

## Debugging Journey – JMeter Performance Test

*This document captures key debugging scenarios encountered while configuring and running performance tests for an eCommerce web application using Apache JMeter.*

### 1. CSRF Token Debugging (403 Forbidden Issue)

#### **Problem Faced:**

The Login API returned a 403 Forbidden response during JMeter execution.

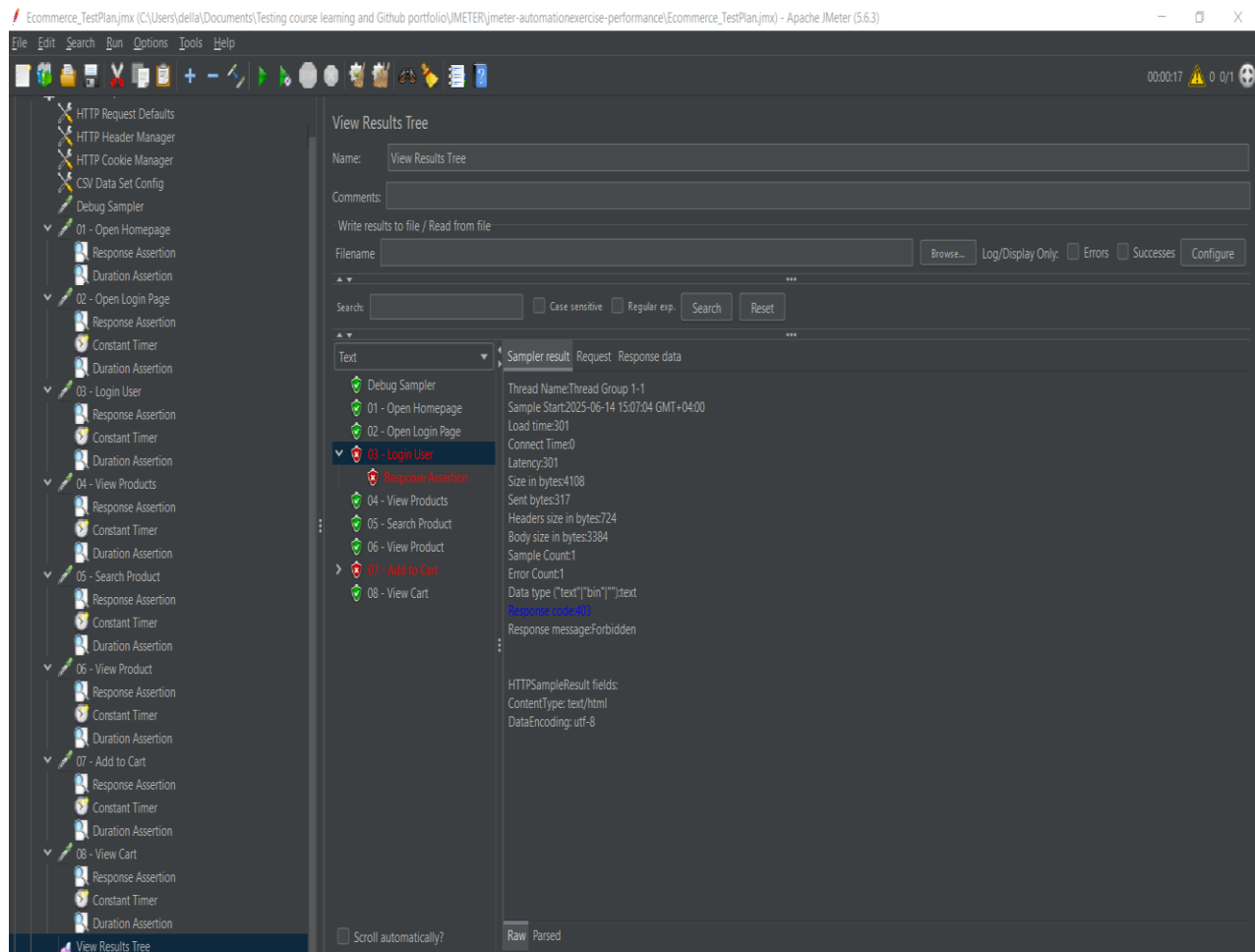
#### **Debugging Approach:**

- Opened the browser's Developer Tools and switched to the Network tab.
- Observed the login request payload to see what was actually being sent.
- Found that the request included three fields:
  - email
  - password
  - csrfmiddlewaretoken
  - **Resolution:**
    - ✓ Added a Regular Expression Extractor in JMeter to capture the csrfmiddlewaretoken token from the login page's HTML response.
    - ✓ Passed the extracted token in the login POST request using \${csrfmiddlewaretoken}.

