Software Testing – CA1

Question 1:

Code:

```java
package com.rithik.ca1;

import org.junit.Assert;
import org.openqa.selenium.By;
import org.openqa.selenium.Keys;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.chrome.ChromeOptions;

import io.github.bonigarcia.wdm.WebDriverManager;

public class Question1 {
    public static void main(String[] args) throws InterruptedException {
        // Setting up driver
        WebDriverManager.chromedriver().setup();
        ChromeOptions co = new ChromeOptions();
        co.addArguments("--remote-allow-origins=*");
        WebDriver driver = new ChromeDriver(co);

        String url =
"https://www.amazon.com/ap/signin?openid.pape.max_auth_age=0&openid.return
_to=https%3A%2F%2Fwww.amazon.com%2F%3F_encoding%3DUTF8%26ref_%3Dnav_ya_sig
nin&openid.identity=http%3A%2F%2Fspecs.openid.net%2Fauth%2F2.0%2Fidentifie
r_select&openid.assoc_handle=usflex&openid.mode=checkid_setup&openid.claim
ed_id=http%3A%2F%2Fspecs.openid.net%2Fauth%2F2.0%2Fidentifier_select&openi
d.ns=http%3A%2F%2Fspecs.openid.net%2Fauth%2F2.0&";
        driver.get(url);

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

        WebElement em = driver.findElement(By.id("ap_email"));
        em.sendKeys("rithukuza@gmail.com", Keys.ENTER);
```

```java
        WebElement pw = driver.findElement(By.id("ap_password"));
        pw.sendKeys("rithukuza", Keys.ENTER);

        // Search a product
        WebElement srch =
driver.findElement(By.id("twotabsearchtextbox"));
        srch.sendKeys("cloth", Keys.ENTER);

        // Click laptop
        WebElement cloth = driver.findElement(By.xpath(
                "//*[@id=\"search\"]/div[1]/div[1]/div/span[1]/div[1]/div[
2]/div/div/div/div/div/div/div[3]/div[2]/h2/a"));
        cloth.click();

        // Add to cart
        WebElement addToCart = driver.findElement(By.id("add-to-cart-
button"));
        addToCart.click();

        // Wait
        Thread.sleep(3000);

        // Verify added
        WebElement added = driver.findElement(By.id("nav-cart-count"));
        Assert.assertNotEquals(added.getText(), "0");
        System.out.println("* User can add a product by clicking on Add to
Cart button");

        WebElement open = driver.findElement(By.xpath("//*[@id=\"sw-
gtc\"]/span/a"));
        open.click();

        // Take price
        String acPrice = driver
                .findElement(By.xpath(
                        "//*[@id=\"sc-subtotal-amount-
activecart\"]/span"))
                .getText();

        // Delete verify
        WebElement deleteButton =
        driver.findElement(By.xpath("//*[@id=\"sc-active-C786292ce-7473-
4968-8fd0-a45b402154e6\"]/div[4]/div/div[3]/div[1]/span[2]/span/input"));
```

```java
        Assert.assertTrue(deleteButton.isEnabled());
        System.out.println("* User can remove a product by clicking on
Remove button");



        // Update verify
        WebElement update = driver.findElement(By.id("a-autoid-0-
announce"));
        Assert.assertTrue(update.isEnabled());
        System.out.println("* User can update a product by clicking on
Update button");


        // Checkout
        WebElement checkout = driver.findElement(By.xpath("//*[@id=\"sc-
buy-box-ptc-button\"]/span/input"));
        checkout.click();

        Assert.assertEquals(driver.getCurrentUrl(),
"https://www.amazon.com/gp/buy/payselect/handlers/display.html?_from=cheet
ah");
        System.out.println("* User can  can proceed to the checkout page
by clicking on the Checkout button");

        System.out.println("* Checkout process is working as expected and
calculates the total cost accurately");

        driver.quit();
    }
}
```
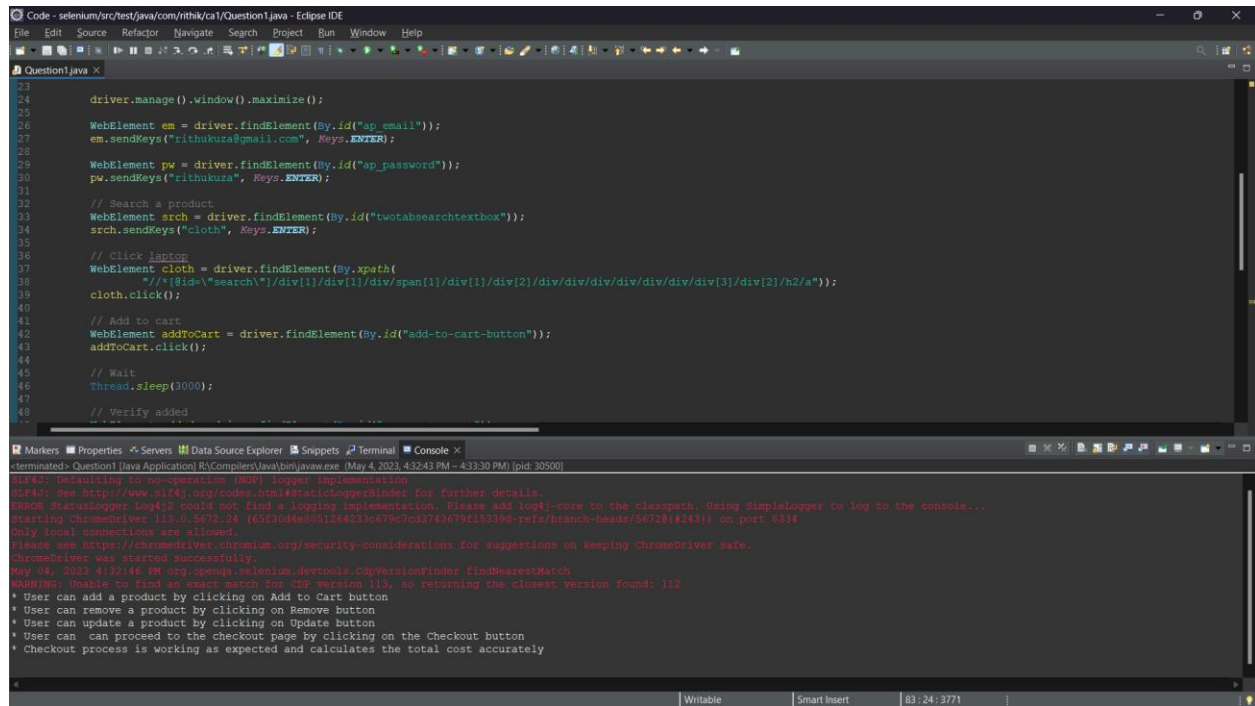
Screenshot:


