

**Name: Sangeetha Venkatesan**

**Git Hub Link:** [sangeethavenkatesan-19/Project-Final-Capstone-A \(github.com\)](https://github.com/sangeethavenkatesan-19/Project-Final-Capstone-A)

**Capstone Project: Create a Testing Framework for Sporty Shoes Website**

**Project objective:**

The objective is to develop a comprehensive QA and test suite for the Sporty Shoes website. The QA effort will require the following:

1. Browser-based end-user testing using Selenium WebDriver with TestNG Framework.
2. Load Testing using JMeter.
3. API Testing with Cucumber.
4. API Testing with Postman and Rest Assured.

The end deliverables will be executable scripts and modules that can be run on demand for testing the Sporty Shoes web app.

**Background of the problem statement:**

Sporty Shoes has an e-commerce website that has the following existing features in place:

- Users can view products.
- 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.

**Implementations with screenshots, code:**

The following deliverables are done:

**1. Automate the below API endpoints using Rest-Assured**

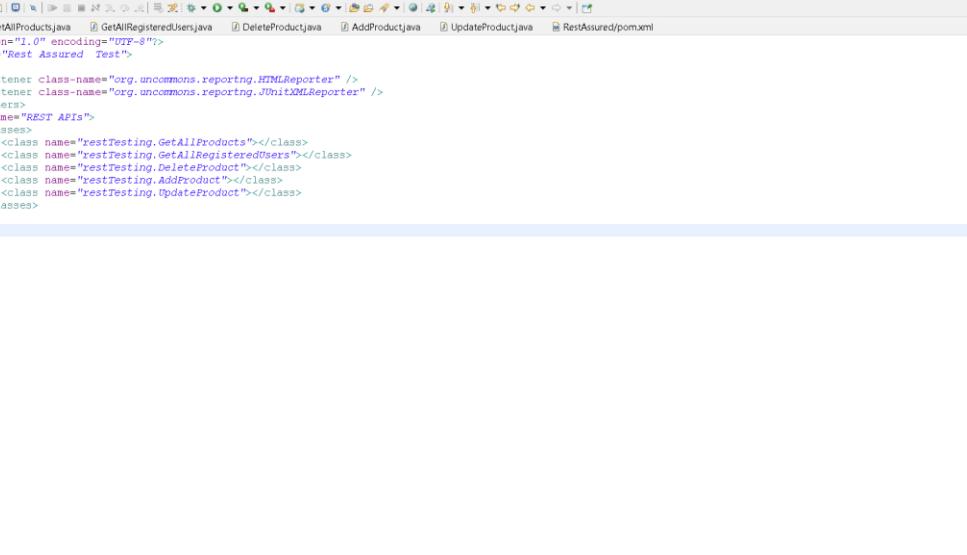
- Retrieve the list of all products in the store.
- Retrieve the list of all registered users.
- Add the product.
- Delete the product.
- Update the product.

## **Screenshots Of Code:**

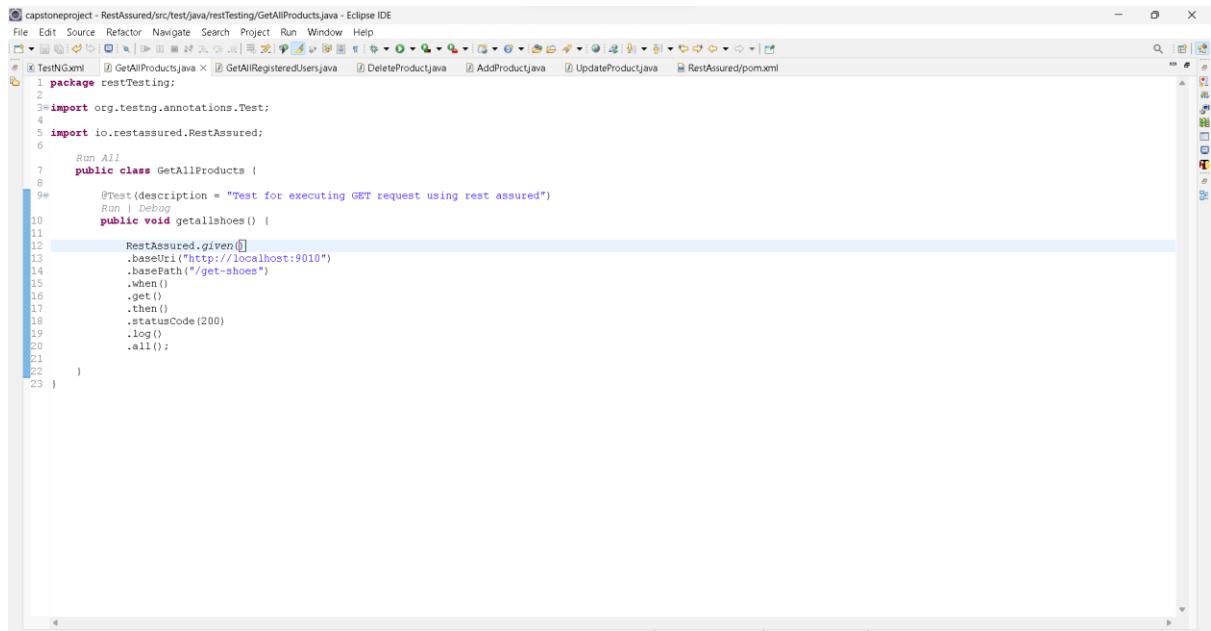
The screenshot shows the Eclipse IDE interface with the following details:

- Project Explorer View:** Shows the project structure. It includes a Cucumber feature named "Cucumber\_Gherkins" and several Java source files: `src/main/java`, `src/main/resources`, `src/test/java`, and `src/test/resources`. The `src/test/java` folder contains test classes for `AddProduct.java`, `DeleteProduct.java`, `GetAllProducts.java`, `GetAllRegisteredUsers.java`, and `UpdateProduct.java`.
- TestNG XML View:** Displays the `TestNG.xml` configuration file.
- POM.xml View:** Displays the `pom.xml` file content, which defines the project's build configuration, dependencies, and testing frameworks.

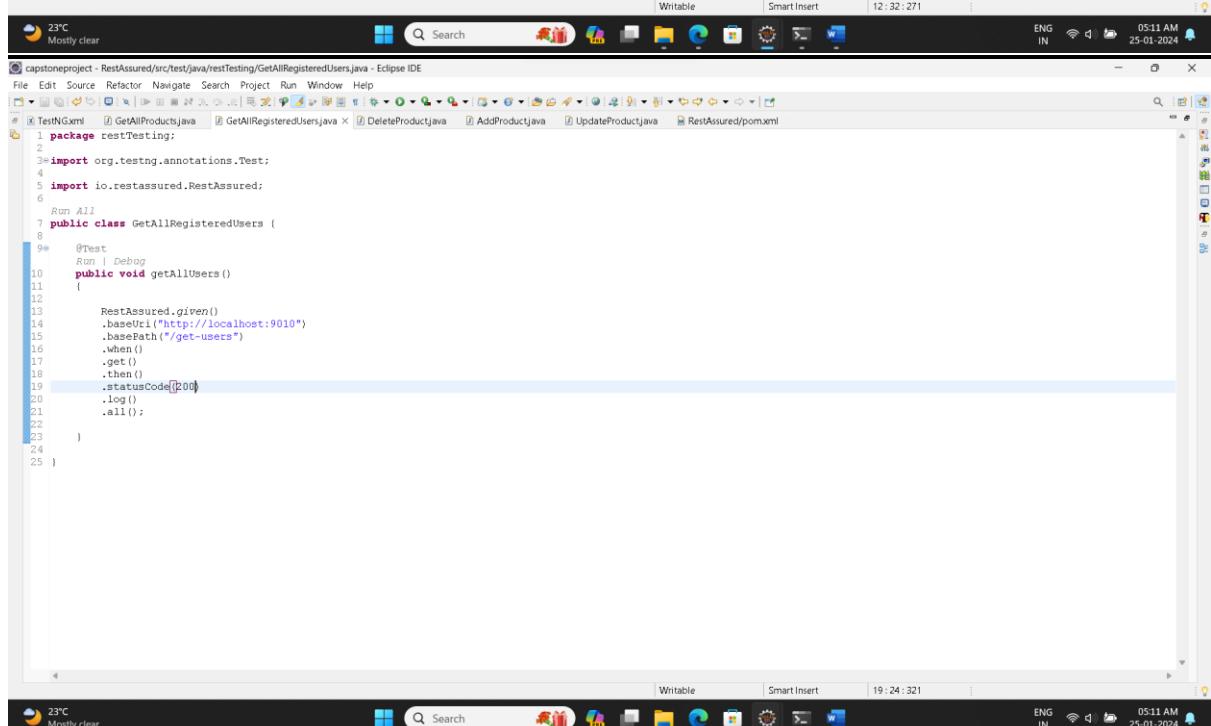
```
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://maven.apache.org/4.0.0/xsd/maven-4.0.0.xsd">
  <modelVersion>4.0.0</modelVersion>
  <groupId>Capstone</groupId>
  <artifactId>Project</artifactId>
  <version>0.0.1-SNAPSHOT</version>
  <name>RestAssured</name>
  <properties>
    <project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>
    <rest_assured.version>4.0.0</rest_assured.version>
    <testing.version>7.8.0</testing.version>
  </properties>
  <dependencies>
    <!-- testing -->
    <dependency>
      <groupId>org.testng</groupId>
      <artifactId>testng</artifactId>
      <version>${testing.version}</version>
      <scope>test</scope>
    </dependency>
    <!-- rest-assured -->
    <dependency>
      <groupId>io.rest-assured</groupId>
      <artifactId>rest-assured</artifactId>
      <version>${rest_assured.version}</version>
      <scope>test</scope>
    </dependency>
    <!-- rest-assured/json-path -->
    <dependency>
      <groupId>io.rest-assured</groupId>
      <artifactId>json-path</artifactId>
      <version>${rest_assured.version}</version>
      <scope>test</scope>
    </dependency>
    <!-- rest-assured/json-schema-validator -->
    <dependency>
      <groupId>io.rest-assured</groupId>
```



```
1 <?xml version="1.0" encoding="UTF-8"?>
2<suite name="Rest Assured Test">
3<listeners>
4     <listener class-name="org.uncommons.reporting.HTMLReporter" />
5     <listener class-name="org.uncommons.reporting.JUnitXMLReporter" />
6 </listeners>
7<test name="REST APIs">
8     <classes>
9         <class name="restTesting.GetAllProducts"></class>
10        <class name="restTesting.GetAllRegisteredUsers"></class>
11        <class name="restTesting.DeleteProduct"></class>
12        <class name="restTesting.AddProduct"></class>
13        <class name="restTesting.UpdateProduct"></class>
14    </classes>
15 </test>
16</suite>
```



```
package restTesting;
import org.testng.annotations.Test;
import io.restassured.RestAssured;
Run All
public class GetAllProducts {
    @Test(description = "Test for executing GET request using rest assured")
    Run | Debug
    public void getallshoes() {
        RestAssured.given()
            .baseUri("http://localhost:9010")
            .basePath("/get-shoes")
            .when()
            .get()
            .then()
            .statusCode(200)
            .log()
            .all();
    }
}
```



```
package restTesting;
import org.testng.annotations.Test;
import io.restassured.RestAssured;
Run All
public class GetAllRegisteredUsers {
    @Test
    Run | Debug
    public void getAllUsers() {
        RestAssured.given()
            .baseUri("http://localhost:9010")
            .basePath("/get-users")
            .when()
            .get()
            .then()
            .statusCode(200)
            .log()
            .all();
    }
}
```

```
capstoneproject - RestAssured/src/test/java/restTesting/DeleteProduct.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
TestNGxml GetAllProducts.java GetAllRegisteredUsers.java DeleteProduct.java AddProductJava UpdateProductJava RestAssured/pom.xml
1 package restTesting;
2
3 import org.testng.annotations.Test;
4
5 import io.restassured.RestAssured;
6
7 Run All
8
9 @Test
10 public class DeleteProduct {
11
12     RestAssured.given()
13         .baseUri("http://localhost:9010")
14         .basePath("/delete-shoe")
15         .queryParam("id", "1020")
16         .when().delete()
17         .then().log().all();
18
19
20 }
21 }
```

```
capstoneproject - RestAssured/src/test/java/restTesting/AddProduct.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
TestNGxml GetAllProducts.java GetAllRegisteredUsers.java DeleteProduct.java AddProductJava UpdateProductJava RestAssured/pom.xml
1 package restTesting;
2
3 import org.testng.annotations.Test;
4
5 import io.restassured.RestAssured;
6
7 Run All
8
9
10 public class AddProduct {
11     RestAssured.given()
12         .baseUri("http://localhost:9010")
13         .basePath("/add-shoe")
14         .queryParam("id", "1020")
15         .queryParam("image", "www.image.com")
16         .queryParam("name", "New")
17         .queryParam("category", "Running")
18         .queryParam("sizes", "5,6,7")
19         .queryParam("price", "2000")
20         .when()
21         .post()
22         .then()
23         .log().all();
24
25 }
26 }
```

```
capstoneproject - RestAssured/src/test/java/restTesting/UpdateProductJava - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
TestNGxml GetAllProducts.java GetAllRegisteredUsers.java DeleteProduct.java AddProductJava UpdateProductJava RestAssured/pom.xml
1 package restTesting;
2
3 import org.testng.annotations.Test;
4
5 import io.restassured.RestAssured;
6
7 Run All
8
9
10 public class UpdateProductJava {
11     RestAssured.given()
12         .baseUri("http://localhost:9010")
13         .basePath("/update-shoe")
14         .queryParam("id", "1020")
15         .queryParam("name", "New")
16         .queryParam("category", "Running")
17         .queryParam("sizes", "5,6,7")
18         .queryParam("price", "2000")
19         .when()
20         .put()
21         .then()
22         .log().all();
23
24 }
25 }
```

```
capstoneproject - RestAssured/src/test/java/restTesting/UpdateProduct.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
TestNGxml GetAllProducts.java GetAllRegisteredUsers.java DeleteProduct.java AddProduct.java UpdateProduct.java RestAssured/pom.xml
package restTesting;
import org.testng.annotations.Test;
import io.restassured.RestAssured;
public class UpdateProduct {
    @Test
    public void updateProduct() {
        RestAssured.given()
            .baseUri("http://localhost:9010")
            .basePath("/update-shoe")
            .queryParam("id", "1020")
            .queryParam("image", "www.image123.com")
            .queryParam("name", "Reebok")
            .queryParam("category", "Running")
            .queryParam("sizes", "5,6,7")
            .queryParam("price", "2500")
            .when()
            .put()
            .then()
            .log().all();
    }
}
```

