**package** com.realpay;

**import** java.time.Duration;

**import** java.util.List;

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

**import** org.openqa.selenium.JavascriptExecutor;

**import** org.openqa.selenium.WebElement;

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

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

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

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

**import** org.testng.annotations.Test;

**public** **class** AmazonLazyLoadingTest {

ChromeDriver driver = **new** ChromeDriver();

String url = "https://amazon.in";

@Test

**public** **void** openWebpage() {

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

driver.manage().deleteAllCookies();

driver.manage().timeouts().pageLoadTimeout(Duration.*ofSeconds*(30));

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

}

@Test

**public** **void** testLazyLoading() {

driver.get(url);

// getting the webElements

WebElement category = driver.findElement(By.*xpath*("//select[@id='searchDropdownBox']"));

WebElement searchBox = driver.findElement(By.*xpath*("//input[@id='twotabsearchtextbox']"));

WebElement searchBtn = driver.findElement(By.*xpath*("//input[@id='nav-search-submit-button']"));

Select selCategory = **new** Select(category);

**try** {

Thread.*sleep*(1000);

} **catch** (Exception e) {

e.printStackTrace();

}

selCategory.selectByVisibleText("Electronics");

searchBox.sendKeys("iPhone 13");

searchBtn.click();

}

@Test

**public** **void** getNthProdDetails(**int** nthProd) {

WebDriverWait wait = **new** WebDriverWait(driver, Duration.*ofSeconds*(4));

WebElement results = driver.findElement(By.*xpath*("//span[text()='Results']"));

**try** {

wait.until(ExpectedConditions.*visibilityOf*(results));

} **catch** (Exception e) {

e.printStackTrace();

}

// WebElement nthItem = driver.findElement(By.xpath(" //div[@data-component-type='s-search-result'][" + nthProd

// + "]" + "//img[contains(@class, 's-image')]"));

WebElement nthItem = driver

.findElement(By.*xpath*(" //div[@data-component-type='s-search-result'][" + nthProd + "]"));

nthItem.click();

WebElement nthItemTitle = driver.findElement(By.*xpath*("//div[@data-component-type='s-search-result'][" + nthProd

+ "]" + "//span[contains(@class, 'a-size')]"));

WebElement nthItemPrice = driver.findElement(By.*xpath*("//div[@data-component-type='s-search-result'][" + nthProd

+ "]" + "//span[contains(@class, 'a-price-whole')]"));

System.***out***.println("Nth Product Located With The Following Details:");

System.***out***.println("=================================================");

System.***out***.println("Nth Product Title: " + nthItemTitle.getText());

System.***out***.println("Nth Product Price: " + nthItemPrice.getText());

}

@Test

**public** **void** getAllDisplayedProducts() {

List<WebElement> products = driver.findElements(By.*xpath*("//div[@data-component-type='s-search-result']"));

// int i = 1;

System.***out***.println("List of all Displayed Products:");

**for** (**int** i = 1; i <= products.size(); i++) {

**try** {

WebElement nthItemTitle = driver.findElement(By.*xpath*("//div[@data-component-type='s-search-result']["

+ i++ + "]" + "//span[contains(@class, 'a-size')]"));

System.***out***.println("=================================================");

System.***out***.println(i++ + ". Product Title: " + nthItemTitle.getText());

} **catch** (Exception e) {

e.printStackTrace();

}

}

}

@Test

**public** **void** scrollDownProducts() {

driver.navigate().back();

// getting the webElements

WebElement category = driver.findElement(By.*xpath*("//select[@id='searchDropdownBox']"));

WebElement searchBox = driver.findElement(By.*xpath*("//input[@id='twotabsearchtextbox']"));

WebElement searchBtn = driver.findElement(By.*xpath*("//input[@id='nav-search-submit-button']"));

Select selCategory = **new** Select(category);

**try** {

Thread.*sleep*(1000);

} **catch** (Exception e) {

e.printStackTrace();

}

selCategory.selectByVisibleText("Electronics");

searchBox.sendKeys("iPhone 13");

searchBtn.click();

List<WebElement> products = driver.findElements(By.*xpath*("//div[@data-component-type='s-search-result']"));

**int** lastElement = (products.size() - 1);

WebElement lastProd = driver

.findElement(By.*xpath*("//div[@data-component-type='s-search-result'][" + lastElement + "]"));

JavascriptExecutor js = driver;

// js.executeScript("window.scrollBy(0, 350)", "");

js.executeScript("arguments[0].scrollIntoView();", lastProd);

}

**public** **void** closeWebpage() {

// driver.close();

}

}