Automation Testing Capstone Project

Create a Testing Framework for Sporty Shoes Website

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Problem Statement and Motivation Real-Time Scenario:

Sporty Shoes has an e-commerce website that has the following existing features in place: I used https://neemans.com/ for the task.

• Users can view products , I wrote some functionality for that also .

• If users want to purchase something, they can first sign up and then log in

• Users can add multiple items to their cart and do a checkout.

• Users have a dashboard that lets them edit their profile, view past purchases, and view their cart

• Once users do a checkout, the items are cleared from their cart and an order is generated which is stored in their order history The above application is already functional. What is needed now is to add a testing layer that will ensure that everything is passed through QA.

Task:

The following tasks outline the testing framework creation:

1. Add additional code to the original project to add a REST API module. This module will have two API endpoints:

• Retrieve the list of all products in the store

• Retrieve the list of all registered users

2. Create Selenium scripts to test all the pages in the web app

3. Do unit testing for all the backend classes and methods

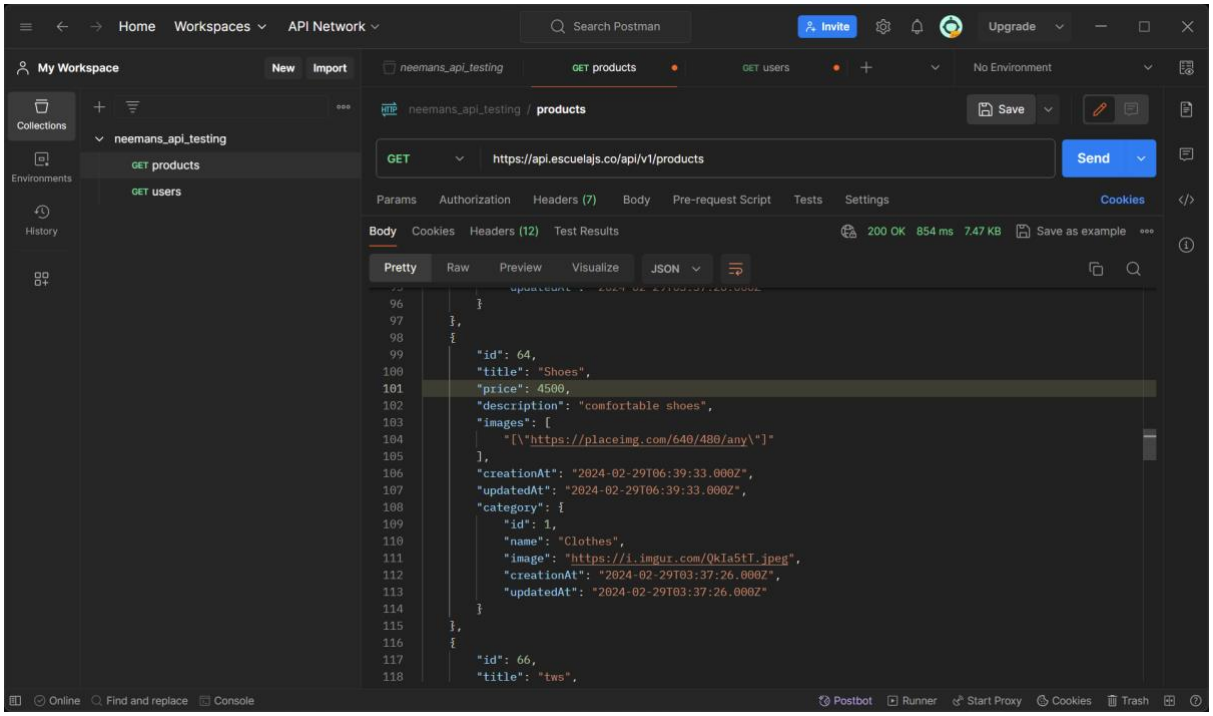
4. Create JMeter scripts to do load testing of the homepage and the product detail page

How to execute :

