EX:-8 Title**: Write a script to test cookie creation in Selenium Java WebDriver.**
URL**: https://www.amazon.in**

AIM

To write a Selenium Java WebDriver script that tests the cookie creation mechanism for the website Amazon.in.

REQUIREMENTS

Software:

- JDK (Java Development Kit) 8 or higher
- Eclipse IDE or IntelliJ IDEA
- Selenium WebDriver
- ChromeDriver or GeckoDriver (based on the browser)

Hardware:

- A computer with minimum 4 GB RAM.
- Internet connection to access Amazon.in.

Theory :

A **cookie** is a small piece of data stored on the user's browser by a website to remember information about the user during and across visits. Cookies are used for session management (e.g., keeping users logged in), personalization (e.g., saving preferences), and tracking user behavior (e.g., for analytics and targeted advertising). They help improve user experience by storing relevant details. Cookies can be temporary (session cookies) or persistent, lasting across sessions. Websites typically notify users about cookie use for transparency and data privacy.

Selenium Java WebDriver Script

```
/ Importing required libraries
package maposion;
import org.openqa.selenium.Cookie;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;
import java.util.Set;

public class cookiesmanage {
    public static void main(String[] args) {
        // Set the path to the ChromeDriver executable
System.setProperty("webdriver.chrome.driver", "c://chromedriver.exe");

        // Initialize a new ChromeDriver instance
        WebDriver driver = new ChromeDriver();

            // Navigate to Amazon India website
            driver.get("https://www.amazon.in");
            // Maximize the browser window
            driver.manage().window().maximize();

 /*Retrieve all cookies set by Amazon
 This line retrieves all cookies stored in the current browser
session.
     driver.manage().getCookies()  returns a Set of Cookie
objects,  where each Cookie object represents a browser cookie.*/

   Set<Cookie> allCookies = driver.manage().getCookies(); /*Print
out each cookie's name and value for-each loop that iterates
through each Cookie object in the allCookies set.
             */
  for (Cookie cookie : allCookies)

   {
 System.out.println("Cookie Name: " + cookie.getName());
 System.out.println("Domain: " + cookie.getDomain());
System.out.println("Path: " + cookie.getPath());
System.out.println("Expiry: " + cookie.getExpiry());
 System.out.println("Is Secure: " + cookie.isSecure());
  System.out.println("----------*********---------");
      }

    // Add a new cookie
    Cookie newCookie = new Cookie("TestCookie", "12345");
```

```
      driver.manage().addCookie(newCookie);

    // Verify that the new cookie has been added
Cookie addedCookie = Driver.manage().getCookieNamed("TestCookie")
System.out.println("Added Cookie: " + addedCookie.getName() + " -> " +
addedCookie.getValue());

    // Delete a cookie
    driver.manage().deleteCookieNamed("TestCookie");

    // Verify that the cookie has been deleted
    Cookie deletedCookie = driver.manage().getCookieNamed("TestCookie");
    if (deletedCookie == null)
 {
 System.out.println("TestCookie has been successfully deleted.");
              }
     // Verify if a specific cookie is present
    Cookie sessionCookie = driver.manage().getCookieNamed("session-id");
 if (sessionCookie != null)
 {
     System.out.println("Session ID Cookie is present.");
System.out.println("Session ID: " + sessionCookie.getValue());
              }
 else {
    System.out.println("Session ID Cookie is not present.");
              }

    driver.quit();
          }
      }
```

PROCEDURE FOR RUNNING

1. **Set up the environment**:
   - Ensure that Java is installed
   - Ensure that Selenium WebDriver libraries are Download and added them to project's build path.
   - Ensure that latest ChromeDriver or GeckoDriver, installed depending on the browser.
   - Ensure the correct driver path is set in your script.
2. **Write the script**:
   - Open your IDE (Eclipse/IntelliJ IDEA).
   - Create a new Java class and write the Selenium script provided above.
3. **Execute the script**:
   - Right-click on the file and choose "Run As -> Java Application" to execute the script.
   - The script will open Amazon.in, retrieve cookies, add a new cookie, and then delete it.
4. **Observe the output**:
   - The console will display the list of cookies along with the newly added and deleted cookies.

COMMON ISSUES & TROUBLESHOOTING

Issue-1: *Driver not found error*
Solution: Make sure the path to `ChromeDriver` or `GeckoDriver` is correctly set in the script.

Issue-2: *Browser not opening*
Solution: Ensure the browser is updated and compatible with the WebDriver version being used.

Issue-3: *Cookies not being displayed or added*
Solution: Check if the website blocks third-party cookies or requires authentication. Try running the script on a simpler webpage to verify if cookies are being handled correctly.

Issue-4: *Timeout or Page not loaded*
Solution: Use `Thread.sleep()` or WebDriver's `manage().timeouts()` method to introduce implicit/explicit waits to ensure the page has fully loaded before interacting with elements or cookies.

OutPUT

The console will display:

- List of existing cookies on Amazon.in.
- The new cookie (`TestCookie`) being added and displayed.
- Confirmation of the deletion of the added cookie.

Console Output:

```
Cookie Name: i18n-prefs
Domain: .amazon.in
Path: /
Expiry: Fri Sep 19 17:33:13 IST 2025
Is Secure: false
----------*********---------
```

```
Cookie Name: session-id-time
Domain: .amazon.in
Path: /
Expiry: Fri Sep 19 17:33:13 IST 2025
Is Secure: true
----------*********---------
Cookie Name: session-token
Domain: .amazon.in
Path: /
Expiry: Fri Sep 19 17:33:15 IST 2025
Is Secure: true
----------*********---------
Cookie Name: ubid-acbin
Domain: .amazon.in
Path: /
Expiry: Fri Sep 19 17:33:14 IST 2025
Is Secure: true
----------*********---------
Cookie Name: csm-hit
Domain: www.amazon.in
Path: /
Expiry: Thu Sep 04 17:33:20 IST 2025
Is Secure: false
----------*********---------
Cookie Name: session-id
Domain: .amazon.in
Path: /
Expiry: Fri Sep 19 17:33:13 IST 2025
Is Secure: true
----------*********---------
Session ID Cookie is present.
Session ID: 257-2548069-8444448
```

RESULT:-

The script successfully tests the creation, addition, and deletion of cookies on Amazon.in using Selenium WebDriver in Java.