Test Objective:

The objective is to automate the below testcase using selenium WebDriver and framework concepts.

Testcase: Tc04

Process: Search Return Actions

Steps to Execute:

Step1: Login to admin portal

Step2: Navigate to System section->returns option

Step3:Choose Return Actions

Step4:Search for text “refund”

Expected Results: Verify the search is displayed data with “refund” keyword or not and when no match check the No matching records found”

Source code:

File1: `ReturnAction.java`

```
package com.ibm.groceries;
import java.io.File;
import java.io.FileInputStream;
import java.io.FileNotFoundException;
import java.io.FileOutputStream;
import java.io.IOException;
import java.util.Date;
import java.util.HashMap;
import java.util.Properties;
import java.util.Set;
import java.util.concurrent.TimeUnit;
import org.apache.commons.io.FileUtils;
import org.openqa.selenium.By;
import org.openqa.selenium.OutputType;
import org.openqa.selenium.TakesScreenshot;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.firefox.FirefoxDriver;
import org.openqa.selenium.ie.InternetExplorerDriver;
import org.openqa.selenium.support.ui.ExpectedConditions;
import org.openqa.selenium.support.ui.WebDriverWait;
import org.testng.Assert;
import org.testng.Reporter;
import org.testng.annotations.AfterMethod;
import org.testng.annotations.AfterTest;
import org.testng.annotations.BeforeMethod;
import org.testng.annotations.BeforeSuite;
import org.testng.annotations.BeforeTest;
import org.testng.annotations.Optional;
import org.testng.annotations.Parameters;
import org.testng.annotations.Test;
import com.ibm.groceriespages.PageLogin;
import com.ibm.groceriespages.ReturnActionsPage;
import com.ibm.groceriespages.PageDashboard;
import com.ibm.initialization.WebDriverLaunch;
import com.ibm.utilities.PropertiesFileHandler;
import jdk.nashorn.internal.runtime.PrototypeObject;


public class ReturnAction extends WebDriverLaunch{

        @Test(priority=1, testName="CheckDeleteProduct",groups="low")
        //@Test(testName="CheckDeleteProduct",enabled=false)
        public void searchReturnAction()throws IOException,InterruptedException
        {
                String url=data.get("url");
                String userName = data.get("username");
                String password = data.get("password");
                String searchKeyword=data.get("searchForKeyword");
                String searchMessage=data.get("searchDispalyMessage");
                String noMatchMessage=data.get("noMatchDisplayMessage");

                //Launching the web site for atozgroceries
                driver.get(url);

                PageLogin login = new PageLogin(driver, wait);
                //To enter email address and password and clickon login button
                login.enterEmailAddress(userName);
                login.enterPassword(password);
                login.clickOnLogin();

        Assert.assertTrue(driver.findElement(By.partialLinkText("Logout")).isDisplayed
());

                PageDashboard dashboard=new PageDashboard(driver, wait);
                //calling method to click on System link
                dashboard.clickOnsystem();

                //calling method to click on Returns link
                dashboard.clickOnReturns();

                //Calling method to click on Return Actions link
                dashboard.clickOnRetrunActions();


                ReturnActionsPage action=new ReturnActionsPage(driver,wait);
                //Calling method to search for keyword
                String pageSource=action.searchAction(searchKeyword);
                //String pageSource2=pageSource.compareToIgnoreCase(searchKeyword);

                pageSource=pageSource.toLowerCase();
                searchKeyword=searchKeyword.toLowerCase();
                //System.out.println("Page source is "+pageSource);

                if(pageSource.contains(searchKeyword))
```

```
              {
              System.out.println(searchMessage);
              Assert.assertTrue(pageSource.contains(searchKeyword));
              }
              else if(pageSource.contains(noMatchMessage))
              {
                     System.out.println(noMatchMessage);
                     Assert.assertTrue(pageSource.contains(noMatchMessage));
              }
       }


}
```

File2: PageLogin.java

```
package com.ibm.groceriespages;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.support.FindBy;
import org.openqa.selenium.support.PageFactory;
import org.openqa.selenium.support.ui.ExpectedConditions;
import org.openqa.selenium.support.ui.WebDriverWait;

public class PageLogin {

       @FindBy(name="email")
       WebElement emailEle;

       @FindBy(name="pword")
       WebElement passEle;

       //@FindBy(className="btn btn-labeled btn-info m-b-5")
       @FindBy(xpath="//button[@class='btn btn-labeled btn-info m-b-5']")
       WebElement loginEle;

       WebDriverWait wait;
       WebDriver driver;

       public PageLogin(WebDriver driver,WebDriverWait wait)
       {
              PageFactory.initElements(driver, this);
              this.driver=driver;
              this.wait=wait;
       }

       //To enter email address
       public void enterEmailAddress(String userName)
       {
              emailEle.sendKeys(userName);
       }

       //To enter apssword
       public void enterPassword(String password)
```

```
        {
            passEle.sendKeys(password);
        }

        //To click on Login button
        public void clickOnLogin()
        {
            loginEle.click();

        }

}
```