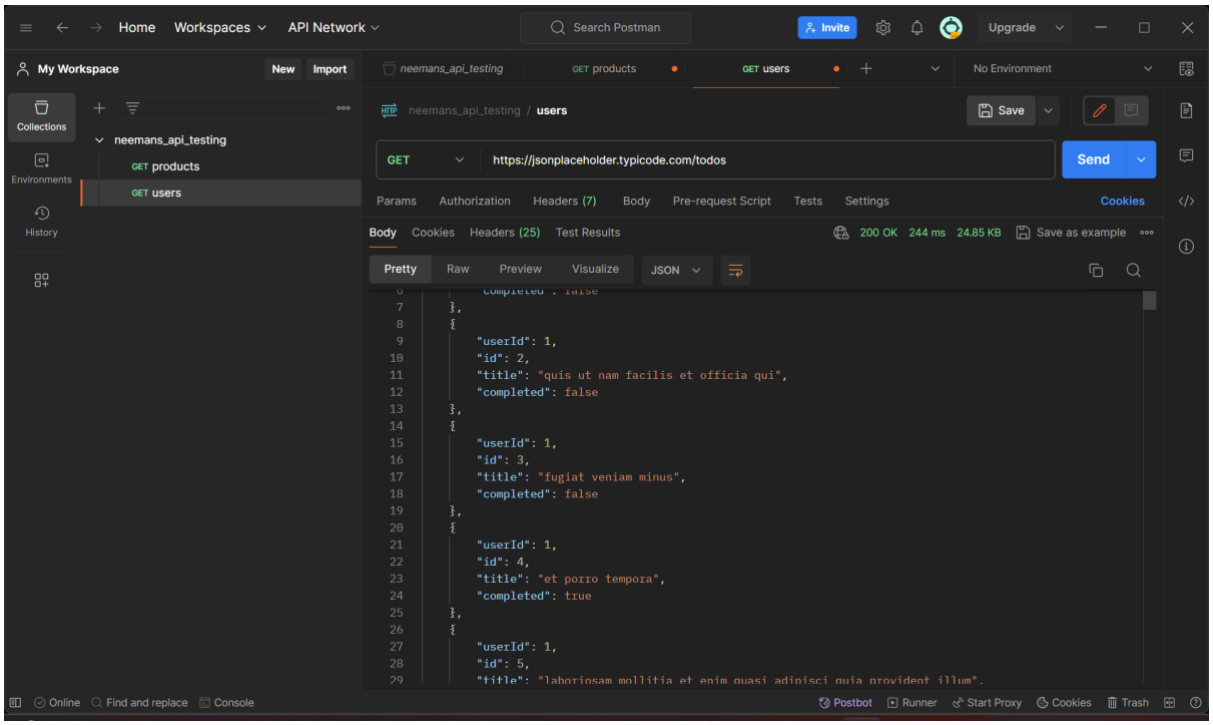
1. Import the project in eclipse IDE
2. Identify testNG.xml
3. Run testNG.xml
4. Open the jmiter file provide there and run it .

Task 1 Screenshots :

For products :

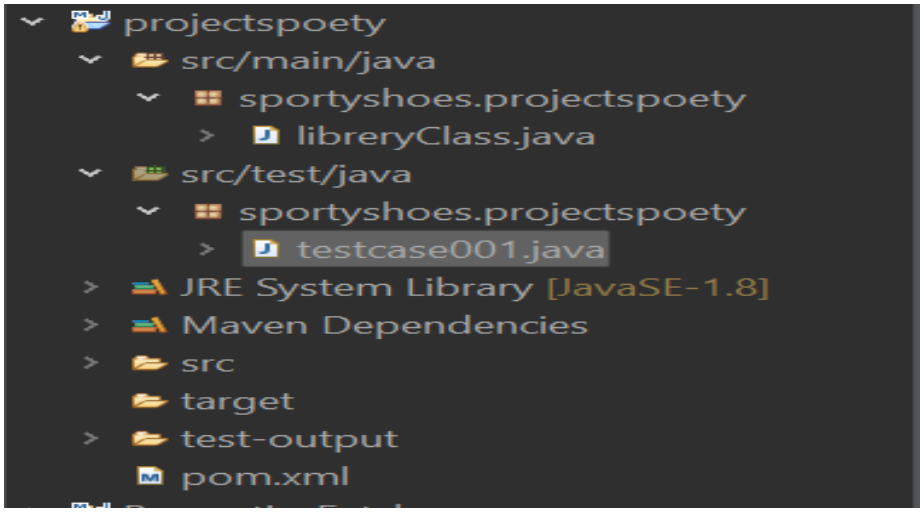


For users :



Task 2 & 3 Screenshots :

Folder structure :