## Output of the Code: Running as a suite: 1.Get All Products:

```
capstoneproject - RestAssured/TestNG.xml - Eclipse IDE
File Edit Source Navigate Project Run Design Window Help
Problems Servers Data Source Explorer Properties Console Results of running suite
[RestAssured] RestAssured/TestNG.xml [TestNG] C:\Program Files\Java\jdk-18.0.1\bin\javaw.exe (25-Jan-2024, 5:13:14 am - 5:13:23 am) [pid: 11716]
HTTP/1.1 200 OK
Content-type: application/json
Transfer-Encoding: chunked
Date: Wed, 24 Jan 2024 23:43:20 GMT
Keep-Alive: timeout=60
Connection: keep-alive
{
    "code": 101,
    "message": "13 Shoes Fetched Successfully.",
    "shoes": [
        {
            "id": 101,
            "image": "1.png",
            "name": "BlueWave Running Shoes",
            "category": "Sports",
            "sizes": "7, 8, 9",
            "price": 2000
        },
        {
            "id": 201,
            "image": "2.png",
            "name": "Elegant Leather Loafers",
            "category": "Formal",
            "sizes": "7, 8, 9",
            "price": 3000
        },
        {
            "id": 301,
            "image": "3.png",
            "name": "Neoflex Athletic Shoes",
            "category": "Sports",
            "sizes": "7, 8, 9, 10",
            "price": 4500
        },
        {
            "id": 401,
            "image": "4.png",
            "name": "Powerstride Training Shoes",
            "category": "Sports",
            "sizes": "6, 7, 8, 9",
            "price": 6000
        }
    ]
}
```

```

capstoneproject - RestAssured/TestNG.xml - Eclipse IDE
File Edit Source Navigate Project Run Design Window Help
Problems Servers Terminal Data Source Explorer Properties Console X Results of running suite
<terminated> RestAssured/TestNG.xml [TestNG] C:\Program Files\Java\jdk-18.0.1\bin\javaw.exe (25-Jan-2024, 5:13:14 am - 5:13:23 am) [pid:11716]
},
{
  "id": 501,
  "image": "5.png",
  "name": "StreetRunner Urban Sneakers",
  "category": "Sports",
  "sizes": "7, 9",
  "price": 4000
},
{
  "id": 601,
  "image": "6.png",
  "name": "Venturelike Trail Shoes",
  "category": "Sports",
  "sizes": "5, 8, 9",
  "price": 2500
},
{
  "id": 701,
  "image": "7.png",
  "name": "EnduraGrip Sports Sneakers",
  "category": "Sports",
  "sizes": "4, 6, 9",
  "price": 5000
},
{
  "id": 801,
  "image": "8.png",
  "name": "Lightttride Performance Shoes",
  "category": "Sports",
  "sizes": "7, 8",
  "price": 1200
},
{
  "id": 901,
  "image": "9.png",
  "name": "MaxFit Pro Sports Shoes",
  "category": "Sports",
  "sizes": "7, 8, 9, 10",
  "price": 4700
},
}

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Search ENG IN 05:14 AM 25-01-2024

capstoneproject - RestAssured/TestNG.xml - Eclipse IDE
File Edit Source Navigate Project Run Design Window Help
Problems Servers Terminal Data Source Explorer Properties Console X Results of running suite
<terminated> RestAssured/TestNG.xml [TestNG] C:\Program Files\Java\jdk-18.0.1\bin\javaw.exe (25-Jan-2024, 5:13:14 am - 5:13:23 am) [pid:11716]
},
{
  "id": 901,
  "image": "9.png",
  "name": "MaxFit Pro Sports Shoes",
  "category": "Sports",
  "sizes": "7, 8, 9, 10",
  "price": 4700
},
{
  "id": 111,
  "image": "10.png",
  "name": "Rapidplex Running Shoes",
  "category": "Sports",
  "sizes": "4, 5, 6",
  "price": 2500
},
{
  "id": 211,
  "image": "11.png",
  "name": "ZenFlex Sports Sneakers",
  "category": "Sports",
  "sizes": "7, 8, 9",
  "price": 6000
},
{
  "id": 311,
  "image": "12.png",
  "name": "Trailblaze Adventure Shoes",
  "category": "Sports",
  "sizes": "5, 6, 9",
  "price": 7500
},
{
  "id": 1020,
  "image": "www.imgur123.com",
  "name": "Reebok",
  "category": "Running",
  "sizes": "5, 6, 7",
  "price": 2500
}
}

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Mostly clear
Search ENG IN 05:14 AM 25-01-2024

```

## 2. Get All Users:

```
capstoneproject - RestAssured/TestNGxml - Eclipse IDE
File Edit Source Navigate Search Project Run Design Window Help
Problems Servers Terminal Data Source Explorer Properties Console X Results of running suite
<terminated> RestAssured/TestNGxml [TestNG] C:\Program Files\Java\jdk-18.0.1\bin\javaw.exe (25-Jan-2024, 5:13:14 am - 5:13:23 am) [pid: 11716]
    "category": "Running",
    "sizes": "5,6,7",
    "price": 2500
}
]
}
HTTP/1.1 200
Content-Type: application/json
Transfer-Encoding: chunked
Date: Wed, 24 Jan 2024 23:43:20 GMT
Keep-Alive: timeout=60
Connection: keep-alive

{
  "code": 101,
  "message": "3 Users Fetched Successfully.",
  "users": [
    {
      "name": "John Watson",
      "email": "john@example.com",
      "password": "john123"
    },
    {
      "name": "Fionna Flynn",
      "email": "fionna@example.com",
      "password": "fionna123"
    },
    {
      "name": "Sia Sen",
      "email": "sia@example.com",
      "password": "sia123"
    }
  ]
}
HTTP/1.1 200
Content-Type: application/json
Transfer-Encoding: chunked
Date: Wed, 24 Jan 2024 23:43:20 GMT
Keep-Alive: timeout=60
Connection: keep-alive

```

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### 3.Delete a Product:

```
capstoneproject - RestAssured/TestGxml - Eclipse IDE
File Edit Source Navigate Search Project Run Design Window Help
Problems Servers Terminal Data Source Explorer Properties Console X Results of running suite
<terminated> RestAssured/TestGxml [TestNG] C:\Program Files\Java\jdk-18.0.1\bin\javaw.exe (25-Jan-2024, 5:13:14 am - 5:13:23 am) [pid: 11716]
    "name": "John Watson",
    "email": "john@example.com",
    "password": "john123"
},
{
  "name": "Fionna Flynn",
  "email": "fionna@example.com",
  "password": "fionna123"
},
{
  "name": "Sia Sen",
  "email": "sia@example.com",
  "password": "sia123"
}
]
}
HTTP/1.1 200
Content-Type: application/json
Transfer-Encoding: chunked
Date: Wed, 24 Jan 2024 23:43:20 GMT
Keep-Alive: timeout=60
Connection: keep-alive

{
  "code": 101,
  "message": "Shoe with ID 1020 Deleted Successfully."
}
HTTP/1.1 200
Set-Cookie: JSESSIONID=3A72EF27F25C27C2B1C68156EBD4ADD; Path=/; HttpOnly
Content-Type: application/json
Transfer-Encoding: chunked
Date: Wed, 24 Jan 2024 23:43:20 GMT
Keep-Alive: timeout=60
Connection: keep-alive

{
  "code": 101,
  "message": "Nike Added Successfully.",
  "shoe": [
    {
      "id": 1020,
      "image": "www.imgur.com",
      "name": "Nike"
    }
  ]
}
```

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### 4.Add a Product:

```
capstoneproject - RestAssured/TestNGxml - Eclipse IDE
File Edit Source Navigate Search Project Run Design Window Help
Problems Servers Terminal Data Source Explorer Properties Console X Results of running suite
terminated> RestAssured/TestNGxml [TestNG] C:\Program Files\Java\jdk-18.0.1\bin\javaw.exe (25-Jan-2024, 5:13:14 am - 5:13:23 am) [pid: 11716]
message: Since Wed, 24 Jan 2024 23:43:20 GMT
HTTP/1.1 200
Set-Cookie: JSESSIONID=3A72EF27F25C27C2B1C68156EBD4ADD; Path=/; HttpOnly
Content-Type: application/json
Transfer-Encoding: chunked
Date: Wed, 24 Jan 2024 23:43:20 GMT
Keep-Alive: timeout=60
Connection: keep-alive
{
    "code": 101,
    "message": "Nike Added Successfully.",
    "shoe": {
        "id": 1020,
        "image": "www.img.com",
        "name": "Nike",
        "category": "Running",
        "sizes": "5,6,7",
        "price": 2000
    }
}
HTTP/1.1 200
Set-Cookie: JSESSIONID=314F3550A7A396E4A0BC47AB1E50A5B2; Path=/; HttpOnly
Content-Type: application/json
Transfer-Encoding: chunked
Date: Wed, 24 Jan 2024 23:43:20 GMT
Keep-Alive: timeout=60
Connection: keep-alive
{
    "code": 101,
    "message": "Reebok Updated Successfully.",
    "shoe": {
        "id": 1020,
        "image": "www.img123.com",
        "name": "Reebok",
        "category": "Running",
        "sizes": "5,6,7",
        "price": 2500
    }
}

```



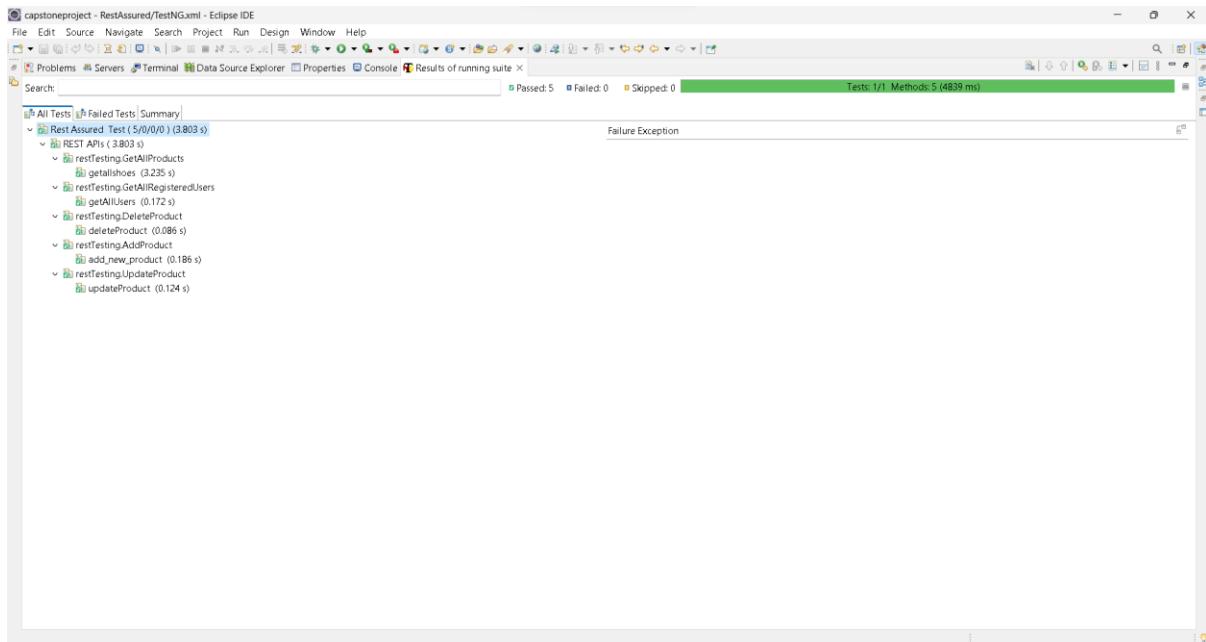
## 5.Update a Product:

```
capstoneproject - RestAssured/TestGxml - Eclipse IDE
File Edit Source Navigate Search Project Run Design Window Help
Problems Servers Terminal Data Source Explorer Properties Console X Results of running suite
terminated> RestAssured/TestGxml [TestNG] C:\Program Files\Java\jdk-18.0.1\bin\javaw.exe (25-Jan-2024, 5:13:14 am - 5:13:23 am) [pid: 11716]
message: Since 10:10:20 Deleted successfully.
HTTP/1.1 200
Set-Cookie: JSESSIONID=3A72EF27F25C27C2B1C68156EBD4ADD; Path=/; HttpOnly
Content-Type: application/json
Transfer-Encoding: chunked
Date: Wed, 24 Jan 2024 23:43:20 GMT
Keep-Alive: timeout=60
Connection: keep-alive
{
    "code": 101,
    "message": "Nike Added Successfully."
}
HTTP/1.1 200
Set-Cookie: JSESSIONID=314F3550A7A396E4A0BC47AB1E50A5B2; Path=/; HttpOnly
Content-Type: application/json
Transfer-Encoding: chunked
Date: Wed, 24 Jan 2024 23:43:20 GMT
Keep-Alive: timeout=60
Connection: keep-alive
{
    "code": 101,
    "message": "Reebok Updated Successfully."
}