File3: PageDashboard.java

```
package com.ibm.groceriespages;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.WebElement;

import org.openqa.selenium.support.FindBy;

import org.openqa.selenium.support.PageFactory;

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

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


public class PageDashboard {


        //@FindBy(xpath="//a[@class='material-ripple']")

        @FindBy(xpath="//a[text()=' Catalog']")

        WebElement catalogEle;


        @FindBy(xpath="//a[text()=' Products']")

        WebElement productEle;


        By prodElt=By.xpath("//a[text()=' Products']");

        WebDriverWait wait;
```

```
WebDriver driver;


//Locating elements for Marketing link
@FindBy(xpath="//a[text()='  Marketing']")
WebElement marketEle;

//Locating Pushnotification link
@FindBy(xpath="//a[text()=' Push Notification']")
WebElement notificatonEle;



//Locating System link
@FindBy(xpath="//a[text()='   System']")
WebElement systemEle;

//Locating Returns link
@FindBy(xpath="//a[text()='  Returns']")
//@FindBy(xpath("//a[contains(text(),'Returns')]"))
WebElement returnsEle;




@FindBy(xpath="//a[text()=' Return Actions']")
WebElement actionsEle;

public PageDashboard(WebDriver driver,WebDriverWait wait) {
	PageFactory.initElements(driver, this);
	this.driver=driver;
	this.wait=wait;
```

```
}


//To click on Catalog
public void clickOnCatalog()
{
        catalogEle.click();
        wait.until(ExpectedConditions.presenceOfElementLocated(prodElt));


        }
//To click on Products
public void clickOnProducts()
        {
        productEle.click();


}




//To click on Marketing link
public void clickOnMarketing()
{


        marketEle.click();


}


//To click on Push Notificatoin link
public void clickOnPushNotification()
{
        notificatonEle.click();
```

```
    }


        //TO click on System link
    public void clickOnsystem()
    {
        systemEle.click();


    }


    //To click on Retuns link
    public void clickOnReturns()
    {
        driver.findElement(By.partialLinkText("Returns")).click();
        //returnsEle.click();
    }


    //To click on Return actoins link
    public void clickOnRetrunActions()


    {
        actionsEle.click();
    }


}
```

File4: ReturnActionsPage.java

```
package com.ibm.groceriespages;

import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.support.FindBy;
import org.openqa.selenium.support.PageFactory;
import org.openqa.selenium.support.ui.WebDriverWait;

public class ReturnActionsPage {
	@FindBy(xpath="//input[@class='form-control input-sm']")
	WebElement searchEle;


	WebDriverWait wait;
	WebDriver driver;

	public ReturnActionsPage(WebDriver driver,WebDriverWait wait) {
		PageFactory.initElements(driver, this);
		this.driver=driver;
		this.wait=wait;
	}

	public String searchAction(String searchKeyword)
	{
		searchEle.sendKeys(searchKeyword);
		return driver.getPageSource();
	}

}
```

File5: WebDriverLaunch.java

```
package com.ibm.initialization;



import java.io.IOException;

import java.util.HashMap;

import java.util.concurrent.TimeUnit;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

import org.openqa.selenium.firefox.FirefoxDriver;

import org.openqa.selenium.ie.InternetExplorerDriver;

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

import org.testng.annotations.AfterMethod;
import org.testng.annotations.BeforeMethod;
import org.testng.annotations.BeforeSuite;
import org.testng.annotations.BeforeTest;
import org.testng.annotations.Optional;
import org.testng.annotations.Parameters;
import com.ibm.utilities.PropertiesFileHandler;

public class WebDriverLaunch {
    public WebDriver driver;
    public WebDriverWait wait;
    public PropertiesFileHandler propFileHandler;
    public HashMap<String, String> data;

    //Getting the keys from properties file
    //@BeforeSuite
    @BeforeSuite(groups= {"high","low"})
        public void preSetForTest() throws IOException {
        String file = "./TestData/groceries.properties";
        propFileHandler = new PropertiesFileHandler();
        data = propFileHandler.getPropertiesAsMap(file);
    }



    //@BeforeTest


    @BeforeMethod(groups= {"high","low"})
    @Parameters({"browser"})
    public void Initialization(@Optional("ff")String browser) {
        browserInitialization(browser);
        wait = new WebDriverWait(driver, 60);
        driver.manage().window().maximize();
        driver.manage().timeouts().implicitlyWait(30, TimeUnit.SECONDS);
    }



    //@AfterMethod
    //Closing driver
    @AfterMethod(groups= {"high","low"})
    public void closeBrowser() {
        driver.quit();
    }

    //Setting path for webdriver
    public void browserInitialization(String browser)
    {
        switch (browser.toLowerCase()) {
        case "ff":
        case "firefox":
                System.setProperty("webdriver.gecko.driver", "./drivers/geckodriver.exe");
                driver = new FirefoxDriver();
                break;
        case "ch":
                System.setProperty("webdriver.chrome.driver", "./drivers/chromedriver.exe");
                driver = new ChromeDriver();
                break;
        case "ie":
                System.setProperty("webdriver.ie.driver", "./drivers/IEDriverServer.exe");
                driver = new InternetExplorerDriver();
```

```
            break;
        default:
            System.out.println("No browser Available "+browser);
            break;
        }
    }
}
```

File6: PropertiesFileHandler.java

```
package com.ibm.utilities;

import java.io.File;
import java.io.FileInputStream;
import java.io.FileOutputStream;
import java.io.IOException;
import java.util.HashMap;
import java.util.Properties;
import java.util.Set;

public class PropertiesFileHandler {
    public HashMap<String, String> getPropertiesAsMap(String file) throws IOException {
        HashMap<String, String> magentoMap = new HashMap<String, String>();

        FileInputStream fileIn = new FileInputStream(file);
        Properties prop = new Properties();
        prop.load(fileIn);

        Set<Object> keysProp = prop.keySet();
        for (Object key : keysProp) {
```

```
                        magentoMap.put(key.toString(), prop.getProperty(key.toString()));
                }
                prop.clear();
                return magentoMap;
        }

        public void setKeyAndValue(String file,String key,String value) throws IOException
        {
                FileInputStream fileIn = new FileInputStream(file);
                Properties prop = new Properties();
                prop.load(fileIn);

                prop.setProperty(key, value);

                FileOutputStream fOut=new FileOutputStream(file);
                prop.store(fOut, "Test Result");
                fOut.close();
                fileIn.close();
        }

}
```

