

TEA BOX

Project Report

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TO



SOFTWARE TESTING

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Calicut

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ABSTRACT

The purpose of the project is to test an E-commerce site TEA BOX (for purchasing Tea Powders). The Tea Box website is designed as a comprehensive platform dedicated to tea enthusiasts and casual drinkers alike. This website aims to offer an engaging, user-friendly experience for discovering, exploring, and purchasing a wide variety of teas from around the world. Whether users are searching for classic blends, exotic flavors, or wellness-oriented herbal infusions, the Tea Box provides detailed descriptions, brewing guides, and personalized recommendations.

Site is been tested both manual and automation. Test the functionality of the software, it involves verifying that the website is free of bugs. Manual includes Test Case for each division and it is done in MS Excel. Automation testing done using selenium tool (Maven POM Model). Automation includes Assertions, implicit wait and sleep, scroll down, Actions, Alert handle etc. and also done cross browser tests and generate reports.

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1.INTRODUCTION

Software testing plays a vital role in the IT industry, and its significance cannot be overstated. Every software is developed to support the business so if any bugs are introduced in the software, will make losses in business. And also testing improves the quality of the software.

Here we are testing the website Teabox. The Tea Box website is a modern platform designed to celebrate the rich tradition and diversity of tea. It serves as a one-stop destination for tea enthusiasts, offering a curated collection of teas from around the world, ranging from timeless classics to unique, handcrafted blends. With an intuitive interface and seamless navigation, the website makes it easy for users to explore, learn, and shop for their favorite teas.

Employing both manual test cases and automated testing using Selenium in Java. This systematic approach aims to identify defects and evaluate the system's overall quality.

2.TEST ENVIRONMENT

- Windows Version: Windows 11
- Manual testing: Excel 2019
- IDE: Eclipse Committers 4.32.0
- Testing Framework : Selenium 4.24.0
- Testing Tool : TestNG 7.10.2
- Reporting Tool: Extent Reports 5.0.9
- Testing Tool: Selenium 4.18.2
- Language : Java
- Project Type : Maven
- Project Framework: Data-Driven using POM pattern

3.MANUAL TESTING

Verifying the functionality of an application against the requirement specification is called software testing

Manual testing is a software testing process where a human tester manually executes test cases, interacts with the application, and evaluates its functionality, usability, and performance without using automated tools.

3.1 TYPES OF MANUAL TESTING

Functionality Testing

Functionality testing, also known as functional testing, is a software testing process that evaluates a system's or application's functionality to ensure it works as expected. It focuses on verifying that the software meets its functional requirements, user expectations, and business objectives.

Integration Testing

Testing the data flow or interface between 2 modules is called integration testing.

Positive & Negative Testing

In software testing, positive and negative tests are two types of testing approaches used to validate an application's behavior.

Positive Testing

Positive testing, also known as "happy path" testing, focuses on verifying that an application behaves correctly when given valid and expected inputs.

Negative Testing

Negative testing, also known as "error path" testing, focuses on verifying how an application handles invalid, unexpected, or erroneous inputs.

3.2 TEST SCENARIO and TEST CASE

 TEA BOX

3.3-BUG REPORT

 TEA BOX BUGREPORT

4. AUTOMATION

4.1. WHAT IS AUTOMATION TESTING?

Automation testing is a software testing technique that uses automated tools and scripts to execute test cases, validating a software application's functionality, performance, and security.

4.2. WHY AUTOMATION TESTING?

Test Automation is one of the best methods to boost up the efficiency, covers a wide range of test cases in a short duration of time, and also increases the execution speed while testing the softwares. It is a time consuming and economical technique.

4.3 WHAT IS SELENIUM?

Selenium is a tool to automate web page / application tests across different platforms (Windows, Mac, Linux) using different programming languages (Java, Python, PHP etc.).

Selenium is an opensource tool which is used for automating the tests carried out on web browsers

4.4. TYPES OF AUTOMATION TESTING

Unit Testing:

Unit testing is a software testing technique that tests each unit of source code, it is done by developers, during the coding phase.

Smoke Testing:

It determines that the software deployed is ready to use or not. It is like a confirmation sent to the QA department to continue with the upcoming stages in software testing.