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

        WebElement em = driver.findElement(By.id("ap_email"));
        em.sendKeys("rithukuza@gmail.com", Keys.ENTER);

        WebElement pw = driver.findElement(By.id("ap_password"));
        pw.sendKeys("rithukuza", Keys.ENTER);

        // Search a product
        WebElement srch = driver.findElement(By.id("twotabsearchtextbox"));
        srch.sendKeys("cloth", Keys.ENTER);

        // Click laptop
        WebElement cloth = driver.findElement(By.xpath(
            "//*[@id=\"search\"]/div[1]/div[1]/div/span[1]/div[1]/div[2]/div/div/div/div/div/div[3]/div[2]/h2/a"));
        cloth.click();

        // Add to cart
        WebElement addToCart = driver.findElement(By.id("add-to-cart-button"));
        addToCart.click();

        // Wait
        Thread.sleep(3000);

        // Verify added
```

Console output:

```
<terminated> Question1 [Java Application] R:\Compilers\Java\bin\javaw.exe (May 4, 2023, 4:32:43 PM – 4:33:30 PM) [pid: 30500]
SLF4J: Defaulting to no-operation (NOP) logger implementation
SLF4J: See http://www.slf4j.org/codes.html#StaticLoggerBinder for further details.
ERROR StatusLogger Log4j2 could not find a logging implementation. Please add log4j-core to the classpath. Using SimpleLogger to log to the console...
Starting ChromeDriver 113.0.5672.24 (65f30d4e8051264233c679c7cd3743679f15339d-refs/branch-heads/5672@{#241}) on port 8334
Only local connections are allowed.
Please see https://chromedriver.chromium.org/security-considerations for suggestions on keeping ChromeDriver safe.
ChromeDriver was started successfully.
May 04, 2023 4:32:46 PM org.openqa.selenium.devtools.CdpVersionFinder findNearestMatch
WARNING: Unable to find an exact match for CDP version 113, so returning the closest version found: 112
* User can add a product by clicking on Add to Cart button
* User can remove a product by clicking on Remove button
* User can update a product by clicking on Update button
* User can  can proceed to the checkout page by clicking on the Checkout button
* Checkout process is working as expected and calculates the total cost accurately
```

Question 2:

Code:

```java
package com.rithik.ca1;

import java.util.List;

import org.junit.Assert;
import org.openqa.selenium.By;
import org.openqa.selenium.JavascriptExecutor;
import org.openqa.selenium.Keys;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.chrome.ChromeOptions;

import io.github.bonigarcia.wdm.WebDriverManager;

public class Question2 {
    public static void main(String[] args) throws InterruptedException {
        // Setting up driver
        WebDriverManager.chromedriver().setup();
        ChromeOptions co = new ChromeOptions();
        co.addArguments("--remote-allow-origins=*");
        WebDriver driver = new ChromeDriver(co);