File7:groceries.properties

```
url=https://atozgroceries.com/admin
username=demo@atozgroceries.com
password=456789
expectedMessage=Success: You have successfully deleted data!
notifyName=DemoNotification
notifyMessage=Adding Notification
expNotificationMessage=Success: You have successfully sent push notification to your app!
```

imagePath=C:\\Users\\IBM_ADMIN\\eclipse-workspace\\TestCases_DataDrivenFramework\\TestData\\globe.jpg

searchForKeyword=refund

searchDispalyMessage=Search with keyword is successful

noMatchDisplayMessage=No matching records found

File8:testing_searchAction.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE suite SYSTEM "http://testng.org/testng-1.0.dtd">
<suite name="Suite">
<groups>
             <run>
                    <exclude name="medium"></exclude>
             </run>
       </groups>
  <test thread-count="5" name="SearchReturnAction">
  <parameter name="browser" value="firefox"></parameter>
    <classes>
      <class name="com.ibm.groceries.ReturnAction"/>
    </classes>
  </test> <!-- SearchReturnAction -->
</suite> <!-- Suite -->
```

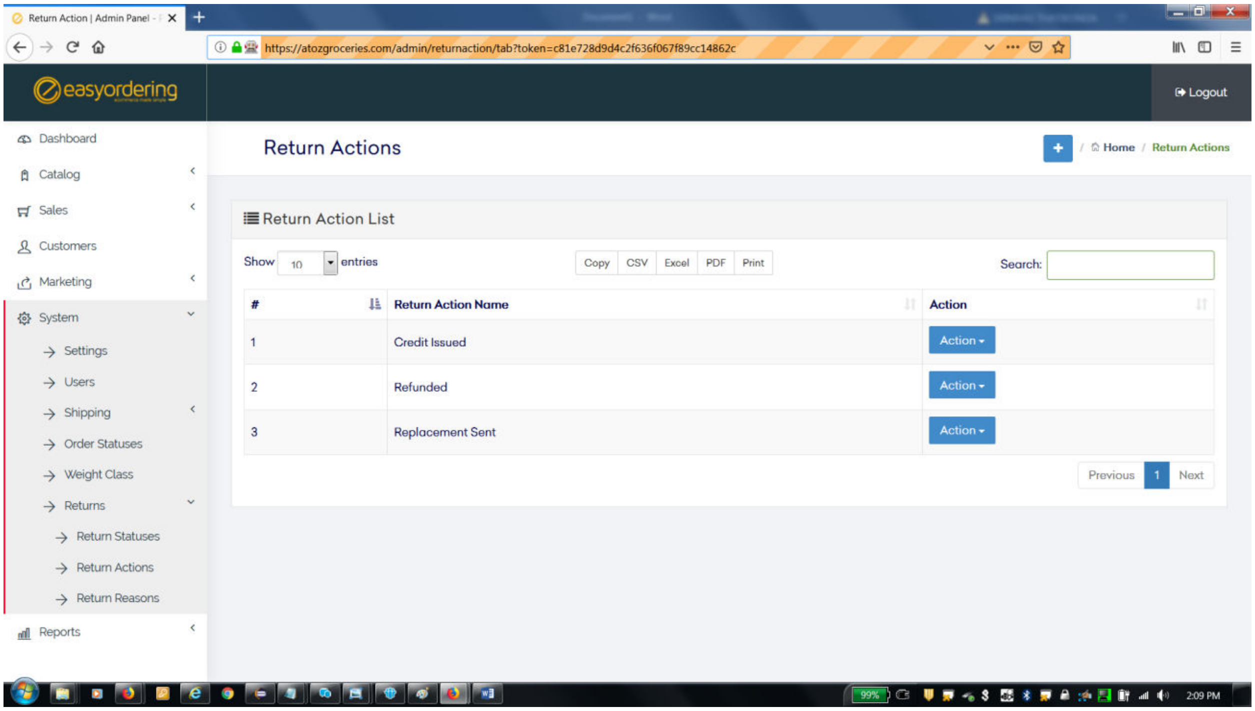
Test Result:

It is verified that the search is displayed data with “refund” keyword when matching result found.

It is also verified for expected message ‘No matching records found’ when no matching result found.

Screenshots:

Existing Return Actions:



Return Action | Admin Panel

https://atozgroceries.com/admin/returnaction/tab?token=c81e728d9d4c2f636f067f89cc14862c

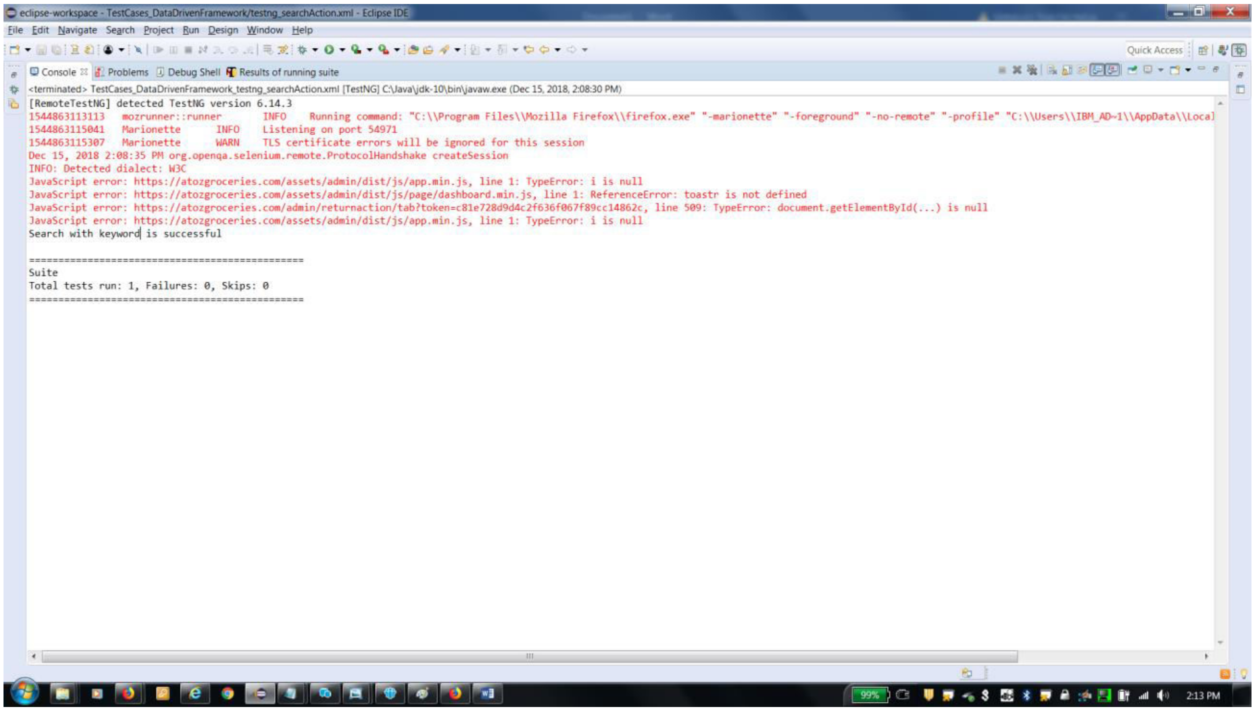
Return Actions

Return Action List

Show 10 entries

#	Return Action Name	Action
1	Credit Issued	Action ▾
2	Refunded	Action ▾
3	Replacement Sent	Action ▾

Console output:

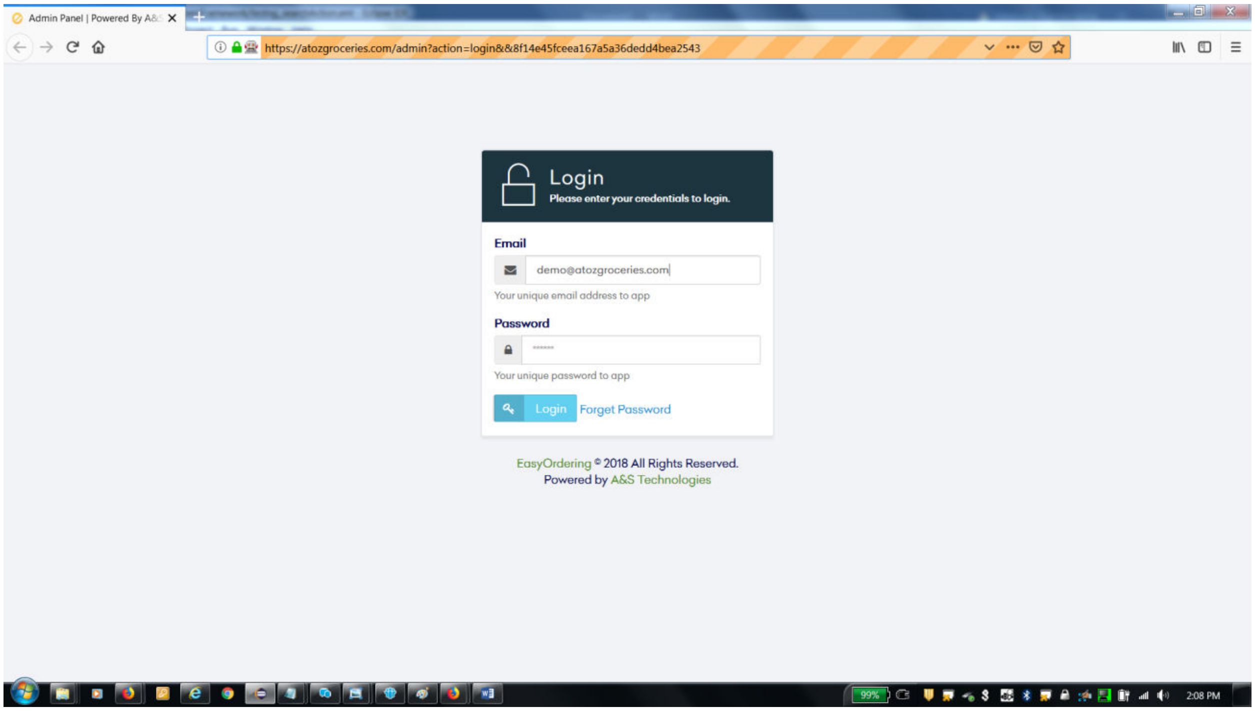


eclipse-workspace - TestCases_DataDrivenFramework/testng_searchAction.xml - Eclipse IDE