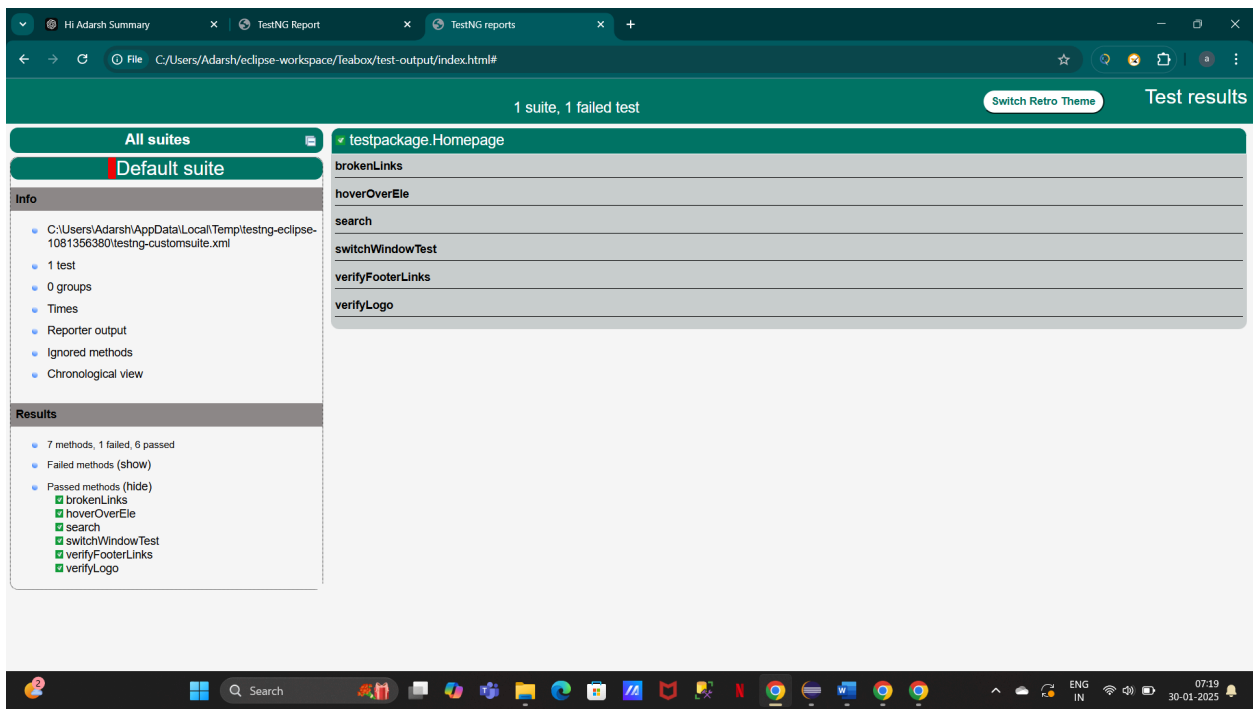
System Testing

System testing is a level of software testing that evaluates the complete, integrated software system to ensure it meets the specified requirements.

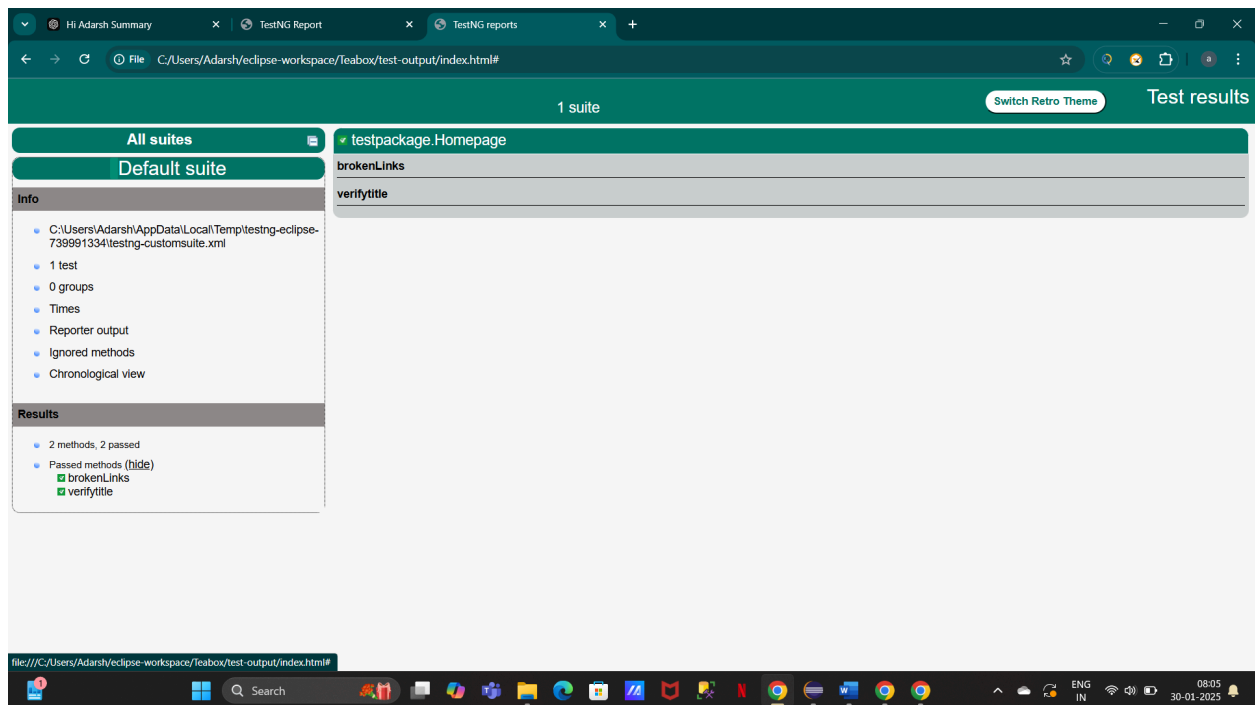
5. REPORTS

5.1- Index report

Test cases



Broken links and Title verification



5. 2- Emailable report

Test	# Passed	# Skipped	# Retried	# Failed	Time (ms)	Included Groups	Excluded Groups
Default suite							
Default test	6	0	0	1	361,238		

Class	Method	Start	Time (ms)
Default suite			
Default test — failed			
testpackage.Homepage	takeScreenshot	1738201513850	665
Default test — passed			
testpackage.Homepage	linkEndLink	1738201367469	146354
	verifyUrl	1738201515020	246
	search	1738201362106	5355
	clickWindowTest	1738201513832	15
	verifyTextLink	1738201515276	120037
	verifyLogo	1738201361990	93

Default test

testpackage.Homepage#takeScreenshot

```
Exception
java.io.FileNotFoundException: C:\selenium\TeaboxScreenshot (Access is denied)
    at java.base/java.io.FileOutputStream.open0(Native Method)
    at java.base/java.io.FileOutputStream.open(FileOutputStream.java:293)
    at java.base/java.io.FileOutputStream.<init>(FileOutputStream.java:235)
    at java.base/java.io.FileOutputStream.<init>(FileOutputStream.java:184)
    at org.openqa.selenium.io.FileHandler.copyFile(FileHandler.java:131)
    at org.openqa.selenium.io.FileHandler.copy(FileHandler.java:110)
    at pagepackage.TeaBox.captureScreenshot(TeaBox.java:319)
    at testpackage.Homepage.takeScreenshot(Hompage.java:88)
    at java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
    at java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:77)
    at java.base/jdk.internal.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
```

Broken links and Title verification

Hi Adarsh Summary

TestNG Report

TestNG reports

C:/Users/Adarsh/eclipse-workspace/teabox/test-output/emailable-report.html

Test	# Passed	# Skipped	# Retried	# Failed	Time (ms)	Included Groups	Excluded Groups
Default suite							
Default test	2	0	0	0	246,953		

Class	Method	Start	Time (ms)
Default suite			
Default test — passed			
testpackage.Hompage	brokenLinks	1738204321130	133685
	verifyTitle	1738204454849	24