#### **Outcome:**

Login succeeded. All subsequent steps also passed successfully.

Screenshot\_1->403 error



Screenshot\_2->debugging using developertools in browser

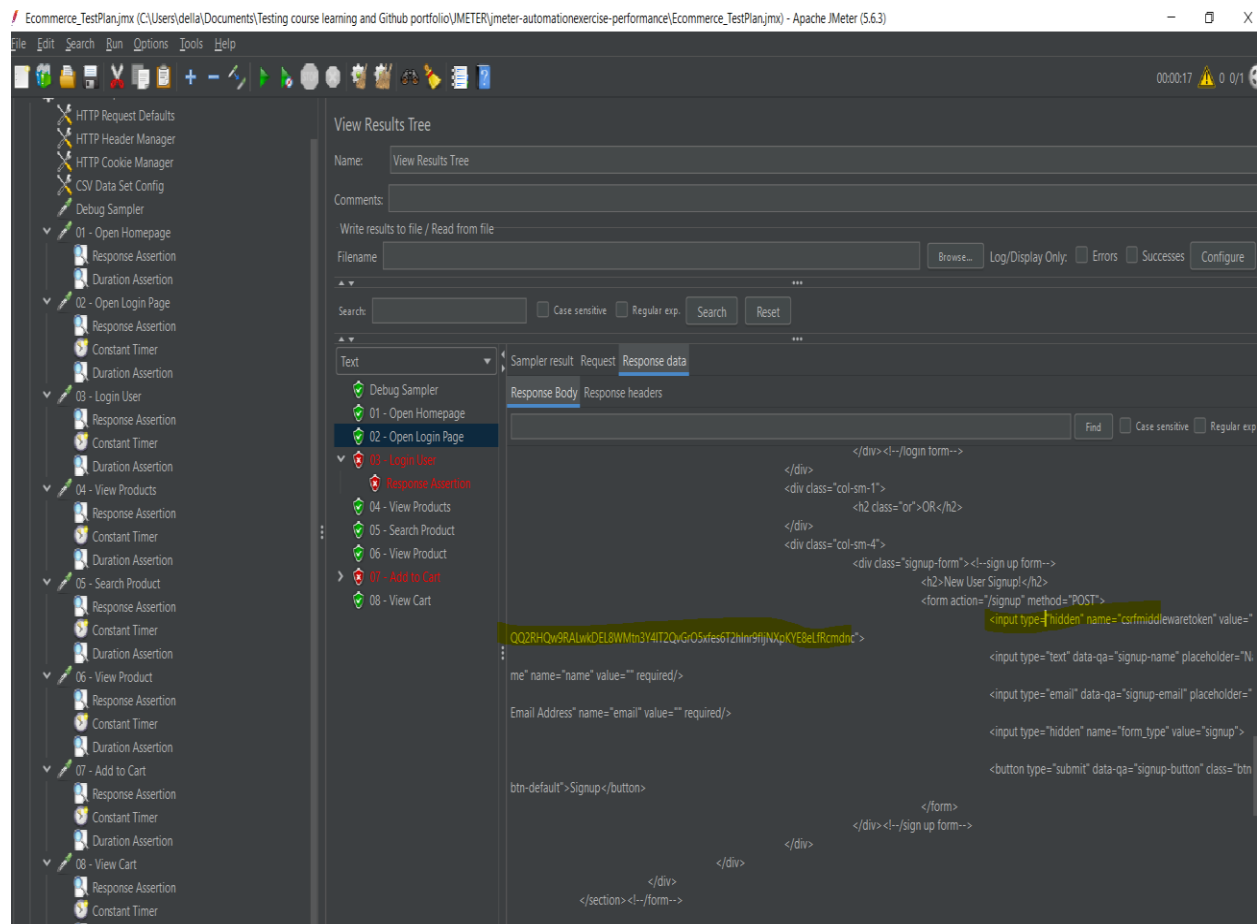
The screenshot shows a web browser window with the URL `automationexercise.com`. The page displays the website's header with navigation links (Home, Products, Cart, Logout, Delete Account, Test Cases, API Testing, Video Tutorials, Contact us) and a login status for `resmatest1@mail.com`. The main content area features the site title "AutomationExercise" and a description: "Full-Fledged practice website for Automation Engineers". Below this, it states: "All QA engineers can use this website for automation practice and API testing either they are at beginner or advance level. This is for everybody to help them brush up their automation skills." There are two buttons: "Test Cases" and "APIs list for practice".