```
<terminated> TestCases_DataDrivenFramework_testng_searchAction.xml [TestNG] C:\Java\jdk-10\bin\javaw.exe (Dec 15, 2018, 2:08:30 PM)
[RemoteTestNG] detected TestNG version 6.14.3
1544863113113   mozrunner::runner       INFO    Running command: "C:\\Program Files\\Mozilla Firefox\\firefox.exe" "-marionette" "-foreground" "-no-remote" "-profile" "C:\\Users\\IBM_AD~1\\AppData\\Local
1544863115041   Marionette      INFO    Listening on port 54971
1544863115307   Marionette      WARN    TLS certificate errors will be ignored for this session
Dec 15, 2018 2:08:35 PM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: W3C
JavaScript error: https://atozgroceries.com/assets/admin/dist/js/app.min.js, line 1: TypeError: i is null
JavaScript error: https://atozgroceries.com/assets/admin/dist/js/page/dashboard.min.js, line 1: ReferenceError: toastr is not defined
JavaScript error: https://atozgroceries.com/admin/returnaction/tab?token=c81e728d9d4c2f636f067f89cc14862c, line 509: TypeError: document.getElementById(...) is null
JavaScript error: https://atozgroceries.com/assets/admin/dist/js/app.min.js, line 1: TypeError: i is null
Search with keyword is successful