        String url = "https://www.amazon.com/";
        driver.get(url);

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

        // Search a product
        WebElement srch =
driver.findElement(By.id("twotabsearchtextbox"));
        srch.sendKeys("laptop", Keys.ENTER);

        // List
        List<WebElement> li = driver
                .findElements(By.xpath("//h2[@class=\"a-size-mini a-
spacing-none a-color-base s-line-clamp-2\"]"));

        // Verify if results are displayed
```

```java
            Assert.assertNotEquals(li.size(), 0);
            System.out.println("* Relevant Products are displayed");

            System.out.println("* List of 5 Products : ");
            for (int i = 0; i < 5; i++)
                System.out.println((i + 1) + ") " + li.get(i).getText());

            // Price filter
            WebElement pricefil = driver.findElement(By.id("p_36-title"));
            Assert.assertTrue(pricefil.isDisplayed());
            System.out.println("* Price filter is enabled");

            // Brand filter
            WebElement brandfil = driver.findElement(By.id("p_89-title"));
            Assert.assertTrue(brandfil.isDisplayed());
            System.out.println("* Brand filter is enabled");

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

            // Brand filter
            WebElement otherfil = driver.findElement(By.id("filters"));
            Assert.assertTrue(otherfil.isDisplayed());
            System.out.println("* Other filters also enabled");

            // Close the browser
            driver.quit();
    }
}
```
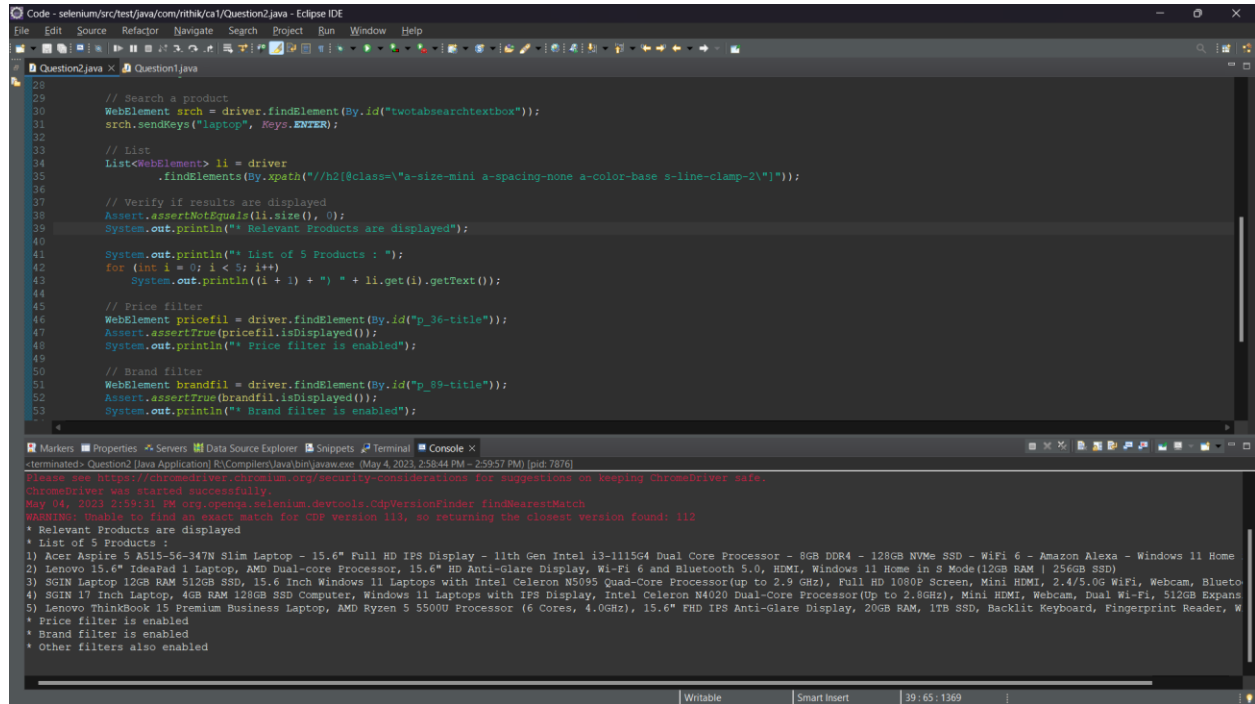
Screenshot:

Question 3:

Code:

```java
package com.rithik.ca1;

import org.junit.Assert;
import org.openqa.selenium.By;
import org.openqa.selenium.Keys;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.chrome.ChromeOptions;

import io.github.bonigarcia.wdm.WebDriverManager;

public class Question3 {
    public static void main(String[] args) throws InterruptedException {
        // Setting up driver
        WebDriverManager.chromedriver().setup();
        ChromeOptions co = new ChromeOptions();
        co.addArguments("--remote-allow-origins=*");
        WebDriver driver = new ChromeDriver(co);

