# Day –23

Create Automated testcases in TestNG framework using Page object model concept, and add excel file for data driven testing (At least 10 testcases)

Javacode:

package Testng;

import org.openqa.selenium.\*;

import org.openqa.selenium.chrome.ChromeDriver;

import org.openqa.selenium.interactions.Actions;

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

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

import org.testng.annotations.AfterMethod;

import org.testng.annotations.BeforeClass;

import org.testng.annotations.BeforeMethod;

import org.testng.annotations.DataProvider;

import org.testng.annotations.Test;

import java.time.Duration;

import java.util.ArrayList;

import java.util.List;

import java.util.Map;

public class Ebay{

private WebDriver driver;

private WebDriverWait wait;

private Actions actions;

private static final String EBAY\_URL = "https://www.ebay.com/";

private static final String EXCEL\_FILE\_PATH = "C:\\Users\\saiba\\git\\saibavesh\_Allprojects\\saibavesh\_Allprojects\\TestNG\_selenium\\src\\test\\resources\\Exceldata.xlsx";

private static final String SHEET\_NAME = "Sheet1";

private Map<String, String> testData;

@BeforeClass

public void setUp() {

driver = new ChromeDriver();

driver.manage().window().maximize();

driver.manage().timeouts().implicitlyWait(Duration.ofSeconds(10));

wait = new WebDriverWait(driver, Duration.ofSeconds(15));

actions = new Actions(driver);

driver.get(EBAY\_URL);

// Read test data from Excel

testData = Exceldata.readExceldata(EXCEL\_FILE\_PATH, SHEET\_NAME, 1);

}

@DataProvider(name = "searchItems")

public Object[][] getSearchItems() {

// Read multiple search items from Excel

return new Object[][] {

{testData.get("SearchItem1")},

{testData.get("SearchItem2")},

{testData.get("SearchItem3")},

{testData.get("SearchItem4")},

{testData.get("SearchItem5")}

};

}

// Login

@Test(priority = 1)

public void testLogin() {

try {

String username = testData.get("Username");

String password = testData.get("Password");

WebElement signInLink = driver.findElement(By.linkText("Sign in"));

signInLink.click();

WebElement usernameField = driver.findElement(By.id("userid"));

usernameField.sendKeys(username);

WebElement continueButton = driver.findElement(By.id("signin-continue-btn"));

continueButton.click();

Thread.sleep(2000);

WebElement passwordField = driver.findElement(By.id("pass"));

passwordField.sendKeys(password);

WebElement signInButton = driver.findElement(By.id("sgnBt"));

signInButton.click();

} catch (Exception e) {

System.out.println("Test failed: " + e.getMessage());

}

}

@Test(priority = 2, dataProvider = "searchItems")

public void testMultipleSearches(String searchItem) {

try {

WebElement searchBox = driver.findElement(By.id("gh-ac"));

searchBox.clear();

searchBox.sendKeys(searchItem);

WebElement searchButton = driver.findElement(By.id("gh-search-btn"));

searchButton.click();

// goes back to home page

driver.get(EBAY\_URL);

} catch (Exception e) {

System.out.println("Test failed: " + e.getMessage());

}

}

// Add to cart

@Test(priority = 3, dependsOnMethods = "testLogin")

public void addToCart() throws InterruptedException {

String productUrl = testData.get("ProductURL");

driver.get(productUrl);

Thread.sleep(2000);

WebElement addToCartBtn = driver.findElement(By.cssSelector("a[id\*='atcBtn']"));

addToCartBtn.click();

Thread.sleep(2000);

// Go to cart

driver.get(EBAY\_URL);

Thread.sleep(2000);

}

@Test(priority = 4)

public void deleteFromCart() throws InterruptedException {

driver.get("https://cart.ebay.com/");

// Remove item from cart

WebElement removeBtn = driver.findElement(By.cssSelector("button[data-test-id\*='cart-remove']"));

removeBtn.click();