===============================================
Suite
Total tests run: 1, Failures: 0, Skips: 0
===============================================
```

Login page Is displayed with entered username and password



Admin Panel | Powered By A&S

https://atozgroceries.com/admin?action=login&&8f14e45fceea167a5a36dedd4bea2543

Login

Please enter your credentials to login.

Email

demo@atozgroceries.com

Your unique email address to app

Password

******

Your unique password to app

Login Forget Password

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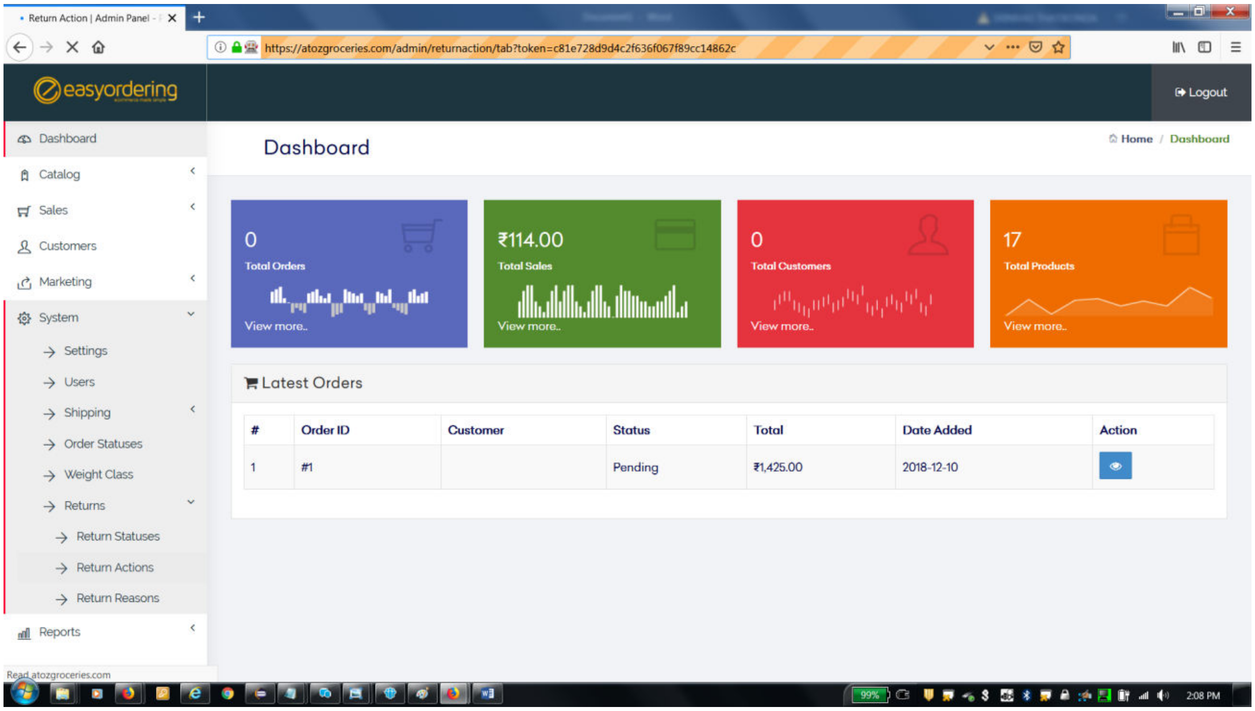
Dashboard page is displayed with System->Returns->Return Actions



Return Action | Admin Panel

https://atozgroceries.com/admin/returnaction/tab?token=c81e728d9d4c2f636f067f89cc14862c

Dashboard

0 Total Orders

₹114.00 Total Sales

0 Total Customers

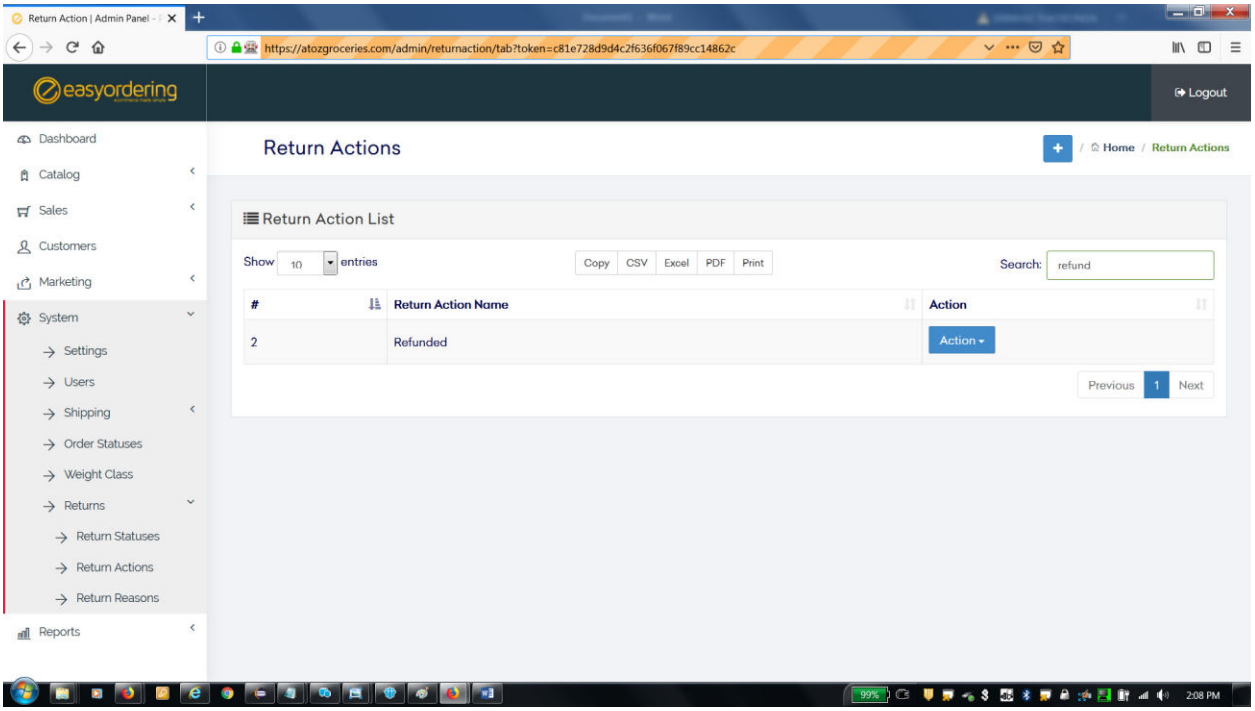
17 Total Products

Latest Orders

#	Order ID	Customer	Status	Total	Date Added	Action
1	#1		Pending	₹1,425.00	2018-12-10	👁

Read atozgroceries.com

Return Actions page is displayed with search keyword and matching record is found



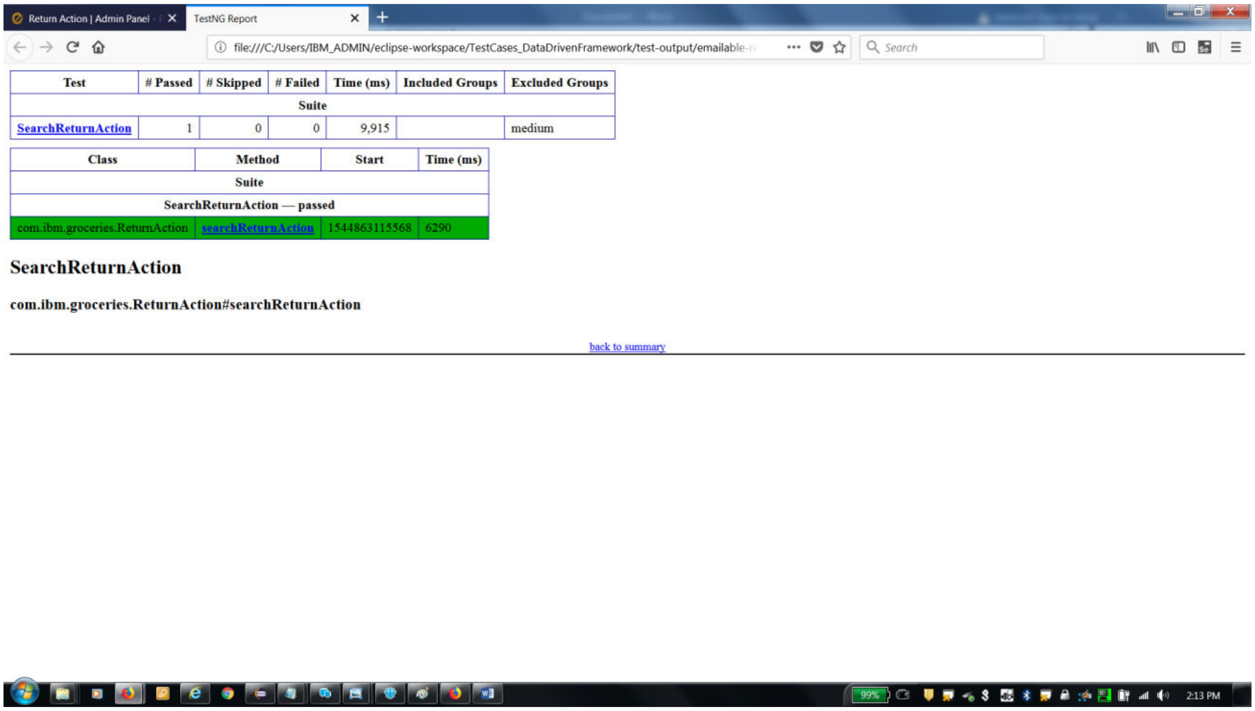
Return Actions

Return Action List

Show 10 entries

Search: refund