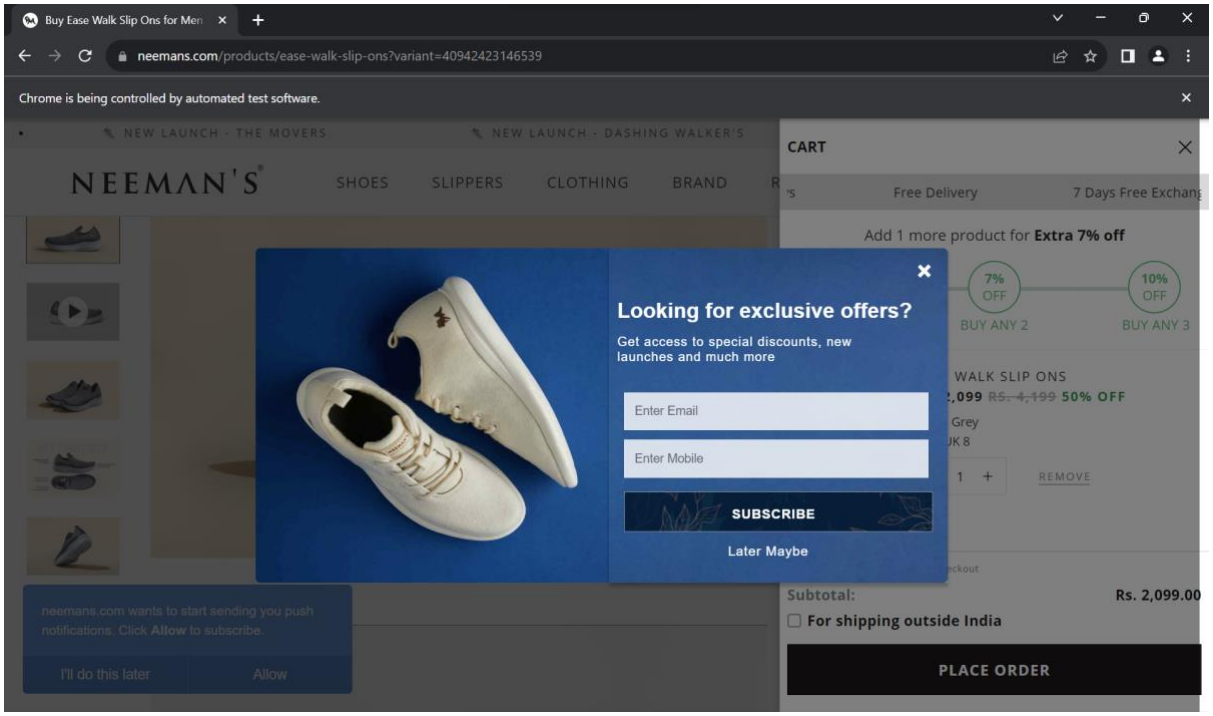


Moduler code :