Thread.sleep(2000);

driver.get(EBAY\_URL);

Thread.sleep(3000);

}

@Test(priority = 5)

public void testShopByCategories() throws InterruptedException {

String categoryName = testData.get("Category");

Thread.sleep(2000);

WebElement categoryMenu = driver.findElement(By.cssSelector("#gh > section > div > div"));

Actions actions = new Actions(driver);

actions.moveToElement(categoryMenu).perform();

Thread.sleep(1000);

WebElement electronicsCategory = driver.findElement(By.xpath("//a[text()='" + categoryName + "']"));

electronicsCategory.click();

Thread.sleep(3000);

driver.get(EBAY\_URL);

Thread.sleep(3000);

}

@Test(priority = 6)

public void getProductDescription() throws InterruptedException {

String searchProduct = testData.get("ProductDescriptionSearch");

driver.get(EBAY\_URL);

Thread.sleep(1000);

WebElement searchBox = driver.findElement(By.id("gh-ac"));

searchBox.clear();

searchBox.sendKeys(searchProduct);

driver.findElement(By.id("gh-search-btn")).click();

Thread.sleep(2000);

JavascriptExecutor js = (JavascriptExecutor)driver;

js.executeScript("window.scrollBy(0,500)");

Thread.sleep(1000);

WebElement productImage = wait.until(ExpectedConditions.elementToBeClickable(

By.cssSelector("#item3b4a9b2e40 > div > div.su-card-container\_\_media")

));

productImage.click();

Thread.sleep(2000);

// onclick go to new window

ArrayList<String> tabs = new ArrayList<>(driver.getWindowHandles());

if(tabs.size() > 1) {

driver.switchTo().window(tabs.get(1));

}

// Wait for description to load

WebElement description = wait.until(ExpectedConditions.visibilityOfElementLocated(

By.xpath("//div[@id='vi-desc-maincntr'] | //div[contains(@class,'item-desc')]")

));

String productDesc = description.getText();

System.out.println("= product description =\n" + productDesc);

// Close new window

if(tabs.size() > 1) {

driver.close();

driver.switchTo().window(tabs.get(0));

}

Thread.sleep(2000);

}

@Test(priority = 7)

public void language() throws InterruptedException {

String language = testData.get("Language");

driver.manage().window().maximize();

driver.get(EBAY\_URL);

WebElement profile = driver.findElement(

By.cssSelector("button[aria-label\*='eBay Sites']"));

Actions lang = new Actions(driver);

lang.moveToElement(profile).perform();

Thread.sleep(1000);

//select language

driver.findElement(By.linkText(language)).click();

Thread.sleep(4000);

}

@Test(priority = 8)

public void shopByCategoryAll() throws InterruptedException {

// Open category menu

driver.findElement(By.cssSelector("#gh > section > div > div")).click();

Thread.sleep(2000);

List<WebElement> categories = driver.findElements(By.className("gh-categories\_\_cat"));

for (int i = 0; i < Math.min(9, categories.size()); i++) {

String categoryName = categories.get(i).getText();

System.out.println("Navigating to: " + categoryName);

categories.get(i).click();

Thread.sleep(3000);

// Return to homepage and reopen menu

driver.get(EBAY\_URL);

Thread.sleep(2000);

driver.findElement(By.cssSelector("#gh > section > div > div")).click();

Thread.sleep(2000);

// Refresh categories list

categories = driver.findElements(By.className("gh-categories\_\_cat"));

}

}

// Change current username

@Test(priority = 9)

public void changeloginname() throws InterruptedException {

String newUsername = testData.get("NewUsername");

String username = testData.get("Username");

String password = testData.get("Password");

WebElement elementToHover = driver.findElement(By.cssSelector("#gh > nav > div.gh-nav\_\_left-wrap > span.gh-identity"));

Actions actions = new Actions(driver);

actions.moveToElement(elementToHover).build().perform();