#	Return Action Name	Action
2	Refunded	Action ▾


Return Action | Admin Panel
TestNG Report
file:///C:/Users/IBM_ADMIN/eclipse-workspace/TestCases_DataDrivenFramework/test-output/emailable-r
Search
back to summary
2:13 PM

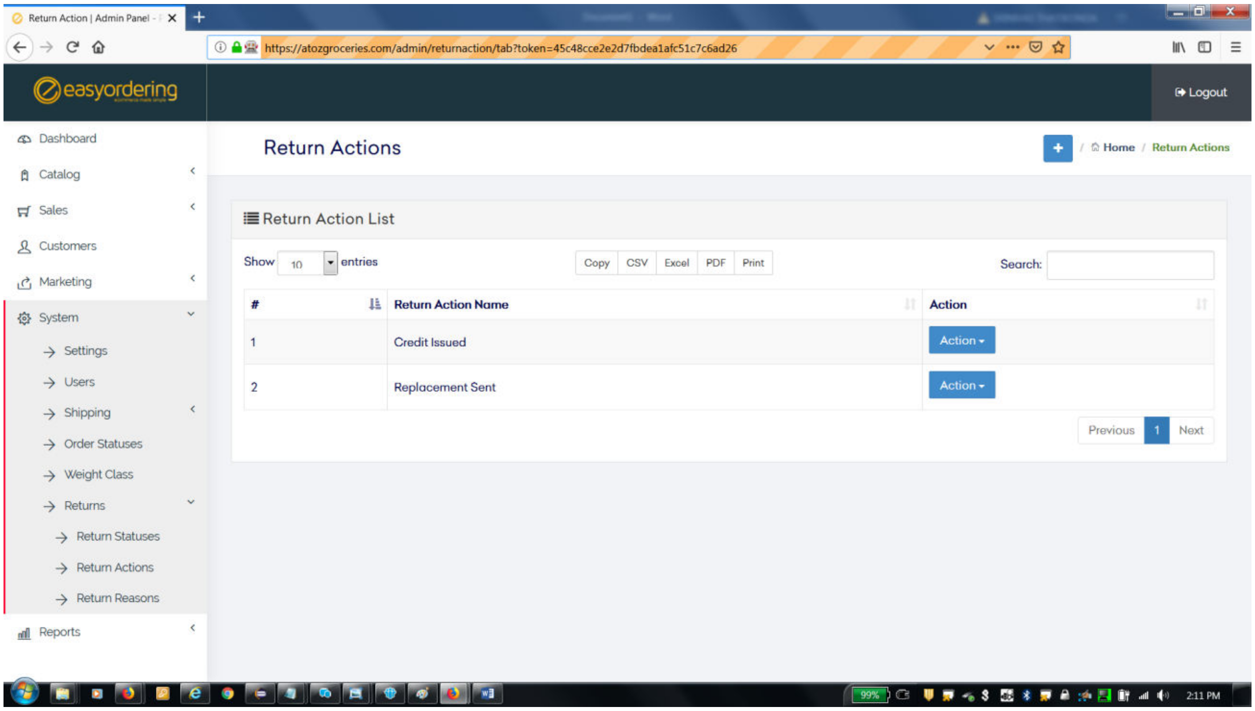
Test	# Passed	# Skipped	# Failed	Time (ms)	Included Groups	Excluded Groups
Suite						
SearchReturnAction	1	0	0	9,915		medium

Class	Method	Start	Time (ms)
Suite			
SearchReturnAction — passed			
com.ibm.groceries.ReturnAction	searchReturnAction	1544863115568	6290

SearchReturnAction

com.ibm.groceries.ReturnAction#searchReturnAction

Existing Return Actions:

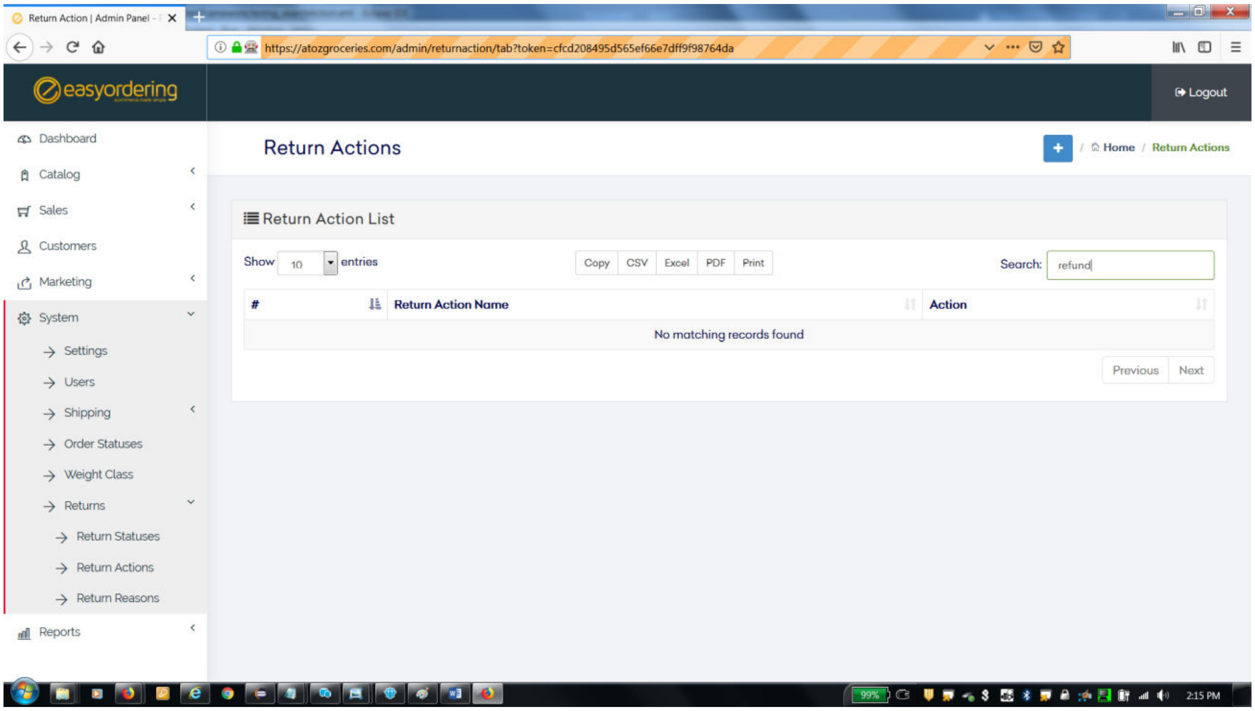


Return Actions

Return Action List

#	Return Action Name	Action
1	Credit Issued	Action ▾
2	Replacement Sent	Action ▾

The expected message found when no matching records found for keyword.

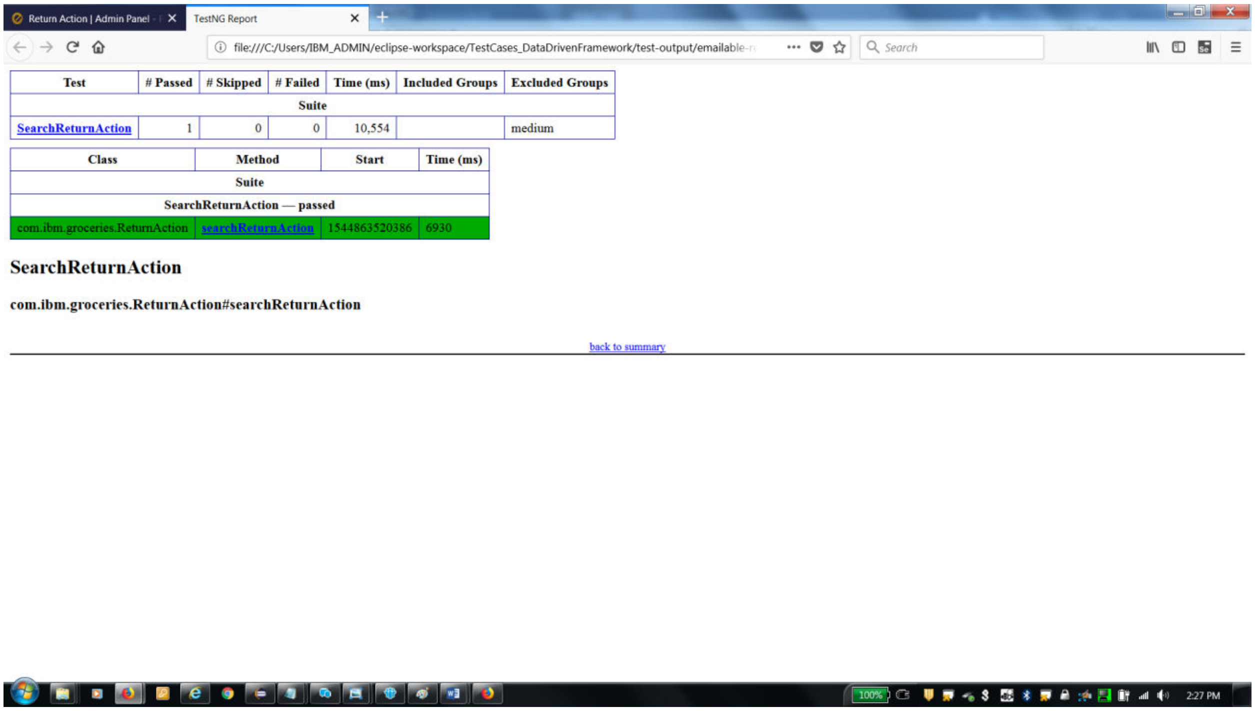


Return Actions

Return Action List

Search: refund

#	Return Action Name	Action
	No matching records found	



Return Action | Admin Panel
TestNG Report
file:///C:/Users/IBM_ADMIN/eclipse-workspace/TestCases_DataDrivenFramework/test-output/emailable-r
Search
2:27 PM

Test	# Passed	# Skipped	# Failed	Time (ms)	Included Groups	Excluded Groups
Suite						