The browser's developer tools are open, showing the Network tab. A list of requests is displayed on the left, including `login`, `automationexercise.com`, `bootstrap.min.css`, `font-awesome.min.css`, `prettyPhoto.css`, `animate.css`, `main.css`, `responsive.css`, `icon?family=Material+Icons`, `cart.css`, `addbygoogle.js?client=ca-p...`, `logo.png`, `girl2.jpg`, `girl1.jpg`, `girl3.jpg`, `email-decode.min.js`, `jquery.js`, `bootstrap.min.js`, `jquery.scrollUp.min.js`, `jquery.prettyPhoto.js`, and `main.js`. The `login` request is selected, and its response is shown in the right pane. The response is a JSON object with the following data:

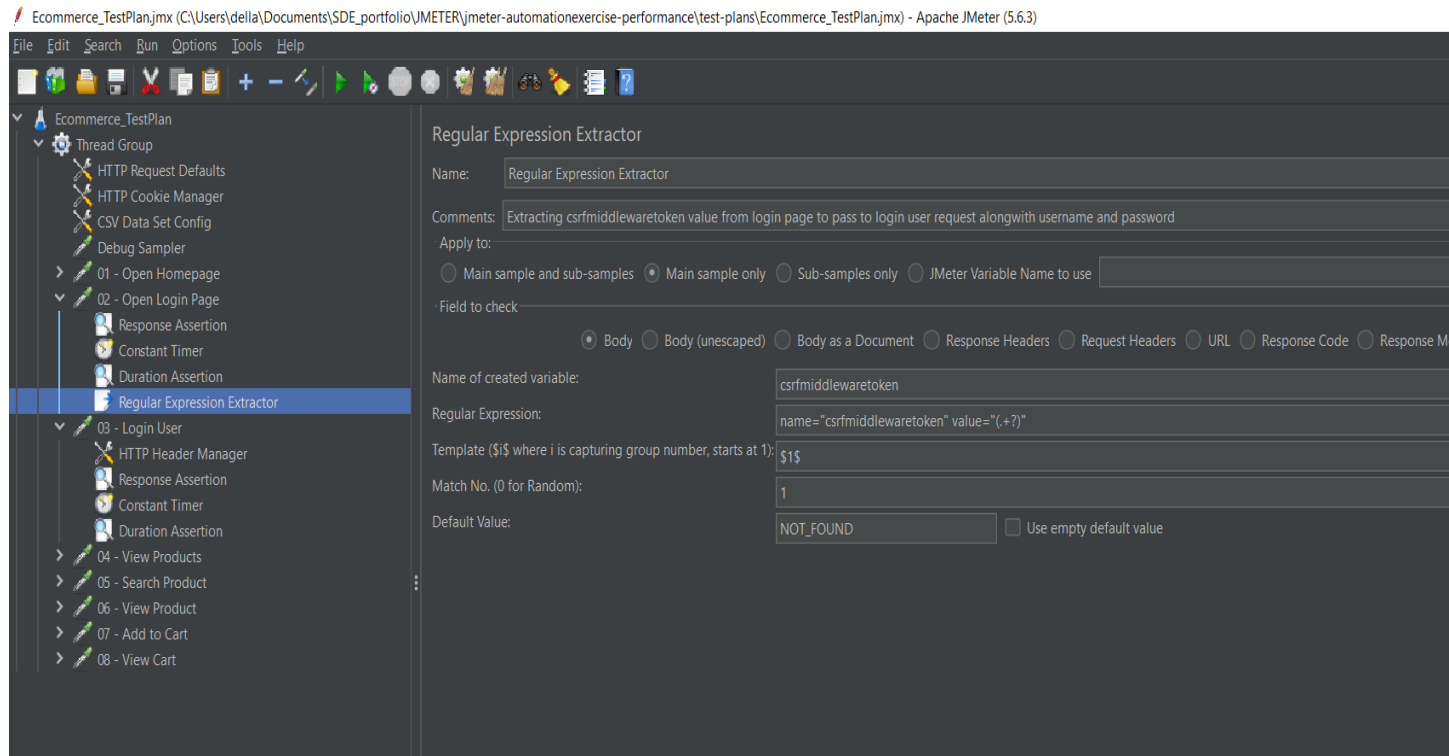
Field	Value
<code>csrfmiddlewaretoken</code>	<code>4EnMwBY10TZSNV1UGjPQ53oqh5gPyZh7UWKM8Sk6ZMg8uTC1b4YM3Ls6bch9</code>
<code>email</code>	<code>resmatest1@mail.com</code>
<code>password</code>	<code>123456</code>