```



## TestNG Suite Results:



The screenshot shows a web browser window titled "TestNG Reports for the rest assured suite:". The address bar shows the URL "C:/Users/harih/OneDrive/Desktop/Desktop/Mphasis/CapstoneProject/I.RestAssured/test-output/html/index.html". The page content is a "Test Results Report" generated by TestNG with ReportNG at 05:13 IST on Thursday 25 January 2024. The report details a "Rest Assured Test" for "REST APIs". The summary table shows:

	Duration	Passed	Skipped	Failed	Pass Rate
REST APIs	3.803s	5	0	0	100%
Total		5	0	0	100%

The left sidebar shows a tree view of the test results with "Rest Assured Test" expanded, showing "REST APIs" selected.

ATE-capstoneProject-ShoeApp | localhost:9010/register-user | Test Results Report | +

File | C:/Users/harish/OneDrive/Desktop/Mphasis/CapstoneProject/1.RestAssured/test-output/html/index.html

### Test Results Report

Overview

Rest Assured Test

REST APIs

Test duration: 3.803s

**Passed Tests**

Method	Duration
restTesting.AddProduct	0.186s
add_new_product	0.186s
restTesting.DeleteProduct	0.086s
deleteProduct	0.086s
restTesting.GetAllProducts	3.235s
getallshoes	3.235s
restTesting.GetAllRegisteredUsers	0.172s
getAllUsers	0.172s
restTesting.UpdateProduct	0.124s
updateProduct	0.124s

ATE-capstoneProject-ShoeApp | localhost:9010/register-user | Test Results Report | TestNG reports | +

File | C:/Users/harish/OneDrive/Desktop/Mphasis/CapstoneProject/1.RestAssured/test-output/indexhtml#

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Search

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### Test results

1 suite

All suites

Rest Assured Test

Info

- C:/Users/harish/OneDrive/Desktop/Mphasis/CapstoneProject/1.RestAssured/test-output/indexhtml#
- 1 test
- 0 groups
- Times
- Reporter output
- Ignored methods
- Chronological view

Results

- 5 methods, 5 passed
- Passed methods (show)



Test Results Report

TestNG reports

Switch Retro

Test results

1 suite

Times for Rest Assured Test

Total running time: 3 seconds

Number	Method	Class	Time (ms)
0	getallshoes	restTesting.GetAllProducts	3,235
1	add_new_product	restTesting.AddProduct	186
2	getAllUsers	restTesting.GetAllRegisteredUsers	172
3	updateProduct	restTesting.UpdateProduct	124
4	deleteProduct	restTesting.DeleteProduct	86

All suites

Rest Assured Test

Info

- C:\Users\harish\OneDrive\Desktop\Mphasis\CapstoneProject\ATE-capstoneProject-ShoeApp\src\main\java\com\harish\shoeapp\controller
- 1 test
- 0 groups
- Times
- Reporter output
- Ignored methods
- Chronological view

Results

- 5 methods, 5 passed
- Passed methods (show)

Test Results Report

TestNG reports

Switch Retro

Test results

1 suite

Methods in chronological order

restTesting.GetAllProducts	getallshoes	0 ms
restTesting.GetAllRegisteredUsers	getAllUsers	3248 ms
restTesting.DeleteProduct	deleteProduct	3424 ms
restTesting.AddProduct	add_new_product	3514 ms
restTesting.UpdateProduct	updateProduct	3704 ms

All suites

Rest Assured Test

Info

- C:\Users\harish\OneDrive\Desktop\Mphasis\CapstoneProject\ATE-capstoneProject-ShoeApp\src\main\java\com\harish\shoeapp\controller
- 1 test
- 0 groups
- Times
- Reporter output
- Ignored methods
- Chronological view

Results

- 5 methods, 5 passed
- Passed methods (show)

2. Create Selenium scripts using TestNG to test all the pages in the web app that will automate:

- Login page
- Registration Page
- Add Product to cart page.
- Place Order Page

### Screenshots Of Code and Output:

The screenshot shows two instances of the Eclipse IDE running side-by-side on a Windows desktop. Both instances have the title bar "capstoneproject - TestNG/pom.xml - Eclipse IDE".

**Top Window (capstoneproject - TestNG/pom.xml):**

- Project Explorer:** Shows the project structure with files like RegistrationPage.java, LoginPage.java, AddToCart.java, PlaceOrder.java, and TestNG.xml.
- POM.xml Content:**

```
1<?xml version="1.0" encoding="UTF-8"?>
2<!-- Bind to grammar/schema... -->
3<suite name="Sporty Shoes Test Suite">
4<listeners>
5<listener class-name="org.uncommons.reporting.HTMLReporter" />
6</listeners>
7<test name="Selenium TestNG Test Scripts">
8<classes>
9<class name="seleniumTestNGProject.AddToCart"></class>
10<class name="seleniumTestNGProject.LoginPage"></class>
11<class name="seleniumTestNGProject.PlaceOrder"></class>
12<class name="seleniumTestNGProject.RegistrationPage"></class>
13</classes>
14</test>
15</suite>
```

**Bottom Window (capstoneproject - TestNG/Testing.xml):**

- Project Explorer:** Shows the project structure with files like RegistrationPage.java, LoginPage.java, AddToCart.java, PlaceOrder.java, and TestNG.xml.
- Testing.xml Content:**

```
1<?xml version="1.0" encoding="UTF-8"?>
2<!-- Bind to grammar/schema... -->
3<!-->
4<!-->
5<!-->
6<!-->
7<!-->
8<!-->
9<!-->
10<!-->
11<!-->
12<!-->
13<!-->
14<!-->
15<!-->
```

The desktop taskbar at the bottom shows the date as 25-01-2024 and the time as 07:57 PM.

## **Registration Page:**

capstoneproject - TestNG/src/test/java/seleniumTestNGProject/RegistrationPage.java - Eclipse IDE

```

File Edit Source Refactor Navigate Search Project Run Window Help
Run All
12 public class RegistrationPage {
13
14     String siteUrl = "http://localhost:9010/";
15     String driverPath = "drivers/windows/chromedriver.exe";
16     WebDriver driver;
17
18    @BeforeMethod
19    public void setUp() {
20
21        System.setProperty("webdriver.chrome.driver", driverPath);
22        driver = new ChromeDriver();
23        driver.get(siteUrl);
24    }
25
26    @AfterMethod
27    public void cleanUp() {
28        driver.quit();
29    }
30
31    @Test(description = "Register user")
32    public void registerUser() throws InterruptedException {
33        // adding delay
34        Thread.sleep(2000);
35        WebElement register = driver.findElement(By.xpath("//html/body/div[2]/form/a"));
36        register.click();
37
38        // adding delay
39        Thread.sleep(2000);
40        WebElement name = driver.findElement(By.xpath("//*[@id='name']"));
41        name.sendKeys("Sangeetha");
42
43        WebElement email = driver.findElement(By.xpath("//*[@id='email']"));
44        email.sendKeys("sangeethahemavenkat@gmail.com");
45
46        WebElement password = driver.findElement(By.xpath("//*[@id='password']"));
47        password.sendKeys("Sangeetha104065");
48
49        WebElement button = driver.findElement(By.xpath("//html/body/div[2]/form/button"));
50        button.click();
51
52        // adding delay
53    }
54}

```

localhost:9010/register

28°C Partly cloudy

Search

Writable Smart Insert 6:1:160

ENG IN 08:03 PM 25-01-2024

Sporty Shoes

Powered By Simplilearn

Step Up Your Game with Sporty Shoes: Where Every Click is a Stride Towards Style!

Its Thu Jan 25 20:03:53 IST 2024 !

## Register Yourself

Name:

Email:

Password:

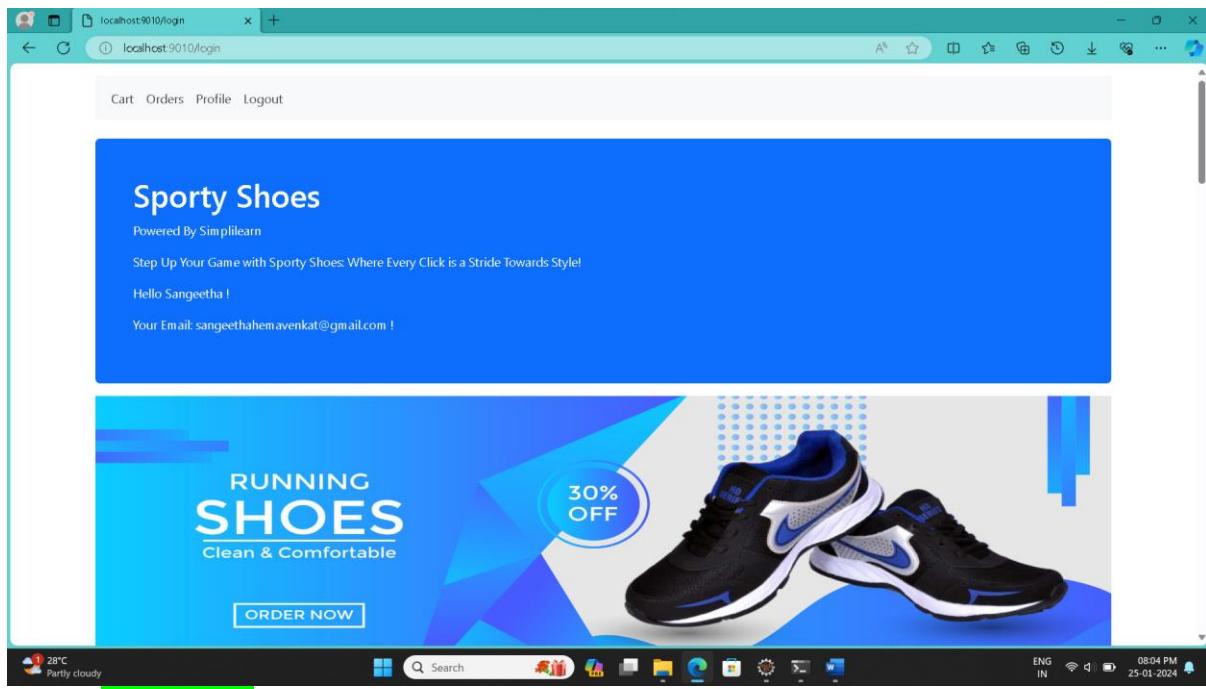
[Register](#)

[Existing User? Login Here](#)

28°C Partly cloudy

Search

ENG IN 08:04 PM 25-01-2024

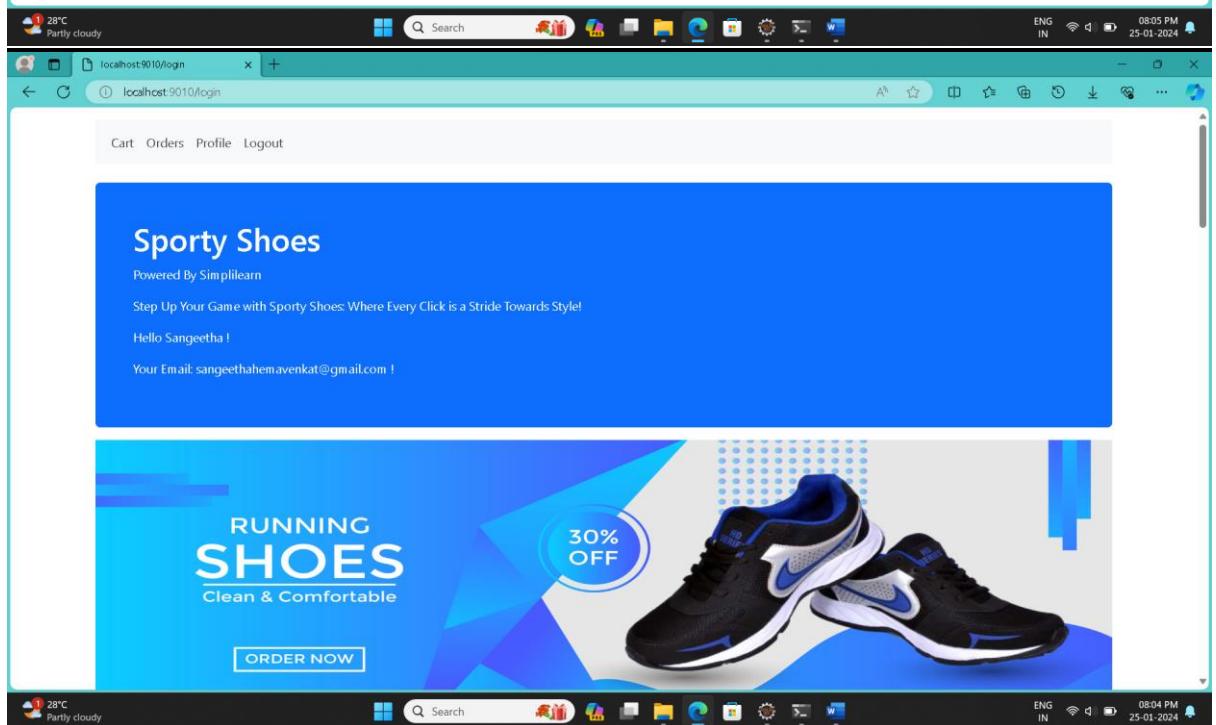
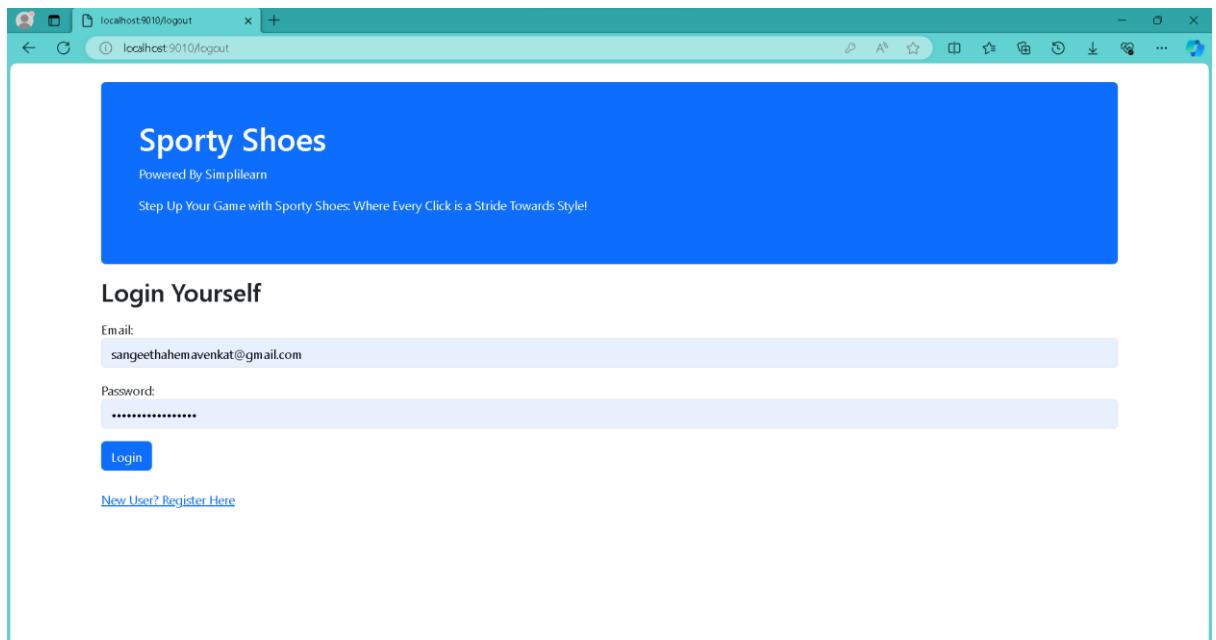


## Login page

```
capstoneproject - TestNG/src/test/java/seleniumTestNGProject/LoginPage.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Project Explorer X RegistrationPage.java LoginPage.java AddToCartJava PlaceOrderJava Testng.xml TestNG/pom.xml
CucumberRunner (in 4 Cucumber.Gherkin)
RestAssured (in iRestAssured)
Servers
TestNG
src/main/java
src/test/java
  seleniumTestNGProject
    AddToCartJava
    LoginPage.java
    PlaceOrderJava
    RegistrationPage.java
JRE System Library [jdk-18.0.1]
Maven Dependencies
drivers
  windows
src
target
test-output
pom.xml
Testng.xml

public class LoginPage {
    @BeforeMethod
    public void setUp() {
        System.setProperty("webdriver.chrome.driver", driverPath);
        driver = new ChromeDriver();
        driver.get(siteUrl);
    }
    @AfterMethod
    public void cleanUp() {
        driver.quit();
    }
    @Test(description = "login user")
    public void loginUser() throws InterruptedException {
        Thread.sleep(2000);
        WebElement email = driver.findElement(By.xpath("//*[@id='email']"));
        email.sendKeys("sangeethahemavenkat@gmail.com");
        Thread.sleep(2000);
        WebElement password = driver.findElement(By.xpath("//*[@id='password']"));
        password.sendKeys("sangeetha104065#");
        WebElement button = driver.findElement(By.xpath("//html/body/div[2]/form/button"));
        button.click();
        // adding delay
        Thread.sleep(2000);
        String expectedTitle = "";
        String actualTitle = driver.getTitle();
        assertEquals(actualTitle, expectedTitle);
    }
}
```

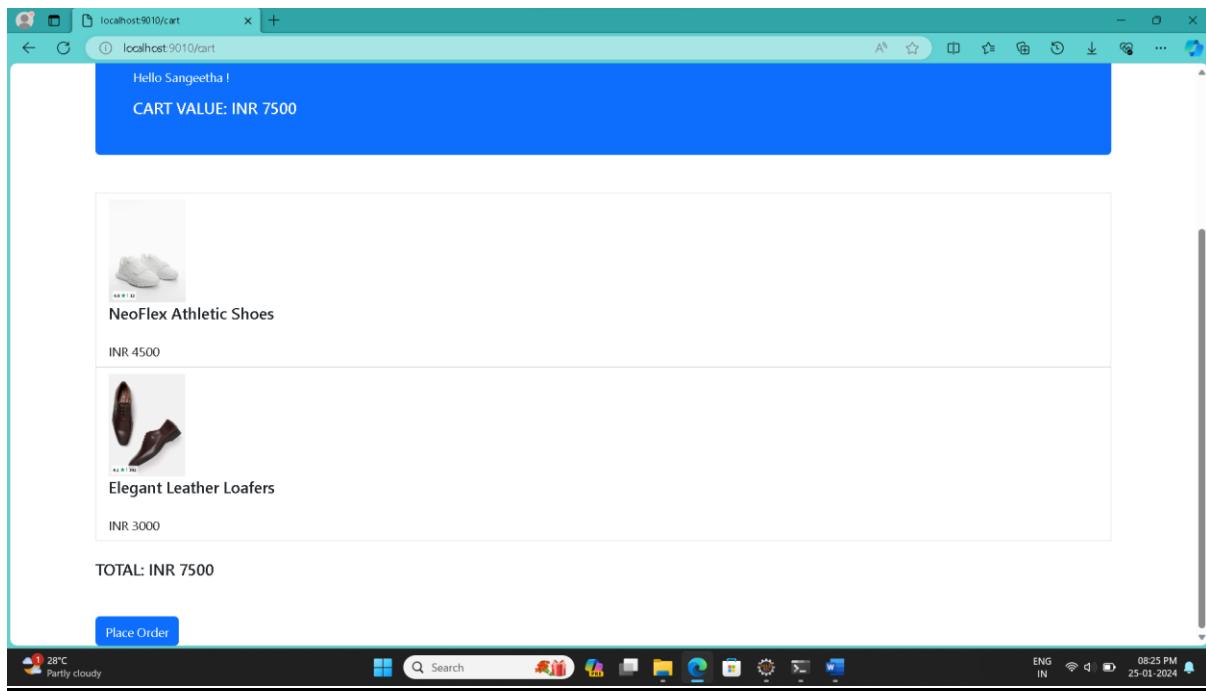




**Add Product to cart page.**

The screenshot shows the Eclipse IDE interface with the following details:

- Project Explorer:** Shows the project structure with files like RegistrationPage.java, LoginPage.java, AddToCart.java, PlaceOrder.java, Testng.xml, and TestNG/pom.xml.
- Code Editor:** Displays a Java code snippet for a Selenium test case. The code uses WebDriver to interact with a web application, specifically adding a product to the cart and verifying the title. It includes imports for selenium, org.openqa.selenium, and org.openqa.selenium.support.ui.
- Task List:** Shows various tasks and errors related to the project.
- OS Taskbar:** Shows system status icons for battery, signal, and volume, along with the date and time (25-01-2024).
- Browser:** A screenshot of a web browser window titled "localhost:9010/cart". The page displays a header with "Sporty Shoes" and "Powered By Simplilearn". Below the header, there's a promotional message "Step Up Your Game with Sporty Shoes: Where Every Click is a Stride Towards Style!". A greeting "Hello Sangeetha!" is shown, followed by a "CART VALUE: INR 7500". A product listing for "NeoFlex Athletic Shoes" is visible, showing an image of white sneakers and the price "INR 4500".



Place Order Page

```

File Edit Source Refactor Navigate Project Run Window Help
Project Explorer
  CucumberGherkins (in 4.Cucumber_Gherkin)
  RestAssured (in 1.RestAssured)
  Servers
  TestNG
    src/main/java
    src/test/java
      seleniumTestNGProject
        AddToCart.java
        LoginPage.java
        PlaceOrder.java
        RegistrationPage.java
  JRE System Library [jdk-18.0.1]
  Maven Dependencies
  drivers
  src
  target
  pom.xml
  TestNG.xml
  
```

```

45      password.sendKeys ("Sangeetha104065#");
46
47      WebElement button = driver.findElement(By.xpath("//html/body/div[2]/form/button"));
48      button.click();
49      //login is completed
50
51      //adding a product to cart = product id = 301
52      Thread.sleep(2000);
53      WebElement shoe1 = driver.findElement(By.xpath("//*[@@id='cart301']"));
54      shoe1.click();
55
56      //going back to home page
57      WebElement home = driver.findElement(By.xpath("//*[@@id='mynavbar']/ul/li[1]/a"));
58      home.click();
59
60      // adding delay
61      Thread.sleep(2000);
62
63      //adding a product to cart = product id = 201
64      Thread.sleep(2000);
65      WebElement shoe2 = driver.findElement(By.xpath("//*[@@id='cart201']"));
66      shoe2.click();
67
68      //going back to home page
69      WebElement home1 = driver.findElement(By.xpath("//*[@@id='mynavbar']/ul/li[1]/a"));
70      home1.click();
71
72      //add to cart completed
73
74      //navigation bar
75      WebElement button1 = driver.findElement(By.xpath("//*[@@id='mynavbar']/ul/li[1]/a"));
76      button1.click();
77
78      // adding delay
79      Thread.sleep(2000);
80      WebElement placeorder = driver.findElement(By.xpath("//*[@@id='place-order']"));
81      placeorder.click();
82
83      String expectedTitle = "";
84      String actualTitle = driver.getTitle();
85
86      assertEquals(actualTitle, expectedTitle);
87  }
  
```

Screenshot of a web browser showing the shopping cart page at [localhost:9010/cart](http://localhost:9010/cart). The page displays a welcome message "Hello Sangeetha!" and a total cart value of "CART VALUE: INR 7500". Below this, two items are listed:

Product Image	Product Name	Price
	NeoFlex Athletic Shoes	INR 4500
	Elegant Leather Loafers	INR 3000

The total cart value is shown as "TOTAL: INR 7500". A blue "Place Order" button is visible at the top left of the page.

Screenshot of a web browser showing the place order confirmation page at [localhost:9010/place-order](http://localhost:9010/place-order). The page features a header with the text "Sporty Shoes" and a sub-header "Powered By Simplilearn". Below this is a promotional message: "Step Up Your Game with Sporty Shoes: Where Every Click is a Stride Towards Style!". A green success message box at the bottom states "Success! Message: Order Placed Successfully with ID: 5".

**Suite Testing:**

A screenshot of the Eclipse IDE interface. The title bar reads "capstoneproject - TestNG/src/test/java/seleniumTestNGProject/PlaceOrder.java - Eclipse IDE". The menu bar includes File, Edit, Source, Refactor, Navigate, Search, Project, Run, Window, Help. The toolbar has various icons for file operations like Open, Save, Cut, Copy, Paste, Find, etc. The left sidebar shows the Project Explorer with "Sporty Shoes Test Suite" selected. The center workspace displays the results of a TestNG run. A red error message at the top says: "[terminated-> TestNG Testng.xml [TestNG] C:\Program Files\Java\jdk-18.0.1\bin\javaw.exe (25-Jan-2024, 7:55:04 pm - 7:56:06 pm) [pid: 15600] [RemoteTestNG] detected TestNG version 7.8.0 SLF4J: Failed to load class "org.slf4j.impl.StaticLoggerBinder". SLF4J: Defaulting to no-operation (NOP) logger implementation SLF4J: See http://www.slf4j.org/codes.html#StaticLoggerBinder for further details." Below this, it says "Sporty Shoes Test Suite Total tests run: 4, Passes: 4, Failures: 0, Skips: 0". The bottom status bar shows system information like battery level (28°C), network (Partly cloudy), and date/time (08:29 PM, 25-01-2024). The taskbar at the bottom also has icons for file operations.

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

## **Screenshots Of Code and Output:**

## **1.Load Testing Of Home Page:**

## Load:

Users: 1 Time 1 : Loop: 1

LoadTesting.jmx (C:\Users\harith\OneDrive\Desktop\Mphasis\CapstoneProject\3.Jmeter\LoadTesting.jmx) - Apache JMeter (5.6.3)

File Edit Search Run Options Tools Help

00:00:01 0/0 1/1

Test Plan

- Thread Group
  - Home\_Page
  - Product\_Detail\_Page
  - View Results Tree**
  - Summary Report
  - View Results in Table

View Results Tree

Name: View Results Tree

Comments: Write results to file / Read from file

Filename:

Search:  Case sensitive  Regular exp.  Search

Text  Request

Sampler result: Thread Name:Thread Group 1-1  
 Thread Start:2024-01-25 05:58:13 IST  
 Level: Info  
 Connect Time:0  
 Latency:5  
 Size in bytes:1447  
 Sent bytes:114  
 Headers size in bytes:194  
 Body size in bytes:1253  
 Sample Count:1  
 Error Count:0  
 Data type ("text"/"bin"):text  
 Response code:200  
 Response message:

HTTPSampleResult fields:  
 ContentType: text/html;charset=UTF-8  
 DataEncoding: UTF-8

Raw Parsed

Scroll automatically?

Summary Report

Name: Summary Report

Comments: Write results to file / Read from file

Filename:

Browse... Log/Display Only:  Errors  Successes  Configure

Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/sec	Sent KB/sec	Avg. Bytes
Home_Page	1	11	11	11	0.00	0.00%	90.9/sec	128.46	10.12	1447.0
Product_Detail...	1	5	5	5	0.00	0.00%	200.0/sec	282.62	22.27	1447.0
TOTAL	2	8	5	11	3.00	0.00%	117.6/sec	166.25	13.10	1447.0

Include group name in label?  Save Table Data  Save Table Header

23°C Mostly clear

Search

ENG IN 05:58 AM 25-01-2024

File Edit Search Run Options Tools Help

00:00:01 0/0 1/1

Test Plan

- Thread Group
  - Home\_Page
  - Product\_Detail\_Page
  - View Results Tree**
  - Summary Report
  - View Results in Table

Summary Report

Name: Summary Report

Comments: Write results to file / Read from file

Filename:

Browse... Log/Display Only:  Errors  Successes  Configure

Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/sec	Sent KB/sec	Avg. Bytes
Home_Page	1	11	11	11	0.00	0.00%	90.9/sec	128.46	10.12	1447.0
Product_Detail...	1	5	5	5	0.00	0.00%	200.0/sec	282.62	22.27	1447.0
TOTAL	2	8	5	11	3.00	0.00%	117.6/sec	166.25	13.10	1447.0

Include group name in label?  Save Table Data  Save Table Header

23°C Mostly clear

Search

ENG IN 06:00 AM 25-01-2024

LoadTesting.jmx (C:\Users\harith\OneDrive\Desktop\Mphasis\CapstoneProject\3.Jmeter\LoadTesting.jmx) - Apache JMeter (5.6.3)

File Edit Search Run Options Tools Help

Test Plan

Thread Group

- Home\_Page
- Product\_Detail\_Page

View Results Tree

Summary Report

View Results in Table

View Results in Table

Name: View Results in Table

Comments:

Write results to file / Read from file

Filename:

Browse... Log/Display Only: Errors Successes Configure

Sample #	Start Time	Thread Name	Label	SampleTime(ms)	Status	Bytes	Sent Bytes	Latency	Connect Time(ms)
1	05:58:12.989	Thread Group 1-1	Home_Page	11	Green	1447	114	10	2
2	05:58:13.001	Thread Group 1-1	Product_Detail_Pa...	5	Green	1447	114	5	0

Scroll automatically? Child samples? No of Samples: 2 Latest Sample: 5 Average: 8 Deviation: 2

23°C Mostly clear

Search ENG IN 06:00 AM 25-01-2024

Load: **Users: 10 Time: 1 : Loop: 2**

LoadTesting.jmx (C:\Users\harith\OneDrive\Desktop\Mphasis\CapstoneProject\3.Jmeter\LoadTesting.jmx) - Apache JMeter (5.6.3)

File Edit Search Run Options Tools Help

Test Plan

Thread Group

- Home\_Page
- Product\_Detail\_Page

View Results Tree

Summary Report

View Results in Table

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 Sampler result Request Response data

Home\_Page Thread Name:Thread Group 1-2  
Sample Start:2024-01-25 06:02:24 IST  
Load time:34  
Connect Time:1  
Latency:33  
Size in bytes:1447  
Sent Bytes:14  
Header size in bytes:194  
Body size in bytes:1253  
Sample Count:1  
Error Count:0  
Data type ("text"\r\n")-text  
Response code:200  
Response message:  
HTTPSampleResult fields:  
Content-Type: text/html; charset=UTF-8  
Content-Encoding: UTF-8

Raw Parsed

Scroll automatically?

23°C Mostly clear

Search ENG IN 06:02 AM 25-01-2024

LoadTesting.jmx (C:\Users\harith\OneDrive\Desktop\Mphasis\CapstoneProject\3.Jmeter\LoadTesting.jmx) - Apache JMeter (5.6.3)

File Edit Search Run Options Tools Help

Test Plan

- Thread Group
  - Home\_Page
  - Product\_Detail\_Page
- View Results Tree
- Summary Report
- View Results in Table**

Summary Report

Name: Summary Report

Comments:

Write results to file / Read from file

Filename:

Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/sec	Sent KB/sec	Avg. Bytes
Home_Page	20	15	2	108	2253	0.00%	22.6/sec	31.97	2.52	1447.0
Product_Detail_P...	20	5	3	13	2.31	0.00%	25.7/sec	36.28	2.86	1447.0
TOTAL	40	10	2	108	1673	0.00%	45.0/sec	63.65	5.01	1447.0

Include group name in label? Save Table Data Save Table Header

23°C Mostly clear

LoadTesting.jmx (C:\Users\harith\OneDrive\Desktop\Mphasis\CapstoneProject\3.Jmeter\LoadTesting.jmx) - Apache JMeter (5.6.3)

File Edit Search Run Options Tools Help

Test Plan

- Thread Group
  - Home\_Page
  - Product\_Detail\_Page
- View Results Tree
- Summary Report
- View Results in Table**

View Results in Table

Name: View Results in Table

Comments:

Write results to file / Read from file

Filename:

Sample #	Start Time	Thread Name	Label	Sample Time(ms)	Status	Bytes	Sent Bytes	Latency	Connect Time(ms)
1	06:02:24.526	Thread Group 1-2	Home_Page	34	OK	1447	114	33	1
2	06:02:24.453	Thread Group 1-1	Home_Page	108	OK	1447	114	107	14
3	06:02:24.592	Thread Group 1-1	Product_Detail_Pa...	4	OK	1447	114	4	0
4	06:02:24.562	Thread Group 1-2	Product_Detail_Pa...	5	OK	1447	114	5	0
5	06:02:24.549	Thread Group 1-1	Home_Page	4	OK	1447	114	4	0
6	06:02:24.588	Thread Group 1-2	Home_Page	8	OK	1447	114	8	0
7	06:02:24.573	Thread Group 1-1	Product_Detail_Pa...	7	OK	1447	114	6	0
8	06:02:24.576	Thread Group 1-2	Product_Detail_Pa...	9	OK	1447	114	7	0
9	06:02:24.636	Thread Group 1-3	Home_Page	11	OK	1447	114	10	2
10	06:02:24.648	Thread Group 1-3	Product_Detail_Pa...	4	OK	1447	114	4	0
11	06:02:24.653	Thread Group 1-3	Home_Page	5	OK	1447	114	4	0
12	06:02:24.658	Thread Group 1-3	Product_Detail_Pa...	6	OK	1447	114	6	0
13	06:02:24.734	Thread Group 1-4	Home_Page	12	OK	1447	114	10	2
14	06:02:24.747	Thread Group 1-4	Product_Detail_Pa...	13	OK	1447	114	12	0
15	06:02:24.761	Thread Group 1-4	Home_Page	5	OK	1447	114	5	0
16	06:02:24.766	Thread Group 1-4	Product_Detail_Pa...	4	OK	1447	114	4	0
17	06:02:24.824	Thread Group 1-5	Home_Page	17	OK	1447	114	16	3
18	06:02:24.843	Thread Group 1-5	Product_Detail_Pa...	4	OK	1447	114	4	0
19	06:02:24.846	Thread Group 1-5	Home_Page	3	OK	1447	114	3	0
20	06:02:24.852	Thread Group 1-5	Product_Detail_Pa...	3	OK	1447	114	3	0
21	06:02:24.926	Thread Group 1-6	Home_Page	13	OK	1447	114	13	3
22	06:02:24.940	Thread Group 1-6	Product_Detail_Pa...	5	OK	1447	114	5	0
23	06:02:24.946	Thread Group 1-6	Home_Page	2	OK	1447	114	2	0
24	06:02:24.949	Thread Group 1-7	Product_Detail_Pa...	9	OK	1447	114	7	0
25	06:02:25.018	Thread Group 1-7	Home_Page	17	OK	1447	114	15	3

Scroll automatically? Child samples? No of Samples: 40 Latest Sample: 3 Average: 10 Standard Deviation: 18

23°C Mostly clear

LoadTesting.jmx (C:\Users\harith\OneDrive\Desktop\Mphasis\CapstoneProject\3.Jmeter\LoadTesting.jmx) - Apache JMeter (5.6.3)

File Edit Search Run Options Tools Help

Test Plan

- Thread Group
  - Home\_Page
  - Product\_Detail\_Page
- View Results Tree
- Summary Report
- View Results in Table

View Results in Table

Name: View Results in Table

Comments:

Write results to file / Read from file

Filename:

Sample #	Start Time	Thread Name	Label	Sample Time(ms)	Status	Bytes	Sent Bytes	Latency	Connect Time(ms)
1	06:02:24.526	Thread Group 1-2	Home_Page	34	OK	1447	114	33	1
2	06:02:24.453	Thread Group 1-1	Home_Page	108	OK	1447	114	107	14
3	06:02:24.592	Thread Group 1-1	Product_Detail_Pa...	4	OK	1447	114	4	0
4	06:02:24.562	Thread Group 1-2	Product_Detail_Pa...	5	OK	1447	114	5	0
5	06:02:24.549	Thread Group 1-1	Home_Page	4	OK	1447	114	4	0
6	06:02:24.588	Thread Group 1-2	Home_Page	8	OK	1447	114	8	0
7	06:02:24.573	Thread Group 1-1	Product_Detail_Pa...	7	OK	1447	114	6	0
8	06:02:24.576	Thread Group 1-2	Product_Detail_Pa...	9	OK	1447	114	7	0
9	06:02:24.636	Thread Group 1-3	Home_Page	11	OK	1447	114	10	2
10	06:02:24.648	Thread Group 1-3	Product_Detail_Pa...	4	OK	1447	114	4	0
11	06:02:24.653	Thread Group 1-3	Home_Page	5	OK	1447	114	4	0
12	06:02:24.658	Thread Group 1-3	Product_Detail_Pa...	6	OK	1447	114	6	0
13	06:02:24.734	Thread Group 1-4	Home_Page	12	OK	1447	114	10	2
14	06:02:24.747	Thread Group 1-4	Product_Detail_Pa...	13	OK	1447	114	12	0
15	06:02:24.761	Thread Group 1-4	Home_Page	5	OK	1447	114	5	0
16	06:02:24.766	Thread Group 1-4	Product_Detail_Pa...	4	OK	1447	114	4	0
17	06:02:24.824	Thread Group 1-5	Home_Page	17	OK	1447	114	16	3
18	06:02:24.843	Thread Group 1-5	Product_Detail_Pa...	4	OK	1447	114	4	0
19	06:02:24.846	Thread Group 1-5	Home_Page	3	OK	1447	114	3	0
20	06:02:24.852	Thread Group 1-5	Product_Detail_Pa...	3	OK	1447	114	3	0
21	06:02:24.926	Thread Group 1-6	Home_Page	13	OK	1447	114	13	3
22	06:02:24.940	Thread Group 1-6	Product_Detail_Pa...	5	OK	1447	114	5	0
23	06:02:24.946	Thread Group 1-6	Home_Page	2	OK	1447	114	2	0
24	06:02:24.949	Thread Group 1-7	Product_Detail_Pa...	9	OK	1447	114	7	0
25	06:02:25.018	Thread Group 1-7	Home_Page	17	OK	1447	114	15	3

Scroll automatically? Child samples? No of Samples: 40 Latest Sample: 3 Average: 10 Standard Deviation: 18

23°C Mostly clear

LoadTesting.jmx (C:\Users\harith\OneDrive\Desktop\Mphasis\CapstoneProject\3.Jmeter\LoadTesting.jmx) - Apache JMeter (5.6.3)

File Edit Search Run Options Tools Help

00:00:01 0/0/10

Test Plan

- Thread Group
  - Home\_Page
  - Product\_Detail\_Page
  - View Results Tree
  - Summary Report
  - View Results in Table

**View Results in Table**

Name: View Results in Table

Comments:

Write results to file / Read from file

Filename:

Browse... Log/Display Only: Errors Successes Configure

Sample #	Start Time	Thread Name	Label	Sample Time(ms)	Status	Bytes	Sent Bytes	Latency	Connect Time(ms)
10	06:02:24.766	Thread group 1-4	product_detail_page	4	✓	1447	114	4	0
17	06:02:24.824	Thread Group 1-5	Home_Page	17	✓	1447	114	16	3
18	06:02:24.843	Thread Group 1-5	Product_Detail_Page	4	✓	1447	114	4	0
19	06:02:24.848	Thread Group 1-5	Home_Page	3	✓	1447	114	3	0
20	06:02:24.852	Thread Group 1-5	Product_Detail_Page	3	✓	1447	114	3	0
21	06:02:24.926	Thread Group 1-6	Home_Page	13	✓	1447	114	13	3
22	06:02:24.940	Thread Group 1-6	Product_Detail_Page	5	✓	1447	114	5	0
23	06:02:24.946	Thread Group 1-6	Home_Page	2	✓	1447	114	2	0
24	06:02:24.949	Thread Group 1-6	Product_Detail_Page	9	✓	1447	114	7	0
25	06:02:25.018	Thread Group 1-7	Home_Page	17	✓	1447	114	15	3
26	06:02:25.038	Thread Group 1-7	Product_Detail_Page	4	✓	1447	114	4	0
27	06:02:25.040	Thread Group 1-7	Home_Page	4	✓	1447	114	4	0
28	06:02:25.045	Thread Group 1-7	Product_Detail_Page	4	✓	1447	114	4	0
29	06:02:25.115	Thread Group 1-8	Home_Page	15	✓	1447	114	13	3
30	06:02:25.131	Thread Group 1-8	Product_Detail_Page	5	✓	1447	114	5	0
31	06:02:25.137	Thread Group 1-8	Home_Page	4	✓	1447	114	4	0
32	06:02:25.141	Thread Group 1-8	Product_Detail_Page	4	✓	1447	114	4	0
33	06:02:25.215	Thread Group 1-9	Home_Page	14	✓	1447	114	12	2
34	06:02:25.231	Thread Group 1-9	Product_Detail_Page	5	✓	1447	114	5	0
35	06:02:25.239	Thread Group 1-9	Home_Page	9	✓	1447	114	7	0
36	06:02:25.245	Thread Group 1-9	Product_Detail_Page	5	✓	1447	114	5	0
37	06:02:25.313	Thread Group 1-10	Home_Page	14	✓	1447	114	13	3
38	06:02:25.328	Thread Group 1-10	Product_Detail_Page	6	✓	1447	114	6	0
39	06:02:25.334	Thread Group 1-10	Home_Page	3	✓	1447	114	3	0
40	06:02:25.338	Thread Group 1-10	Product_Detail_Page	3	✓	1447	114	3	0

Scroll automatically? Child samples? No of Samples: 40 Latest Sample: 3 Average: 10 Deviation: 16

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Load:  
Users: 50 Time: 10 : Loop: 10

LoadTesting.jmx (C:\Users\harith\OneDrive\Desktop\Mphasis\CapstoneProject\3.Jmeter\LoadTesting.jmx) - Apache JMeter (5.6.3)

File Edit Search Run Options Tools Help

00:00:10 0/0/50

Test Plan

- Thread Group
  - Home\_Page
  - Product\_Detail\_Page
  - View Results Tree
  - Summary Report
  - View Results in Table

**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

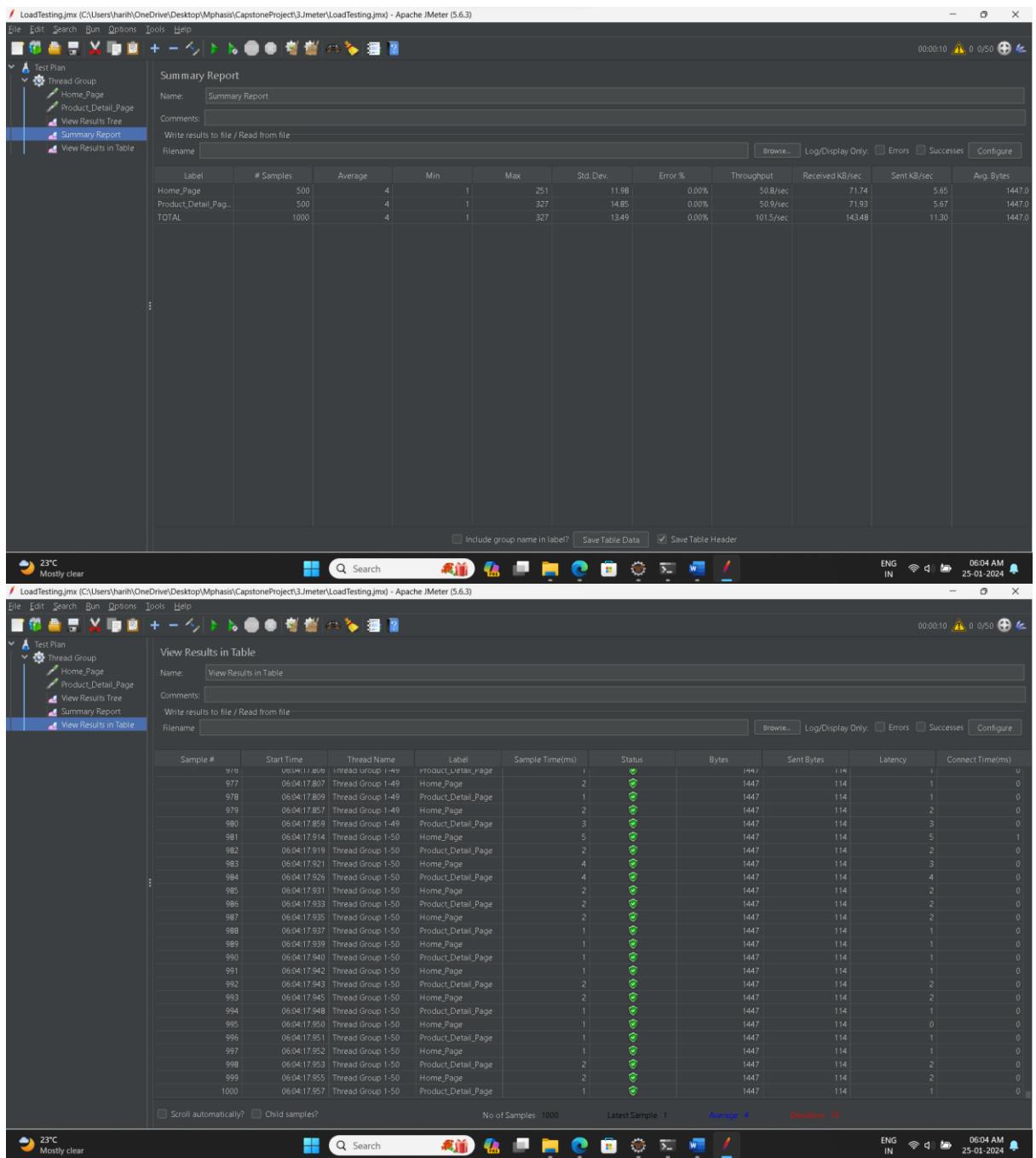
Sampler result: Request: Response data

Thread Name: Thread Group 1-6  
 Sample Start: 2024-01-25 06:04:09 IST  
 Load time: 4  
 Connect time: 0  
 Latency: 4  
 Size in bytes: 1447  
 Sent bytes: 114  
 Headers size in bytes: 194  
 Body size in bytes: 1253  
 Sample Count: 1  
 Error Count: 0  
 Data type: "text/html"; charset=UTF-8  
 Response code: 200  
 Response message:

HTTPSampleResult fields:  
 Content-Type: text/html; charset=UTF-8  
 DataEncoding: UTF-8

Raw Parsed

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- Setup Cucumber in Java Project and write Feature Files using Gherkin to test the API endpoints mentioned in point 1 above.

The screenshot shows the Eclipse IDE interface with two tabs open:

- TestRunner.java**: The code editor tab, showing Java code for a Cucumber test runner. It includes imports for `org.junit.runner.RunWith`, `io.cucumber.junit.Cucumber`, `io.cucumber.junit.CucumberOptions`, and `io.cucumber.junit.Cucumber`. The class `TestRunner` is annotated with `@RunWith(Cucumber.class)` and `@CucumberOptions(features = "src/test/resources/Features", glue = ("stepDefinitions"))`.
- pom.xml**: The Maven configuration tab, showing the Project Object Model (POM) file. The XML content is as follows:

```
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://maven.apache.org/PO</pre>
```

The screenshot shows the Eclipse IDE interface with the title bar "capstoneproject - CucumberGherkins/pom.xml - Eclipse IDE". The Project Explorer view on the left shows a project structure with files like TestRunner.java, CucumberGherkins, and various feature files. The code editor at the bottom contains the pom.xml file, which includes dependencies for io.rest-assured, cucumber-junit, and org.apache.maven.plugins.

```
<!-- io.rest-assured/xml-path -->
<dependency>
    <groupId>io.rest-assured</groupId>
    <artifactId>xml-path</artifactId>
    <version>${rest assured.version}</version>
</dependency>

<!-- cucumber-java -->
<dependency>
    <groupId>io.cucumber</groupId>
    <artifactId>cucumber-java</artifactId>
    <version>${cucumber.version}</version>
</dependency>

<!-- cucumber-junit :: junit4-->
<dependency>
    <groupId>junit</groupId>
    <artifactId>junit</artifactId>
    <version>${junit.version}</version>
    <scope>test</scope>
</dependency>

<!-- junit4 -->
<dependency>
    <groupId>junit</groupId>
    <artifactId>junit</artifactId>
    <version>${junit.version}</version>
    <scope>test</scope>
</dependency>

</dependencies>
<build>
    <plugins>
        <plugin>
            <groupId>org.apache.maven.plugins</groupId>
            <artifactId>maven-surefire-plugin</artifactId>
            <version>3.2.3</version>
        </plugin>
    </plugins>
</build>
</project>
```

The screenshot shows the Eclipse IDE interface with the title bar "capstoneproject - CucumberGherkins/src/test/resources/GetAllProducts.feature - Eclipse IDE". The Project Explorer view on the left shows the same project structure. The code editor at the bottom contains a Gherkin feature file named GetAllProducts.feature, which defines a scenario for getting all products.

```
1 #Author: Sangeetha Venkatesan
2 #Feature: Get all Product
3
4 @tag
5@Feature: Get all Products
6 I want to get all Products in the smarty shoes file
7
8 @tag1
9 Scenario: Get all Products - Get Request
10 Given I want to get a list of all Products
11 And view all Products
12 When I got the list of products
13 Then the request response has a 200 response code
```

capstoneproject - CucumberGherkins/src/test/resources/Features/GetAllRegisteredUsers.feature - Eclipse IDE

```
File Edit Navigate Search Project Run Window Help
Project Explorer X
  GetAllRegisteredUsers.feature X PostProduct.feature DeleteProduct.feature PutProductfeature GetAllProductsStepDefinition.java
  #Author: Sangeetha Venkatesan
  2 #Feature: Get all Registered Users
  3 @tag
  4#Feature: Get all Registered Users
  5 I want to Get all the Registered Users in the smarty shoes file
  6
  7 @tag1
  8# Scenario: Get Users - Get Request
  9 Given I want to get a list of all users
  10 And view users
  11 When I got the list of users
  12 Then the request response has a 200 response code
  13

  CapstoneProject
  CucumberGherkins (in 4.Cucumber_Gherkin)
    src/main/java
    src/main/resources
    src/test/java
      stepDefinitions
        GetAllProductsStepDefinition
      testRunner
        TestRunnerJava
    src/test/resources
      Features
        DeleteProduct.feature
        GetAllProducts.feature
        GetAllRegisteredUsers.feature
        PostProduct.feature
        PutProduct.feature
  JRE System Library [jdk-18.0.1]
  Maven Dependencies
  src
  target
  pom.xml
  RestAssured (in 1.RestAssured)
  Servers
  Testing
```

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capstoneproject - CucumberGherkins/src/test/resources/Features/PostProduct.feature - Eclipse IDE

```
File Edit Navigate Search Project Run Window Help
Project Explorer X
  GetAllRegisteredUsers.feature X PostProduct.feature X DeleteProductfeature PutProductfeature GetAllProductsStepDefinition.java PostProductStepDefinition.java
  #Author: Sangeetha Venkatesan
  2 #Feature: Add a Product
  3 @tag
  4#Feature: Add a Product
  5 I want to Add a Product in the smarty shoes file
  6
  7 @tag1
  8# Scenario: Add Product - Post Request
  9 Given I want to add a new product
  10 And enter the details
  11 When product is added
  12 Then the request response has a 200 response code
  13

  CapstoneProject
  CucumberGherkins (in 4.Cucumber_Gherkin)
    src/main/java
    src/main/resources
    src/test/java
      stepDefinitions
        GetAllProductsStepDefinition
        PostProductStepDefinition.java
      testRunner
        TestRunnerJava
    src/test/resources
      Features
        DeleteProduct.feature
        GetAllProducts.feature
        GetAllRegisteredUsers.feature
        PostProduct.feature
        PutProduct.feature
  JRE System Library [jdk-18.0.1]
  Maven Dependencies
  src
  target
  pom.xml
  RestAssured (in 1.RestAssured)
  Servers
  Testing
```

26°C Mostly cloudy

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**Output:**

The image consists of three vertically stacked screenshots of the Eclipse IDE interface, showing the execution of Cucumber feature files.

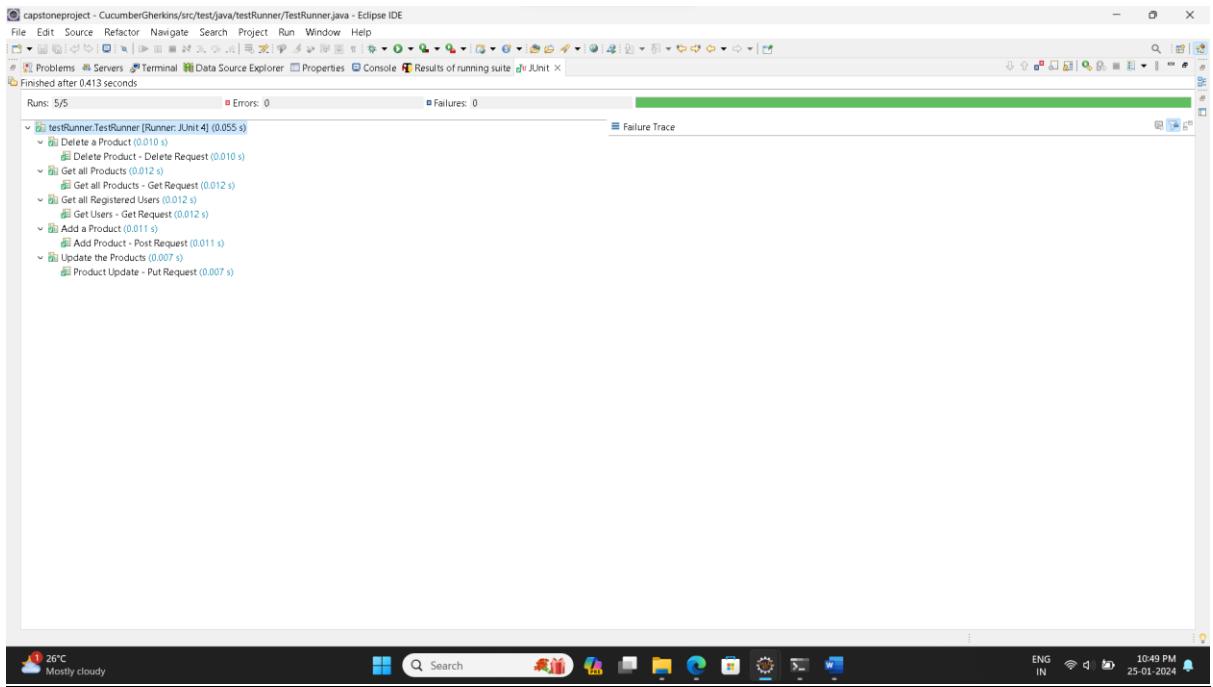
- Screenshot 1 (Top):** Shows the execution of the `DeleteProduct.feature` file. The terminal output shows the following steps:
 

```

1 #Author: Sangeetha Venkatesan
2 #Feature: Delete a Product
3
4 @tag
5#Feature: Delete a Product
6 I want to Delete a Product in the smarty shoes file
7
8 @tag1
9# Scenario: Delete Product - Delete Request
10 Given I want to delete a product
11 And enter the details of the product
12 When product is deleted
13 Then the request response has a 200 response code
      
```
- Screenshot 2 (Middle):** Shows the execution of the `PutProduct.feature` file. The terminal output shows the following steps:
 

```

1 #Author: Sangeetha Venkatesan
2 #Feature: Update the Products
3
4@tag
5#Feature: Update the Products
6 I want to Update the Products in the smarty shoes file
7
8 @tag1
9# Scenario: Product Update - Put Request
10 Given I want to update a product
11 And enter the updates
12 When product is updated
13 Then the request response has a 200 response code
      
```
- Screenshot 3 (Bottom):** Shows the execution of the `PutProduct.feature` file again, with the terminal output identical to the middle screenshot.



## 5. Create Postman scripts to test the following API endpoints:

- Retrieve the list of all products in the store.
- Retrieve the list of all registered users.
- Add the product.
- Delete the product.
- Update the product.

**The following API Endpoints were used:**

Action	Method	Endpoint
Retrieve the list of all products in the store	GET	<a href="http://localhost:9010/get-shoes">http://localhost:9010/get-shoes</a>
Retrieve the list of all registered users	GET	<a href="http://localhost:9010/get-users">http://localhost:9010/get-users</a>
Add the product	POST	<a href="http://localhost:9010/add-shoe?id=101&amp;image=image_url&amp;name=SampleShoe&amp;category=Running&amp;sizes=9&amp;price=1000">http://localhost:9010/add-shoe?id=101&amp;image=image_url&amp;name=SampleShoe&amp;category=Running&amp;sizes=9&amp;price=1000</a>
Delete the product	DELETE	<a href="http://localhost:9010/delete-shoe?id=101">http://localhost:9010/delete-shoe?id=101</a>
Update the product	PUT	<a href="http://localhost:9010/update-shoe">http://localhost:9010/update-shoe</a>

## Screenshots Of Code And Output:

### 1. Get All Users

The screenshot shows the Postman interface with a collection named 'Capstone Project'. Under the 'SportyShoes' collection, there is a 'Get All Users' test script. The URL is set to `http://localhost:9010/get-users`. The 'Tests' tab contains the following JavaScript code:

```
1 pm.test('Status code is 200', function () {
2     pm.response.to.have.status(200);
3 });
4 pm.test('Response time is less than 1500ms', function () {
5     pm.expect(pm.response.responseTime).to.be.below(1500);
6 });
7 pm.test('Response value check with valid data', function () {
8     var jsonData = pm.response.json();
9     pm.expect(jsonData.code).to.eql(101);
10    pm.expect(jsonData.message).to.eql('3 Users Fetched Successfully.');
11 });
12 pm.test('Response value check with dynamic data', function () {
13     var jsonData = pm.response.json();
14     pm.expect(jsonData.users[0]).to.have.property('name');
15     pm.expect(jsonData.users[0]).to.have.property('email');
16     pm.expect(jsonData.users[0]).to.have.property('password');
17 });
18 pm.test('Response value check with dynamic data is not null and not undefined', function () {
19     var jsonData = pm.response.json();
20     pm.expect(jsonData.users[0].name).to.not.be.null;
21     pm.expect(jsonData.users[0].name).to.not.be.undefined;
22     pm.expect(jsonData.users[0].email).to.not.be.null;
23     pm.expect(jsonData.users[0].email).to.not.be.undefined;
24     pm.expect(jsonData.users[0].password).to.not.be.null;
25     pm.expect(jsonData.users[0].password).to.not.be.undefined;
});
```

The 'Body' tab shows the response body as a JSON object with a single key 'users':

```
{ "users": [ { "name": "John Watson", "email": "john@example.com", "password": "john123" }, { "name": "Fionna Flynn", "email": "fionna@example.com", "password": "fionna123" }, { "name": "Sia Sem", "email": "sia@example.com", "password": "sia123" } ] }
```

This screenshot shows the same Postman interface as above, but the 'Body' tab is expanded to show the detailed JSON response. The response body is now fully visible, displaying three user objects with their names, emails, and passwords.

```
{ "code": 101, "message": "3 Users Fetched Successfully.", "users": [ { "name": "John Watson", "email": "john@example.com", "password": "john123" }, { "name": "Fionna Flynn", "email": "fionna@example.com", "password": "fionna123" }, { "name": "Sia Sem", "email": "sia@example.com", "password": "sia123" } ] }
```

Postman interface showing a successful API call to `http://localhost:9010/get-users`. The response status is 200 OK, time is 49 ms, and size is 440 B. Test results show 5/5 passes.

```

pm.test('Status code is 200', function () {
  pm.response.to.have.status(200);
});

pm.test('Response time is less than 1500ms', function () {
  pm.expect(pm.response.responseTime).to.be.below(1500);
});

pm.test('Response value check with valid data', function () {
  var jsonData = pm.response.json();
  pm.expect(jsonData.code).to.eql(101);
  pm.expect(jsonData.message).to.eql("12 Shoes Fetched Successfully.");
});

pm.test('Response value check with dynamic data', function () {
  var jsonData = pm.response.json();
  pm.expect(jsonData.shoes[0]).to.have.property('id');
  pm.expect(jsonData.shoes[0]).to.have.property('image');
  pm.expect(jsonData.shoes[0]).to.have.property('name');
  pm.expect(jsonData.shoes[0]).to.have.property('category');
  pm.expect(jsonData.shoes[0]).to.have.property('sizes');
  pm.expect(jsonData.shoes[0]).to.have.property('price');
});

pm.test('Response value check with dynamic data is not not and not undefined', function () {
  var jsonData = pm.response.json();
  pm.expect(jsonData.shoes[0].id).to.not.be.null;
  pm.expect(jsonData.shoes[0].id).to.not.be.undefined;
  pm.expect(jsonData.shoes[0].image).to.not.be.null;
  pm.expect(jsonData.shoes[0].image).to.not.be.undefined;
  pm.expect(jsonData.shoes[0].name).to.not.be.null;
  pm.expect(jsonData.shoes[0].name).to.not.be.undefined;
  pm.expect(jsonData.shoes[0].category).to.not.be.null;
});

```

## 2. Get All Products

Postman interface showing a successful API call to `http://localhost:9010/get-shoes`. The response status is 200 OK, time is 40 ms, and size is 1.55 KB. Test results show 5/5 passes.

```

pm.test('Status code is 200', function () {
  pm.response.to.have.status(200);
});

pm.test('Response time is less than 1500ms', function () {
  pm.expect(pm.response.responseTime).to.be.below(1500);
});

pm.test('Response value check with valid data', function () {
  var jsonData = pm.response.json();
  pm.expect(jsonData.code).to.eql(101);
  pm.expect(jsonData.message).to.eql("12 Shoes Fetched Successfully.");
});

pm.test('Response value check with dynamic data', function () {
  var jsonData = pm.response.json();
  pm.expect(jsonData.shoes[0]).to.have.property('id');
  pm.expect(jsonData.shoes[0]).to.have.property('image');
  pm.expect(jsonData.shoes[0]).to.have.property('name');
  pm.expect(jsonData.shoes[0]).to.have.property('category');
  pm.expect(jsonData.shoes[0]).to.have.property('sizes');
  pm.expect(jsonData.shoes[0]).to.have.property('price');
});

pm.test('Response value check with dynamic data is not not and not undefined', function () {
  var jsonData = pm.response.json();
  pm.expect(jsonData.shoes[0].id).to.not.be.null;
  pm.expect(jsonData.shoes[0].id).to.not.be.undefined;
  pm.expect(jsonData.shoes[0].image).to.not.be.null;
  pm.expect(jsonData.shoes[0].image).to.not.be.undefined;
  pm.expect(jsonData.shoes[0].name).to.not.be.null;
  pm.expect(jsonData.shoes[0].name).to.not.be.undefined;
  pm.expect(jsonData.shoes[0].category).to.not.be.null;
});

```

Postman API Network - Home Workspaces API Network

**Capstone Project**

- Collections
  - + New Import
  - SpartyShoes
    - GET Get\_All\_Users
    - GET Get\_All\_Products
    - PUT Update\_Product
    - POST Add\_Product
    - DELETE Delete\_Product

Search Postman

Invites Upgrade Save Send Cookies

SpartyShoes / Get\_All\_Products

GET http://localhost:9010/get-shoes

Params Authorization Headers (7) Body Pre-request Script Tests \* Settings Cookies

```

7 pm.test('Response value check with valid data', function () {
8   var jsonData = pm.response.json();
9   pm.expect(jsonData.code).to.eql(101);
10  pm.expect(jsonData.message).to.eql('12 Shoes Fetched Successfully.');
11 }
12 pm.test('Response value check with dynamic data', function () {
13   var jsonData = pm.response.json();
14   pm.expect(jsonData.shoes[0]).to.have.property('id');
15   pm.expect(jsonData.shoes[0]).to.have.property('image');
16   pm.expect(jsonData.shoes[0]).to.have.property('name');
17   pm.expect(jsonData.shoes[0]).to.have.property('category');
18   pm.expect(jsonData.shoes[0]).to.have.property('sizes');
19   pm.expect(jsonData.shoes[0]).to.have.property('price');
20 });
21 pm.test('Response value check with dynamic data is not null and not undefined', function () {
22   var jsonData = pm.response.json();
23   pm.expect(jsonData.shoes[0].id).to.not.be.null;
24   pm.expect(jsonData.shoes[0].id).to.not.be.undefined;
25   pm.expect(jsonData.shoes[0].image).to.not.be.null;
26   pm.expect(jsonData.shoes[0].image).to.not.be.undefined;
27   pm.expect(jsonData.shoes[0].name).to.not.be.null;
28   pm.expect(jsonData.shoes[0].name).to.not.be.undefined;
29   pm.expect(jsonData.shoes[0].category).to.not.be.null;
30   pm.expect(jsonData.shoes[0].category).to.not.be.undefined;
31   pm.expect(jsonData.shoes[0].sizes).to.not.be.null;
32   pm.expect(jsonData.shoes[0].sizes).to.not.be.undefined;
33   pm.expect(jsonData.shoes[0].price).to.not.be.null;
34   pm.expect(jsonData.shoes[0].price).to.not.be.undefined;
35 });

```

Body Cookies (1) Headers (5) Test Results (5/5)

Status: 200 OK Time: 40 ms Size: 1.55 kB Save as example

Online Find and replace Console

23°C Partly sunny Search Start Proxy Cookies Trash

ENG IN 09:05 AM 25-01-2024

Postman API Network - Home Workspaces API Network

**Capstone Project**

- Collections
  - + New Import
  - SpartyShoes
    - GET Get\_All\_Users
    - GET Get\_All\_Products
    - PUT Update\_Product
    - POST Add\_Product
    - DELETE Delete\_Product

Search Postman

Invites Upgrade Save Send Cookies

SpartyShoes / Get\_All\_Products

GET http://localhost:9010/get-shoes

Params Authorization Headers (7) Body Pre-request Script Tests \* Settings Cookies

```

7 pm.test('Response value check with valid data', function () {
8   var jsonData = pm.response.json();
9   pm.expect(jsonData.code).to.eql(101);

```

Body Cookies (1) Headers (5) Test Results (5/5)

Pretty Raw Preview Visualize JSON

```

1 {
2   "code": 101,
3   "message": "12 Shoes Fetched Successfully.",
4   "shoes": [
5     {
6       "id": 101,
7       "image": "1.png",
8       "name": "Bluewave Running Shoes",
9       "category": "Sports",
10      "sizes": "7, 8, 9",
11      "price": 2000
12    },
13    {
14      "id": 201,
15      "image": "2.png",
16      "name": "Elegant Leather Loafers",
17      "category": "Formal",
18      "sizes": "7, 8, 9",
19      "price": 3000
20    },
21    {
22      "id": 301,
23      "image": "3.png",

```

Status: 200 OK Time: 40 ms Size: 1.55 kB Save as example

Online Find and replace Console

23°C Partly sunny Search Start Proxy Cookies Trash

ENG IN 09:05 AM 25-01-2024

Postman API Network interface showing a successful GET request to http://localhost:9010/get-shoes. The response status is 200 OK.

```

pm.test('Response value check with valid data', function () {
  var jsonData = pm.response.json();
  pm.expect(jsonData.code).to.eql(101);
});

```

Postman API Network interface showing a failed PUT request to http://localhost:9010/update-shoe. The status is 400 Bad Request.

```

pm.test('Status code is 400', function () {
  pm.response.to.have.status(400);
});

pm.test('Response time is less than 1500ms', function () {
  pm.expect(pm.response.responseTime).to.be.below(1500);
});

pm.test('Response value check with dynamic data', function () {
  var jsonData = pm.response.json();
  pm.expect(jsonData).to.have.property('timestamp');
  pm.expect(jsonData).to.have.property('status');
  pm.expect(jsonData).to.have.property('error');
  pm.expect(jsonData).to.have.property('path');
});

```

The screenshot shows the Postman application interface. On the left, the sidebar displays the 'Capstone Project' collection, which contains environments, history, and collections. The main workspace shows a request for 'SportyShoes / Update\_Product'. The 'Tests' tab is selected, containing the following code:

```
pm.response.to.have.status(400);
```

The 'Test Results' section shows three green 'PASS' status indicators:

- PASS Status code is 400
- PASS Response time is less than 1500ms
- PASS Response value check with dynamic data

At the bottom right, the status bar indicates: Status: 400 Bad Request, Time: 972 ms, Size: 246 B. There are also buttons for 'Save as example' and more options.

## 4.Add Product

POST http://localhost:3010/add-shoe?id=101&image=image\_url&name=SampleShoe&category=Running&sizes=8&price=1000

```
1 pm.test('Status code is 200', function () {  
2     pm.response.to.have.status(200);  
3 } );  
4  
5 pm.test('Response time is less than 1500ms', function () {  
6     pm.expect(pm.response.responseTime).to.be.below(1500);  
7 } );  
8  
9 pm.test('Response value check with valid data', function () {  
10    var jsonData = pm.response.json();  
11    pm.expect(jsonData.code).to.eq(101);  
12    pm.expect(jsonData.message).to.eql('SampleShoe Added Successfully.');//  
13 } );  
14  
15 pm.test('Response value check with dynamic data', function () {  
16    var jsonData = pm.response.json();  
17    pm.expect(jsonData.shoe).to.have.property('id');  
18    pm.expect(jsonData.shoe).to.have.property('image');  
19    pm.expect(jsonData.shoe).to.have.property('name');  
20    pm.expect(jsonData.shoe).to.have.property('category');  
21    pm.expect(jsonData.shoe).to.have.property('sizes');  
22    pm.expect(jsonData.shoe).to.have.property('price');  
23 } );  
24  
25 pm.test('Response value check with dynamic data is not null and not undefined', function () {  
26    var jsonData = pm.response.json();  
27    pm.expect(jsonData.shoe.id).to.not.be.null;  
28    pm.expect(jsonData.shoe.id).to.not.be.undefined;  
29    pm.expect(jsonData.shoe.image).to.not.be.null;  
30 } );
```

Postman API Network interface showing a POST request to http://localhost:9010/add-shoe?id=101&image=image\_url&name=SampleShoe&category=Running&sizes=9&price=1000. The Tests tab contains a script to validate the response.

```

11 pm.expect(jsonData.code).to.eql(101);
12 pm.expect(jsonData.message).to.eql('SampleShoe Added Successfully.');
13 });
14
15 pm.test('Response value check with dynamic data', function () {
16   var jsonData = pm.response.json();
17   pm.expect(jsonData.shoe).to.have.property('id');
18   pm.expect(jsonData.shoe).to.have.property('image');
19   pm.expect(jsonData.shoe).to.have.property('name');
20   pm.expect(jsonData.shoe).to.have.property('category');
21   pm.expect(jsonData.shoe).to.have.property('sizes');
22   pm.expect(jsonData.shoe).to.have.property('price');
23 });
24
25 pm.test('Response value check with dynamic data is not and not undefined', function () {
26   var jsonData = pm.response.json();
27   pm.expect(jsonData.shoe.id).to.not.be.null;
28   pm.expect(jsonData.shoe.id).to.not.be.undefined;
29   pm.expect(jsonData.shoe.image).to.not.be.null;
30   pm.expect(jsonData.shoe.image).to.not.be.undefined;
31   pm.expect(jsonData.shoe.name).to.not.be.null;
32   pm.expect(jsonData.shoe.name).to.not.be.undefined;
33   pm.expect(jsonData.shoe.category).to.not.be.null;
34   pm.expect(jsonData.shoe.category).to.not.be.undefined;
35   pm.expect(jsonData.shoe.sizes).to.not.be.null;
36   pm.expect(jsonData.shoe.sizes).to.not.be.undefined;
37   pm.expect(jsonData.shoe.price).to.not.be.null;
38   pm.expect(jsonData.shoe.price).to.not.be.undefined;
39 });

```

The Body tab shows the JSON response:

```

1 {
2   "code": 101,
3   "message": "SampleShoe Added Successfully",
4   "shoe": {
5     "id": 101,
6     "image": "image_url",
7     "name": "SampleShoe",
8     "category": "Running",
9     "sizes": "9",
10    "price": 1000
11  }
12

```

The screenshot shows the Postman application interface. In the left sidebar, there's a project named "Capstone Project" containing a collection called "SportyShoes". Under "SportyShoes", there are several requests: "GET All\_Users", "GET Get\_All\_Products", "POST Add\_Product" (which is selected), "PUT Update\_Product", and "DELETE Delete\_Product". The "POST Add\_Product" request is currently being viewed. The URL is set to `http://localhost:9010/add-shoe?id=101&image=image_url&name=SampleShoe&category=Running&sizes=8&price=1000`. The "Tests" tab contains the following code:

```
pm.expect(jsonData.code).to.eql(101);
pm.expect(jsonData.message).to.eql('SampleShoe Added Successfully.');
```

The "Test Results" section shows five green "PASS" status indicators, each corresponding to one of the assertions in the test script. The status bar at the bottom indicates "Status: 200 OK Time: 546 ms Size: 323 B".

This screenshot shows the same Postman interface as the previous one, but with a different request. The "DELETE Delete\_Product" request is selected. The URL is set to `http://localhost:9010/delete-shoe?id=101`. The "Tests" tab contains the following code:

```
pm.test('Status code is 200', function () {
  pm.response.to.have.status(200);
})
pm.test('Response time is less than 1500ms', function () {
  pm.expect(pm.response.responseTime).to.be.below(1500);
})
pm.test('Response value check with valid data', function () {
  var jsonData = pm.response.json();
  pm.expect(jsonData.code).to.eql(101);
  pm.expect(jsonData.message).to.eql('Shoe with ID 101 Deleted Successfully.');
})
```

The "Test Results" section shows three green "PASS" status indicators. The status bar at the bottom indicates "Status: 200 OK Time: 12 ms Size: 227 B".

The screenshot shows the Postman interface with a collection named "Capstone Project". A specific test step for "SportyShoes / Delete\_Product" is selected. The request URL is `http://localhost:9010/delete-shoe?id=101`. The "Tests" tab contains the following JavaScript code:

```

1 pm.test('Status code is 200', function () {
2   pm.response.to.have.status(200);
3 }
4
5 pm.test('Response time is less than 2000ms', function () {
6   pm.expect(pm.response.responseTime).to.be.below(2000);
7 }
8
9 pm.test('Response value check with valid data', function () {
10  var jsonData = pm.response.json();
11  pm.expect(jsonData.code).to.eql(101);
12  pm.expect(jsonData.message).to.eql('Shoe with ID 101 Deleted Successfully.');
13 }
14

```

The "Test Results" section shows three green "PASS" status indicators.

## Running test as a Collection:

The screenshot shows the Postman interface after running the "SportyShoes" collection. The "Run results" section indicates 10 iterations completed in 7s 965ms, with 210 total tests and an average response time of 51ms. The "All Tests" summary shows 200 passed, 10 failed, and 0 skipped. The "View Summary" link is visible.

Individual test results are listed:

- Iteration 1:**
  - GET Get\_All\_Users**: Status code is 200, Response time is less than 1500ms, Response value check with valid data, Response value check with dynamic data, Response value check with dynamic data is not not and not undefined.
  - GET Get\_All\_Products**: Status code is 200, Response time is less than 1500ms, Response value check with valid data | Assertion Error: expected '14 Shoes Fetched Successfully' to deeply equal '12 Shoes Fetched Successfully'.
  - PUT Update\_Product**: Status code is 200, Response time is less than 1500ms, Response value check with dynamic data, Response value check with dynamic data is not not and not undefined.
- Iteration 2:**
  - GET Get\_All\_Users**: Status code is 200, Response time is less than 1500ms, Response value check with valid data, Response value check with dynamic data, Response value check with dynamic data is not not and not undefined.
  - GET Get\_All\_Products**: Status code is 200, Response time is less than 1500ms, Response value check with valid data | Assertion Error: expected '14 Shoes Fetched Successfully' to deeply equal '12 Shoes Fetched Successfully'.
  - PUT Update\_Product**: Status code is 200, Response time is less than 1500ms, Response value check with dynamic data, Response value check with dynamic data is not not and not undefined.

Home Workspaces API Network

Capstone Project New Import

SportyShoes - Run results

Ran today at 09:15:52 · View all runs

Source	Environment	Iterations	Duration	All tests	Avg. Resp. Time
Runner	none	10	7s 965ms	210	51 ms

All Tests Passed (200) Failed (10) Skipped (0)

**POST Add\_Product**  
http://localhost:8010/add-shoe?id=101&image=image\_url&name=SampleShoe&category=Running&sizes=B&price=1000  
200 OK 48 ms 323 B

- PASS Status code is 200
- PASS Response time is less than 1500ms
- PASS Response value check with valid data
- PASS Response value check with dynamic data
- PASS Response value check with dynamic data is not not and not undefined

**DELETE Delete\_Product**  
http://localhost:8010/delete-shoe?id=101  
200 OK 18 ms 227 B

- PASS Status code is 200
- PASS Response time is less than 2000ms
- PASS Response value check with valid data

Iteration 2

**GET Get\_All\_Users**  
http://localhost:8010/get-users

25°C High winds soon

Search Postman

Invite Upgrade No Environment

Run Again Automate Run New Run Export Results

View Summary

Postbot Runner Start Proxy Cookies Trash

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Invite Upgrade No Environment

Run Again Automate Run New Run Export Results

View Results

Postbot Runner Start Proxy Cookies Trash

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Online Find and replace Console