SearchReturnAction	1	0	0	10,554		medium

Class	Method	Start	Time (ms)
Suite			
SearchReturnAction — passed			
com.ibm.groceries.ReturnAction	searchReturnAction	1544863520386	6930

SearchReturnAction

com.ibm.groceries.ReturnAction#searchReturnAction

back to summary

Flow Information:

Initially a property file ‘groceries.properties’ is created in Test Data folder of the project and list of key, values for url, username,password ,key word to search,expected validation message, etc. are stored in this property file.

Under the class ‘WebDriverLaunch’ ,a Test NG annotation ‘Before Suite’ is used to invoke the method ‘preSetFortTest’ which is used to instantiate object for class PropertiesFileHandler to return the list of these key,values in to a HashMap.

The Test NG annotation ‘Before Method’ is used by passing the parameter for browser to select and to invoke the method ‘Initialization’ which is used to call another method and to create webdriver object for the firefoxdriver or chromedriver or internetexplorer by using switch statement and setting path for webdriver exe.

The PageLogin class is defined with methods to locate the web elements email,password and login buttons. PageFactory is used in the constructor of this class. The method sendKeys is used to enter the email address and password. The method click is used to click on login button

The class ‘PageDashboard’ is defined with methods to locate the web elements System,Return and Return actions. PageFactory is used in the constructor of this class.The method click is used to click on System,Returns and Return actions links.

The class ‘ReturnActoinsPage’ is defined with method searchAction to enter the keyword for searching in search text box and the method returns pagesource. The search text box is located using ‘FindBy’ notation . PageFactory method is used in the in the constructor of this class.

The annotation @Test is used with method searchReturnAction in the class ‘ReturnAction’. This method is used to get the values for username,password ,keyword to search,valiation message etc. The get method is called to launch the web url for admin portal. The objects for classes PageLogin,PageDashboard,ReturnActionsPage are created and the above necessary methods are called on these objects. Finally the Assert is used to verify presence of the keyword searched and expected message when no match found.The testng_searchAction xml file is having the parameter ‘firefox’ to launch Firefox browser.