Default test

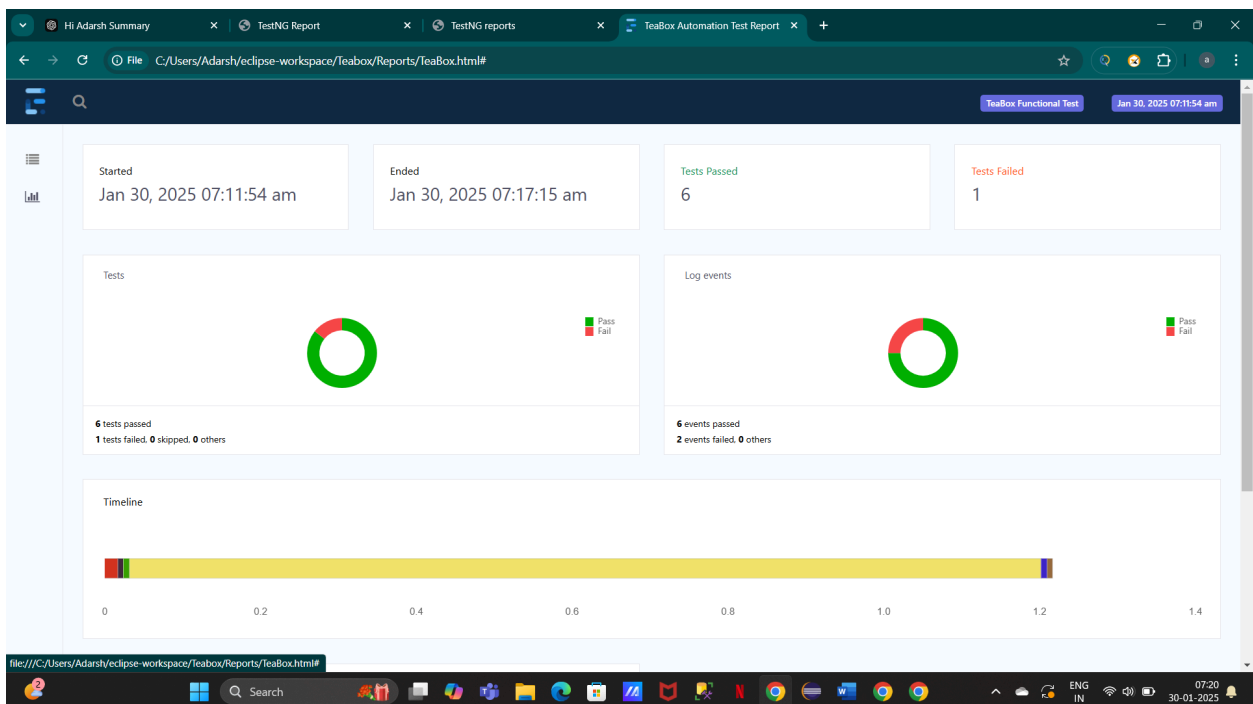
testpackage.Hompage#brokenLinks

[back to summary](#)

testpackage.Hompage#verifyTitle

[back to summary](#)

5.3- Extent Report



7.CONCLUSION

Automation testing is more efficient and reliable than manual testing: Automation testing allows for faster and more accurate testing of the TeaBox site. Automated test scripts can cover a wide range of scenarios, executing quickly and accurately, thereby reducing testing time and effort.

Despite automation testing's advantages, manual testing remains essential for validating complex scenarios, such as user interface and exploratory testing. Human perspective and intuition are invaluable in these cases, complementing automation testing.

TeaBox Performance:

Both manual and automation testing confirm the TEABOX site's good functionality and usability. The site exhibits excellent responsiveness, navigation, and overall user experience. Minor issues, like broken links, were identified but did not significantly impact functionality. The TEABOX site demonstrates strong performance in both manual and automation testing, with minor issues identified. By leveraging both testing methods, TEABOX

can continue to refine its website, prioritizing user experience and sustainability.

Future Enhancements

Improving user interaction, adding products, and diversifying purchasing methods can further enhance the site.

8.REFERENCES

1. <https://edukera.com/>
2. <https://www.geeksforgeeks.org/software-testing-tutorial/>
3. <https://www.javatpoint.com/>