The browser's taskbar at the bottom shows the Windows search bar, taskbar icons, and system tray information (93°F, 11:39 PM, 6/14/2025).

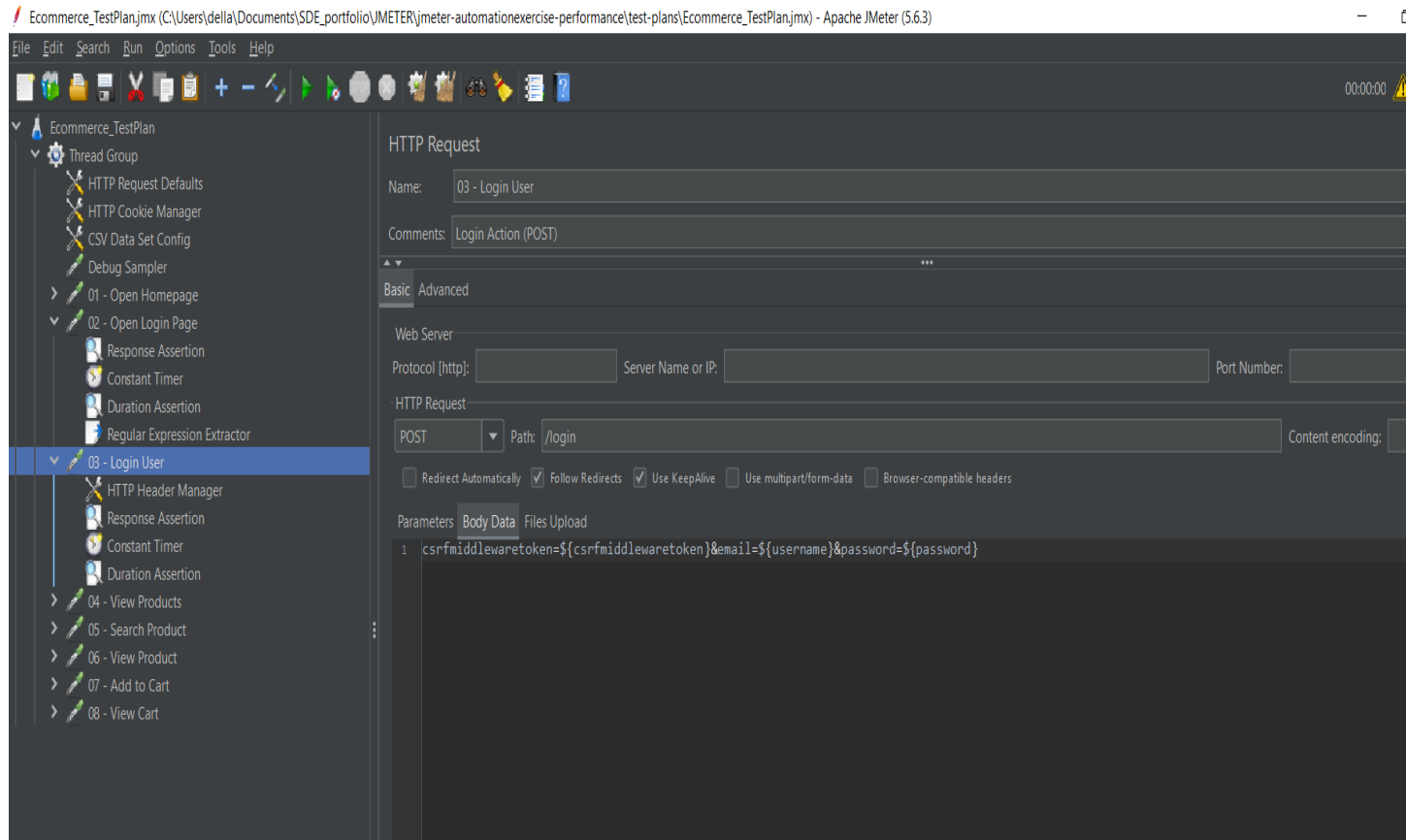
Screenshot\_3->analyzing the csrfmiddlewaretoken from Response data of login page



Screenshot\_4 -> Added Regular Expression Extractor under Open Login page request to store the token value in variable csrfmiddlewaretoken



Screenshot 5- In Login user POST request provided request body with body data including csrfmiddlewaretoken along with username and password.



## 2) Add to Cart – 403 Forbidden Error

### Issue:

The JMeter request to the `/add_to_cart` endpoint failed as well as the request method given was POST which is wrong.

### Debugging Approach:

- Opened **Developer Tools** in the browser and triggered a product add-to-cart action manually.
- Monitored the **network requests** to inspect the correct **URL path, query parameters, and request method**.
- Realized the original JMeter request was missing required query parameters and was having POST method instead of GET method.

### Fix Implemented:

- ✓ Corrected the URL path in JMeter to include the required query string:
- ✓ Ensured the request method matched what was observed in the browser (GET).

## Outcome:

✅ The request successfully added the product to the cart, resolving the 404 error.

## Screenshot\_1- 403 error

Ecommerce\_TestPlan.jmx (C:\Users\della\Documents\Testing course learning and Github portfolio\JMETER\jmeter-automationexercise-performance\Ecommerce\_TestPlan.jmx) - /

File Edit Search Run Options Tools Help

HTTP Header Manager  
HTTP Cookie Manager  
CSV Data Set Config  
Debug Sampler  
01 - Open Homepage  
Response Assertion  
Duration Assertion  
02 - Open Login Page  
Response Assertion  
Constant Timer  
Duration Assertion  
Regular Expression Extractor  
03 - Login User  
Response Assertion  
Constant Timer  
Duration Assertion  
04 - View Products  
Response Assertion  
Constant Timer  
Duration Assertion  
05 - Search Product  
Response Assertion  
Constant Timer  
Duration Assertion  
06 - View Product  
Response Assertion  
Constant Timer  
Duration Assertion  
07 - Add to Cart  
Response Assertion  
Constant Timer  
Duration Assertion  
08 - View Cart  
Response Assertion  
Constant Timer  
Duration Assertion

View Results Tree

Name: View Results Tree

Comments:

Write results to file / Read from file

Filename

Search: Case sensitive Regular exp. Search Reset

Text

Sampler result Request Response data

- ✓ Debug Sampler
- ✓ 01 - Open Homepage
- ✓ 02 - Open Login Page
- > ✓ 03 - Login User
- ✓ 04 - View Products
- ✓ 05 - Search Product
- ✓ 06 - View Product
- ✗ 07 - Add to Cart
  - ✗ Response Assertion
- ✓ 08 - View Cart

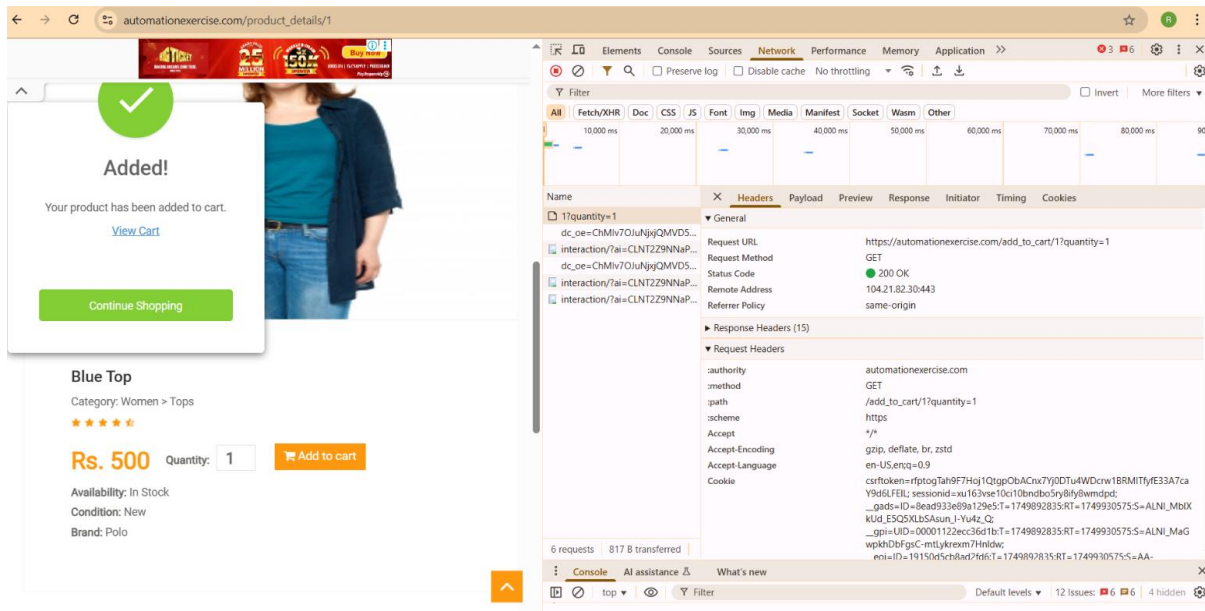
Thread Name:Thread Group 1-1  
Sample Start:2025-06-14 23:37:18 GMT+04:00  
Load time:291  
Connect Time:0  
Latency:291  
Size in bytes:3255  
Sent bytes:663  
Headers size in bytes:724  
Body size in bytes:2531  
Sample Count:1  
Error Count:1  
Data type ("text"|"bin"|""):text  
Response code:403  
Response message:Forbidden