        String url =
"https://www.amazon.com/ap/signin?openid.pape.max_auth_age=0&openid.return
_to=https%3A%2F%2Fwww.amazon.com%2F%3F_encoding%3DUTF8%26ref_%3Dnav_ya_sig
nin&openid.identity=http%3A%2F%2Fspecs.openid.net%2Fauth%2F2.0%2Fidentifie
r_select&openid.assoc_handle=usflex&openid.mode=checkid_setup&openid.claim
ed_id=http%3A%2F%2Fspecs.openid.net%2Fauth%2F2.0%2Fidentifier_select&openi
d.ns=http%3A%2F%2Fspecs.openid.net%2Fauth%2F2.0&";
        driver.get(url);

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


        WebElement em = driver.findElement(By.id("ap_email"));
        em.sendKeys("rithukuza@gmail.com", Keys.ENTER);

        WebElement pw = driver.findElement(By.id("ap_password"));
        pw.sendKeys("rithukuza", Keys.ENTER);

        WebElement clik = driver.findElement(By.xpath("//*[@id=\"nav-link-
accountList\"]"));
```
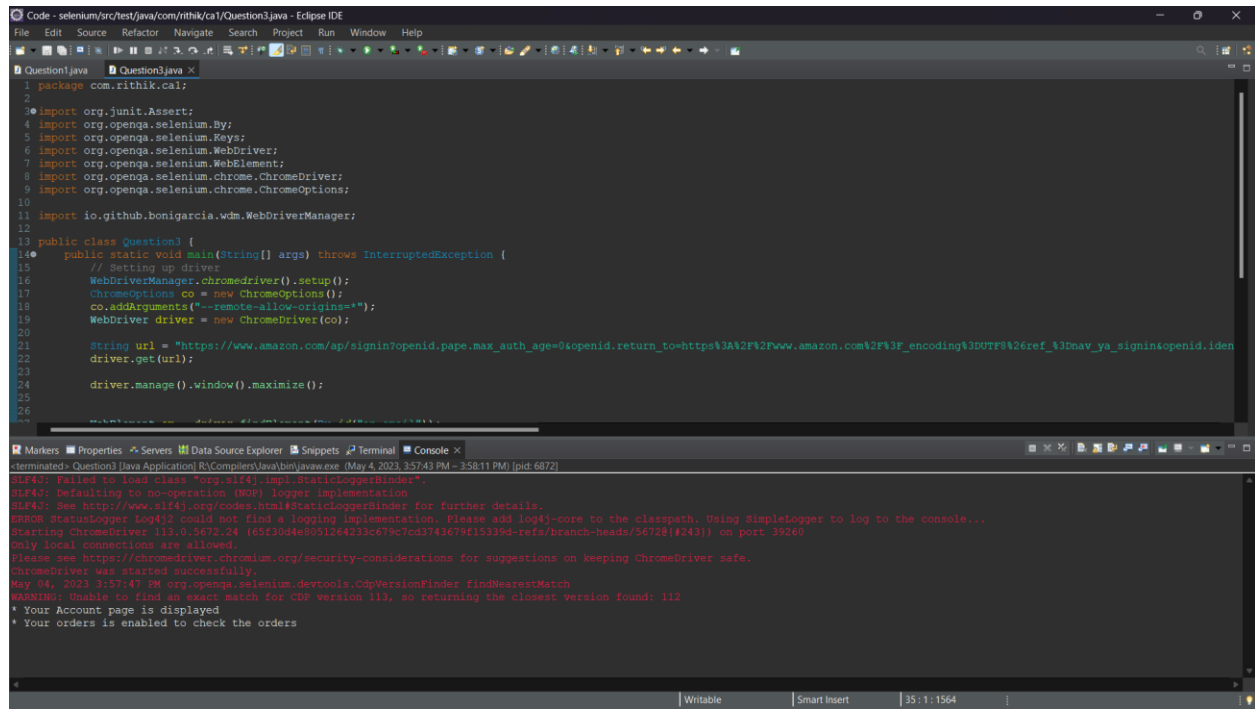
```java
        clik.click();

        Assert.assertEquals(driver.getCurrentUrl(),
"https://www.amazon.com/gp/css/homepage.html?ref_=nav_youraccount_btn");
        System.out.println("* Your Account page is displayed");

        WebElement yourOrders = driver
                .findElement(By.xpath("//*[@id=\"a-
page\"]/div[2]/div/div[2]/div[1]/a/div/div/div/div[2]/h2"));
        Assert.assertTrue(yourOrders.isDisplayed());
        System.out.println("* Your orders is enabled to check the
orders");
    }
}
```

Screenshot: