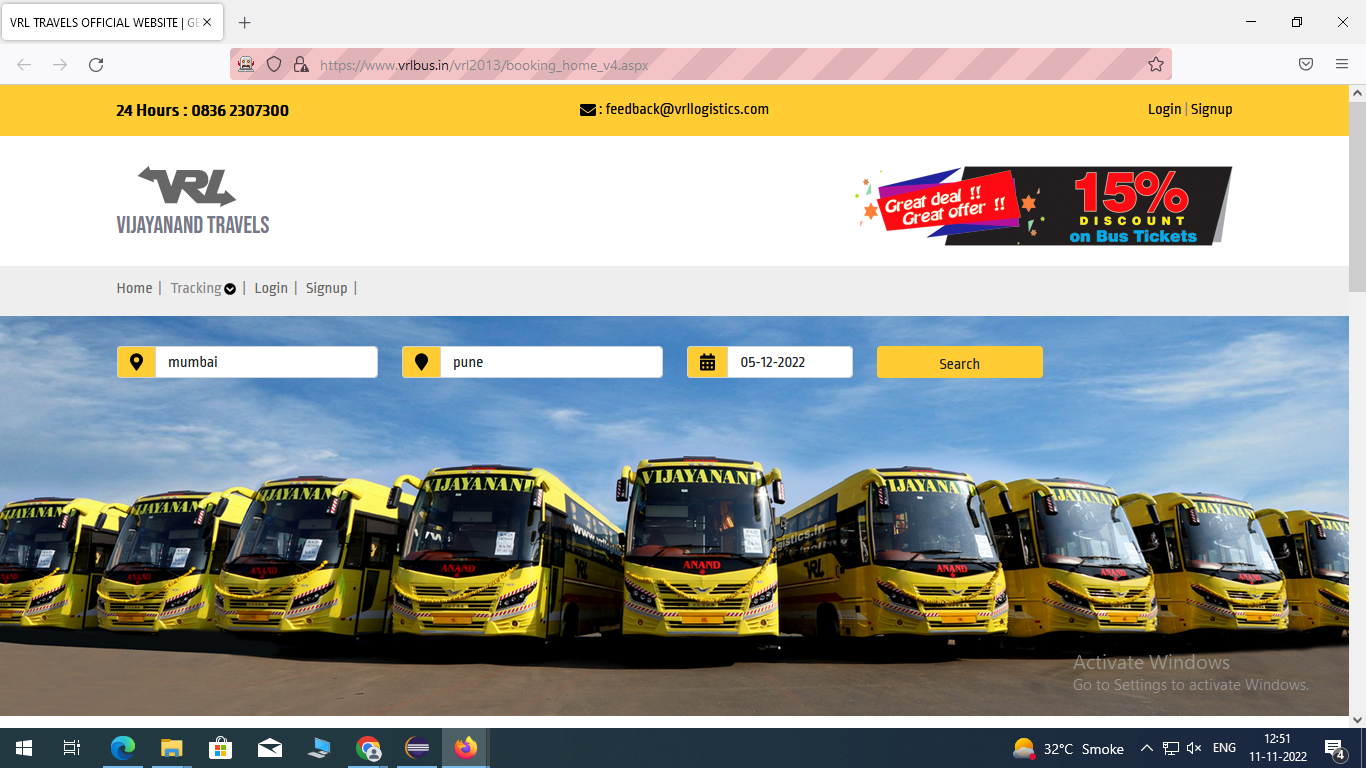
{

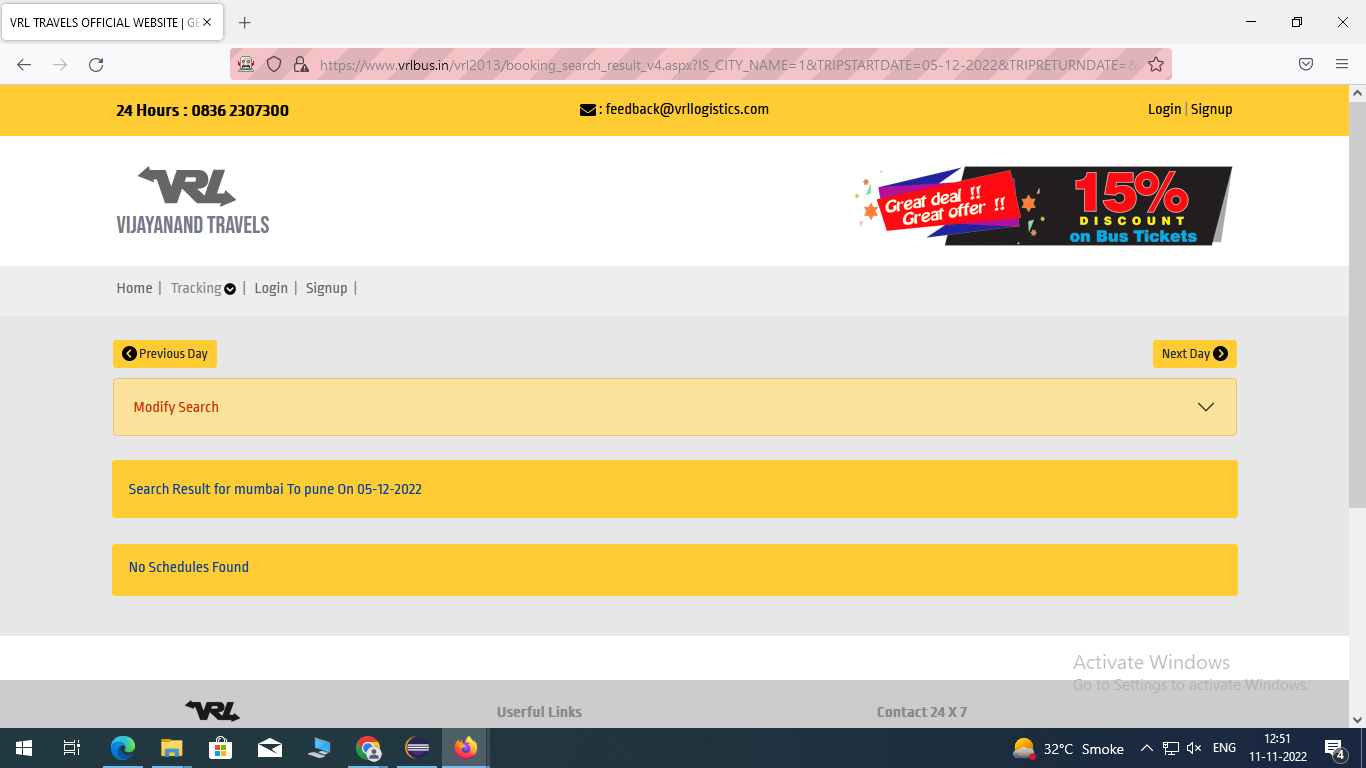
wd.quit();

}

}

**Output:**

****

****

**Q. 2) Demonstrate regression testing using TestNG framework. Use at least two classes e.g. ClassADemo and ClassBDemo to demonstrate regression testing by adding a few test cases in the existing test suite.**

**Source code:**

**ClassADemo.java**

package TestNGTwo;

import org.testng.annotations.Test;

public class ClassADemo {

@Test

public void test1() {

System.out.println("Test 1 executed");

}

@Test

public void test2() {

System.out.println("Test 2 executed");

}

@Test

public void test3() {

System.out.println("Test 3 executed");

}

}

**ClassBDemo.java**

package TestNGTwo;

import org.testng.annotations.Test;

public class ClassBDemo {

@Test

public void f1() {

System.out.println("f1 executed");

}

@Test

public void f2() {

System.out.println("f2 executed");

}

@Test

public void f3()

{

System.out.println("f3 executed");

}

}

**RegressionTesting.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">

<classes>

<class name="TestNGTwo.ClassADemo"/>

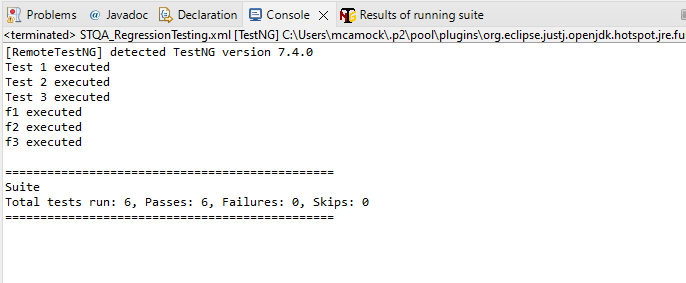
<class name="TestNGTwo.ClassBDemo"/>

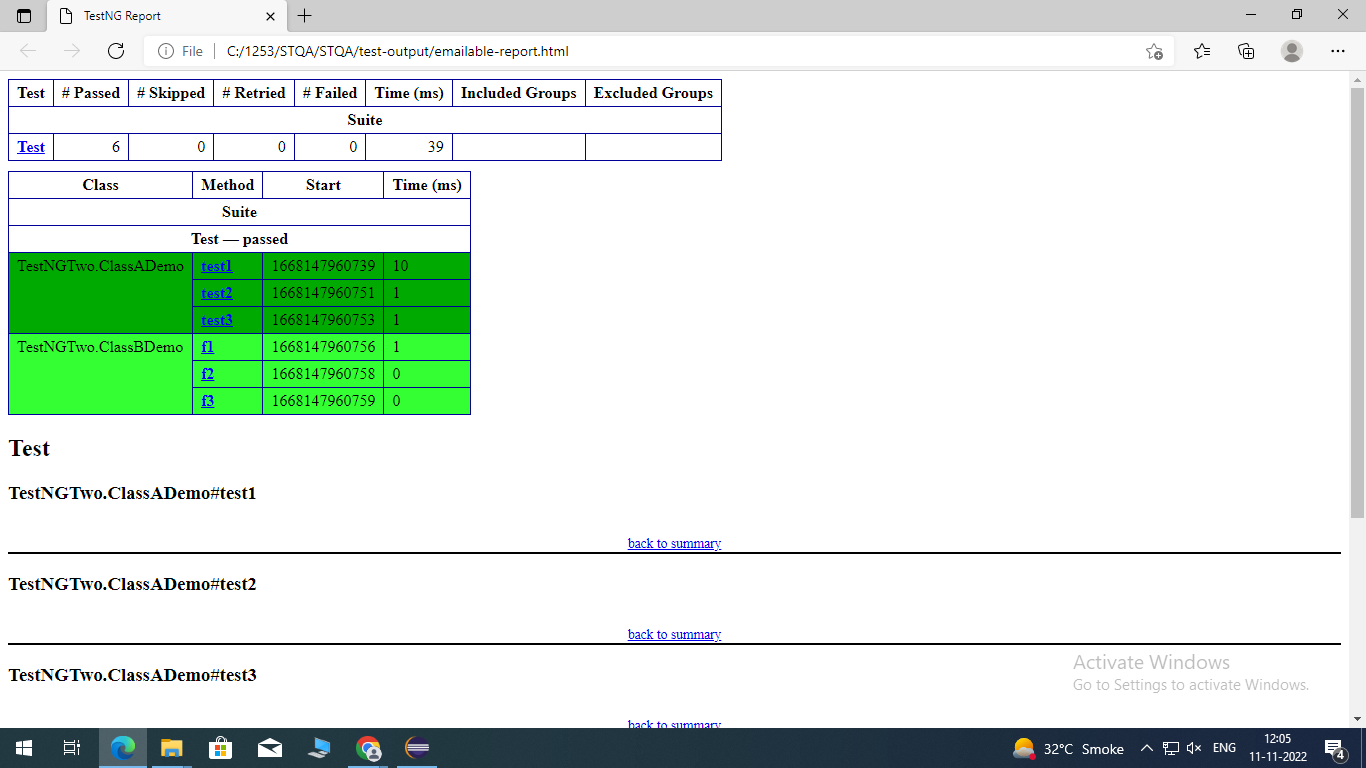
</classes>

</test> <!-- Test -->

</suite> <!-- Suite -->

**Output:**

****



**Q. 3) Differentiate between Quality Assurance and Quality Control.**

**Answer:**

|  | **Quality Assurance** | **Quality Control** |
| --- | --- | --- |
| **1.** | Differentiate between Quality Assurance and Quality Control. | It focuses on fulfilling the quality requested. |
| **2.** | It is the technique of managing quality. | It is the technique to verify quality. |
| **3.** | It is involved during the development phase. | It is not included during the development phase. |
| **4.** | It does not include the execution of the program. | It always includes the execution of the program. |
| **5.** | It is a managerial tool. | It is a corrective tool. |
| **6.** | It is process oriented. | It is product oriented. |
| **7.** | It is a preventive technique. | It is a corrective technique. |
| **8.** | It is a proactive measure. | It is a reactive measure. |
| **9.** | All team members of the project are involved. | Generally, the testing team of the project is involved. |
| **10.** | Example: Verification. | Example: Validation. |

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**Q. 1) Implement Action Demo on https://opensource-demo.orangehrmlive.com/ (Add admin user using automation tool) using Selenium webdriver.**

**Source code:**

**package DemoPrograms;**

**import java.util.List;**

**import java.util.concurrent.TimeUnit;**

**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.interactions.Actions;**

**public class ActionDemo {**

**public static void main(String[] args) {**

**// TODO Auto-generated method stub**

**System.setProperty("webdriver.chrome.driver", "D:\\Selenium\\chromedriver.exe");**

**WebDriver wd = new ChromeDriver();**

**wd.get("https://opensource-demo.orangehrmlive.com/web/index.php/auth/login");**

**wd.manage().window().maximize();**

**wd.manage().timeouts().implicitlyWait(10,TimeUnit.SECONDS);**

**wd.findElement(By.name("username")).sendKeys("Admin");**

**wd.findElement(By.name("password")).sendKeys("admin123");**

**wd.findElement(By.cssSelector("button[type=submit]")).click();**

**Actions act = new Actions(wd);**

**List<WebElement> menu = wd.findElements(By.className("oxd-main-menu-item-wrapper"));**

**for(int i=0; i<=menu.size()-1; i++)**

**{**

**System.out.println(menu.get(i).getText());**

**act.moveToElement(menu.get(i)).perform();**

**}**

**wd.findElement(By.xpath("//\*[@id=\"app\"]/div[1]/div[1]/aside/nav/div[2]/ul/li[1]/a/span")).click();**

**List<WebElement> submenu = wd.findElements(By.className("oxd-topbar-body-nav-tab-item"));**

**for(int i=0; i<=submenu.size()-1; i++)**

**{**

**System.out.println(submenu.get(i).getText());**

**act.moveToElement(submenu.get(i)).perform();**

**}**

**wd.findElement(By.xpath("//\*[@id=\"app\"]/div[1]/div[1]/header/div[1]/div[2]/ul/li/span/p")).click();**

**wd.findElement(By.linkText("Logout")).click();**

**wd.quit();**

**}**

**}**

**Output:**

**Q. 2) Implement alert demo on website http://frontaccounting.squadinfotech.in/index.php using Selenium webdriver. (Username: frontuser1, Password: frontuser1, and Company: Squad\_MT\_OL-191)**

**Source code:**

**package DemoPrograms;**

**import java.util.concurrent.TimeUnit;**

**import org.openqa.selenium.Alert;**

**import org.openqa.selenium.By;**

**import org.openqa.selenium.WebDriver;**

**import org.openqa.selenium.chrome.ChromeDriver;**

**import org.openqa.selenium.support.ui.Select;**

**public class AlertDemo {**

**public static void main(String[] args) throws Exception {**

**// TODO Auto-generated method stub**

**System.setProperty("webdriver.chrome.driver", "D:\\Selenium\\chromedriver.exe");**

**WebDriver wd = new ChromeDriver();**

**wd.get("http://frontaccounting.squadinfotech.in/");**

**wd.manage().window().maximize();**

**wd.findElement(By.name("user\_name\_entry\_field")).sendKeys("frontuser1");**

**wd.findElement(By.name("password")).sendKeys("frontuser1");**

**// Select s= new Select(wd.findElement(By.name("company\_login\_name")));**

**// s.selectByVisibleText("Squad\_MT\_191");**

**wd.findElement(By.xpath("//\*[@id=\"\_page\_body\"]/form/center[1]/table/tbody/tr[5]/td[2]/select/option[15]")).click();**

**wd.findElement(By.name("SubmitUser")).click();**

**wd.findElement(By.xpath("/html/body/table[1]/tbody/tr/td/table[1]/tbody/tr/td/table/tbody/tr/td/table[2]/tbody/tr[1]/td[3]/a[5]")).click();**

**Alert alt = wd.switchTo().alert();**

**System.out.println("Alert text ==>"+alt.getText());**

**Thread.sleep(1000);**

**//alt.accept();**

**alt.dismiss();**

**Thread.sleep(1000);**

**wd.findElement(By.linkText("Click here to Login Again.")).click();**

**}**

**}**

**Output:**

**Q. 3) Implement window handling demo on website http://frontaccounting.squadinfotech.in/index.php using Selenium webdriver.**

**Source code:**

**package DemoPrograms;**

**import java.util.Set;**

**import java.util.concurrent.TimeUnit;**

**import org.openqa.selenium.By;**

**import org.openqa.selenium.WebDriver;**

**import org.openqa.selenium.chrome.ChromeDriver;**

**import org.openqa.selenium.support.ui.Select;**

**public class WindowHandlingDemo {**

**public static void main(String[] args) throws Exception {**

**// Window handling**

**System.setProperty("webdriver.chrome.driver", "D:\\Selenium\\chromedriver.exe");**

**WebDriver wd = new ChromeDriver();**

**wd.manage().window().maximize();**

**wd.get("http://frontaccounting.squadinfotech.in/");**

**wd.manage().timeouts().implicitlyWait(10,TimeUnit.SECONDS);**

**wd.findElement(By.name("user\_name\_entry\_field")).sendKeys("frontuser1");**

**wd.findElement(By.name("password")).sendKeys("frontuser1");**

**Select s= new Select(wd.findElement(By.name("company\_login\_name")));**

**s.selectByVisibleText("Squad\_MT\_191");**

**wd.findElement(By.name("SubmitUser")).click();**

**Thread.sleep(1000);**

**//sales quotation entry**

**wd.findElement(By.partialLinkText("uotation Entry")).click();**

**String Pid = wd.getWindowHandle();**

**System.out.println("Parent Window-->"+Pid);**

**wd.findElement(By.xpath("/html/body/table[1]/tbody/tr/td/table[1]/tbody/tr/td/div[2]/form/center[1]/table/tbody/tr/td[2]/table/tbody/tr[1]/td[2]/a")).click();**

**Set<String> allwin = wd.getWindowHandles();**

**for(String W:allwin)**

**{**

**wd.switchTo().window(W);**

**System.out.println(wd.getTitle());**

**Thread.sleep(1000);**

**if(!W.equals(Pid))**

**{**

**Select ss = new Select(wd.findElement(By.id("customer\_id")));**

**ss.selectByIndex(0);**

**Thread.sleep(1000);**

**wd.manage().window().maximize();**

**wd.close();**

**}**

**wd.switchTo().window(Pid);**

**Thread.sleep(1000);**

**wd.findElement(By.linkText("Logout")).click();**

**wd.close();**

**}**

**}**

**}**

**Output:**