HTTPSampleResult fields:  
ContentType: text/html  
DataEncoding: utf-8

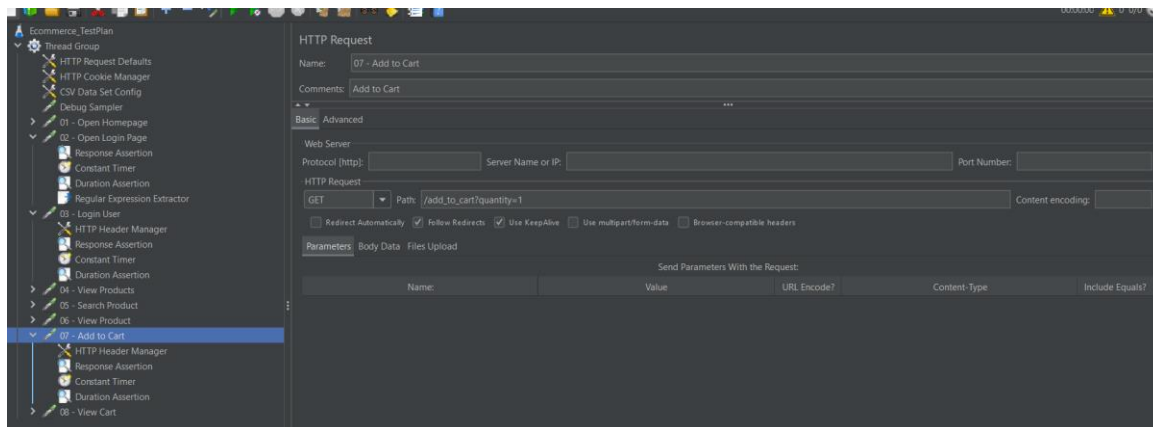
Scroll automatically?

Raw Parsed


## Screenshot\_2- Analyzed the path and request method through developertools



Screenshot\_3-Update correct path and request method



### 3) Assertion Failed – Incorrect Response Check

- **Issue:** Assertion failed because I used an incorrect text pattern.
- **Details:** The assertion was looking for "Added to Cart" in the response body.
- **Fix:** Checked the actual response data in the View Results Tree and updated the assertion to match the correct response text.
-  After this fix, the assertion passed.



Text

✓ Debug Sampler

✓ 01 - Open Homepage

✓ 02 - Open Login Page

> ✓ 03 - Login User

✓ 04 - View Products

✓ 05 - Search Product

✓ 06 - View Product

▼ ✓ ✖ 07 - Add to Cart

✖ Response Assertion

✓ 08 - View Cart

Sampler resultRequestResponse data

Thread Name:Thread Group 1-1

Sample Start:2025-06-15 00:11:38 GMT+04:00

Load time:291

Connect Time:0

Latency:291

Size in bytes:6692

Sent bytes:629

Headers size in bytes:720

Body size in bytes:5972

Sample Count:1

Error Count:1

Data type ("text"|"bin"|""):text

Response code:404

Response message:Not Found

...

HTTPSampleResult fields:

ContentType: text/html

DataEncoding: utf-8