Thread.sleep(3000);

driver.get("https://accountsettings.ebay.com/uas");

Thread.sleep(3000);

driver.findElement(By.xpath("//\*[@id=\"account-settings-link-PI\"]")).click();

Thread.sleep(3000);

driver.findElement(By.id("individual\_username\_edit\_button")).click();

Thread.sleep(3000);

WebElement inp = driver.findElement(By.id("user\_name"));

inp.clear();

inp.sendKeys(newUsername);

driver.findElement(By.id("username\_submit\_edit\_btn")).click();

Thread.sleep(5000);

WebElement name = driver.findElement(By.id("userid"));

name.sendKeys(username);

driver.findElement(By.id("signin-continue-btn")).click();

Thread.sleep(3000);

WebElement pass = driver.findElement(By.id("pass"));

pass.sendKeys(password);

driver.findElement(By.id("sgnBt")).click();

Thread.sleep(4000);

}

// Change current address

@Test(priority = 10)

public void changeaddress() throws InterruptedException {

String newAddress = testData.get("NewAddress");

String city = testData.get("City");

String state = testData.get("State");

String postalCode = testData.get("PostalCode");

WebElement elementToHover = driver.findElement(By.cssSelector("#gh > nav > div.gh-nav\_\_left-wrap > span.gh-identity"));

Actions actions = new Actions(driver);

actions.moveToElement(elementToHover).build().perform();

Thread.sleep(3000);

driver.get("https://accountsettings.ebay.com/uas");

Thread.sleep(3000);

driver.findElement(By.id("account-settings-link-PI")).click();

Thread.sleep(3000);

JavascriptExecutor js = (JavascriptExecutor)driver;

js.executeScript("window.scrollBy(0,400)");

driver.findElement(By.id("individual\_personal\_info\_address\_edit\_button")).click();

Thread.sleep(3000);

js.executeScript("window.scrollBy(0,400)");

WebElement inp = driver.findElement(By.id("addressLine1"));

inp.clear();

inp.sendKeys(newAddress);

WebElement ct = driver.findElement(By.id("city"));

ct.clear();

ct.sendKeys(city);

driver.findElement(By.cssSelector("select>option[value=\"" + state + "\"]")).click();

WebElement pc = driver.findElement(By.id("postalCode"));

pc.clear();

pc.sendKeys(postalCode);

driver.findElement(By.id("address\_edit\_submit\_button")).click();

Thread.sleep(5000);

}

}

Excel data:

package Testng;

import org.apache.poi.ss.usermodel.\*;

import org.apache.poi.xssf.usermodel.XSSFWorkbook;

import java.io.File;

import java.io.FileInputStream;

import java.io.IOException;

import java.util.HashMap;

import java.util.Map;

public class Exceldata {

public static Map<String, String> readExceldata(String filePath, String sheetName, int rowNum) {

Map<String, String> dataMap = new HashMap<>();

try (FileInputStream file = new FileInputStream(new File(filePath));

Workbook workbook = new XSSFWorkbook(file)) {

Sheet sheet = workbook.getSheet(sheetName);

if (sheet == null) {

System.out.println("Sheet '" + sheetName + "' not found!");

return dataMap;

}

// Read all rows and create a map of Field -> Value

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

Row row = sheet.getRow(i);

if (row != null && row.getCell(0) != null && row.getCell(1) != null) {

String key = getCellValueAsString(row.getCell(0));

String value = getCellValueAsString(row.getCell(1));

dataMap.put(key, value);

System.out.println("Read from Excel - Key: " + key + ", Value: " + value);

}

}

} catch (IOException e) {

System.out.println("Error reading Excel file: " + e.getMessage());

e.printStackTrace();

}

return dataMap;

}

private static String getCellValueAsString(Cell cell) {

DataFormatter formatter = new DataFormatter();

return formatter.formatCellValue(cell).trim();

}

}