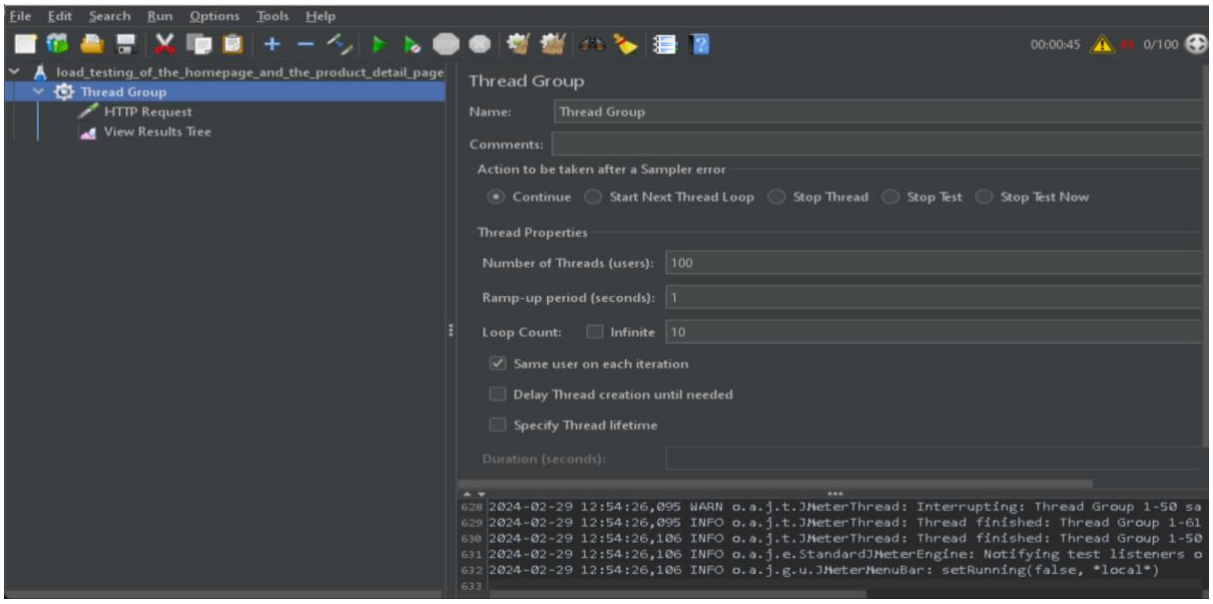
libreryClass.java × testcase001.java

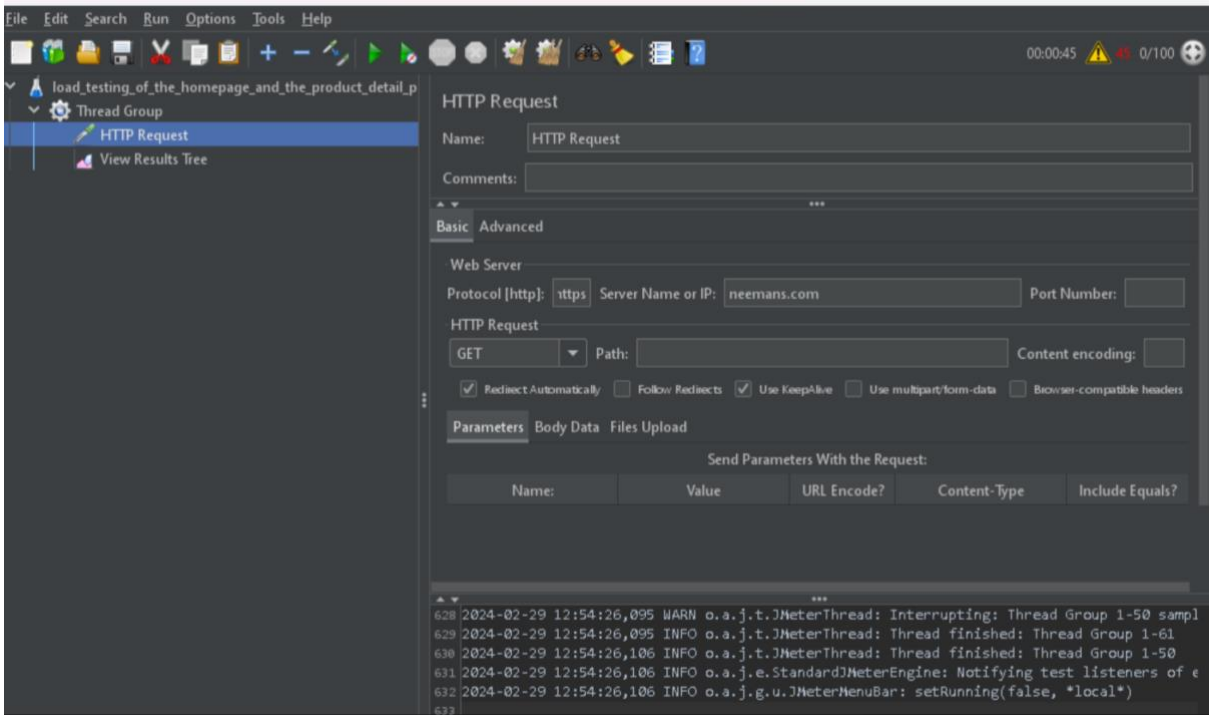
```java
package sportyshoes.projectspoety;

import java.util.NoSuchElementException;

import org.junit.Assert;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;




public class libreryClass {
    WebDriver driver;
   public void InitDriver(WebDriver driver) {
        this.driver = driver;
   }

   public void launchApp(String url) {
    driver.get(url);
    System.out.println("The app is launched successfully");
   }
   public void TypeSomthing(String selector ,String value) {
    driver.findElement(By.xpath(selector)).sendKeys(value);
   }
   public void clickOn(String selector) {
    driver.findElement(By.xpath(selector)).click();
   }
   public void checkTitle(String expectedTitle) {
       Assert.assertEquals(driver.getTitle(), expectedTitle, "Page title doesn't match expected title");
   }
   public void isdisplaiedClick(String loc) {
       try {
       if(driver.findElement(By.xpath(loc)).isDisplayed()) {
           driver.findElement(By.xpath(loc)).click();
           System.out.println("Element is displayed.");
       }
       }
       catch (NoSuchElementException e) {
            System.out.println("Element is not displayed.");
        }
   }

}


```

The popup :

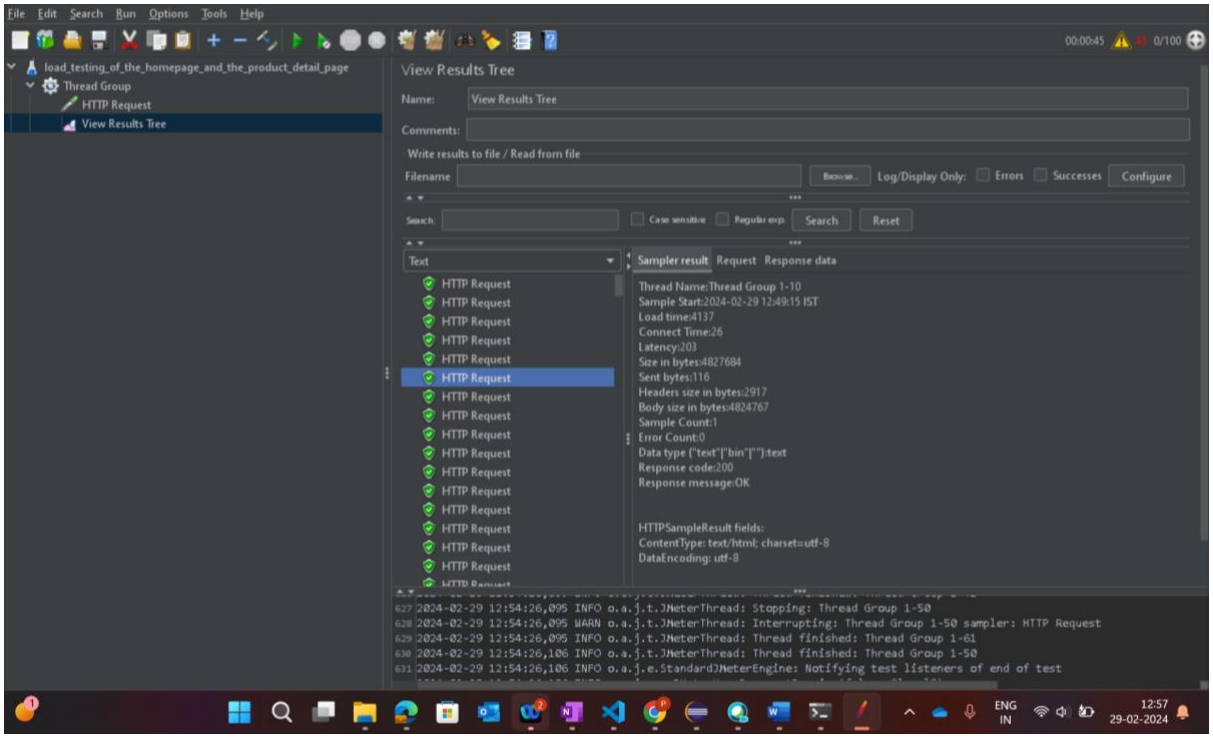


Task 4 Screenshots :





Result of the load testing .


File Edit Search Run Options Tools Help
00:00:45 0/100
load_testing_of_the_homepage_and_the_product_detail_page
Thread Group
HTTP Request
View Results Tree
View Results Tree
Name: View Results Tree
Comments:
Write results to file / Read from file
Filename
Browse...
Log/Display Only: Errors Successes
Configure
Search:
Case sensitive
Regular exp.
Search
Reset
Text
HTTP Request
Sampler result
Request
Response data
Thread Name:Thread Group 1-10
Sample Start:2024-02-29 12:49:15 IST
Load time:4137
Connect Time:26
Latency:203
Size in bytes:4827684
Sent bytes:116
Headers size in bytes:2917
Body size in bytes:4824767
Sample Count:1
Error Count:0
Data type ("text"|"bin"|""):text
Response code:200
Response message:OK
HTTPSampleResult fields:
ContentType: text/html; charset=utf-8
DataEncoding: utf-8
627 2024-02-29 12:54:26,095 INFO o.a.j.t.JMeterThread: Stopping: Thread Group 1-50
628 2024-02-29 12:54:26,095 WARN o.a.j.t.JMeterThread: Interrupting: Thread Group 1-50 sampler: HTTP Request
629 2024-02-29 12:54:26,095 INFO o.a.j.t.JMeterThread: Thread finished: Thread Group 1-61
630 2024-02-29 12:54:26,106 INFO o.a.j.t.JMeterThread: Thread finished: Thread Group 1-50
631 2024-02-29 12:54:26,106 INFO o.a.j.e.StandardJMeterEngine: Notifying test listeners of end of test
ENG
IN
12:57
29-02-2024