AMARON

Project Report

Submitted by:

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TO

SOFTWARE TESTING

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Calicut

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ABSTRACT

The purpose of this project is to test the **AMARON** website, a leading batteries and related products. The website's focus on delivering high-quality products and seamless user experiences necessitates thorough testing.

This project aims to identify and report bugs, ensuring the website's functionality and performance meet expected standards. A hybrid testing approach is employed, combining manual and automation testing methods. Manual testing, documented in **MS Word, MS Excel** and Automation is done in **Java Eclipse Committers IDE** using **Maven (POM) model**.

Manual testing is conducted across key application areas, including User Registration, Login, Product Purchase, Order Management and defect tracking through detailed bug reports.

Automation includes Assertions, implicit and explicit wait, sleep, scroll down, Actions etc.

By leveraging both manual and automation testing, this project ensures the Amaron website provides an exceptional user experience, bolstering customer satisfaction and loyalty.

CONTENT

1.INTRODUCTION

To ensure the Amaron website's reliability and effectiveness, we are performing manual and automation testing focusing on functionality, performance, and user experience. This comprehensive testing approach enables us to systematically identify defects, evaluate the system, and ensure it meets the required standards.

Software testing has gained significant importance in information technology due to its numerous benefits. Testing reduces overall development costs by detecting defects early, preventing costly rework and debugging. Ignoring testing initially may lead to expensive corrections later, as defects become increasingly difficult to trace and rectify. Moreover, testing ensures reliability, security, and user satisfaction.

The objective of this project is to conduct thorough testing of the Amaron website, ensuring it provides a seamless user experience and maintains customer satisfaction. Through manual and automation testing, we aim to identify and report defects, evaluate functionality and performance, and provide recommendations for enhancement. By doing so, we guarantee the Amaron website meets the required standards, supporting business growth and customer loyalty.

2.TEST ENVIRONMENT

- System : ASUS
- Operating System : Windows 11
- Manual Testing Tools : MS Word 2019
  MS 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
- Language : Java
- Project Type : Maven
- Project Framework : Data-Driven using POM pattern

SOFTWARE TESTING

Software Testing is the systematic evaluation of a software to ensure it meets requirements, functions correctly, and performs well.

3.MANUAL TESTING

Manual Testing is a non-automated testing method where testers execute test cases to identify software bugs, issues, and defects. It is essential for ensuring software quality, usability, and user experience, uncovering issues automation may miss.

Tests which are done:

1. **System Testing:** The third level of software testing ensures the complete system meets user needs.

2. **User Acceptance Testing:** The final level of software testing for quality and usability in real-world scenarios.

3. **Usability Testing:** Evaluating software's user experience, ease of use, and interface to improve user satisfaction.

3.1 TEST SCENARIO

Test Scenario of Amaron

3.2 TESTCASE

Test Case of Amaron

3.3-BUG REPORT

Bug Report of Amaron

4. AUTOMATION TESTING

Automation Testing is a software testing technique that uses tools, scripts, and software to execute test cases automatically, replacing manual effort. It boosts speed, accuracy, coverage, and reliability in software development, offering benefits like faster time-to-market and reduced costs. However, automation testing requires substantial investment to implement data input, result comparison, and report generation capabilities.

Tests which are done:

1. Cross Browser Testing: Ensures compatibility across browsers.

2. Data-Driven Testing: A testing approach that uses external data sources to execute tests with multiple data sets, increasing coverage and efficiency.

3. Positive Testing: Verifies software works correctly with valid inputs and expected behaviour.

4. Negative Testing: Confirms software handles invalid inputs.

5. Exploratory Testing: Testing without a plan to find unexpected issues.

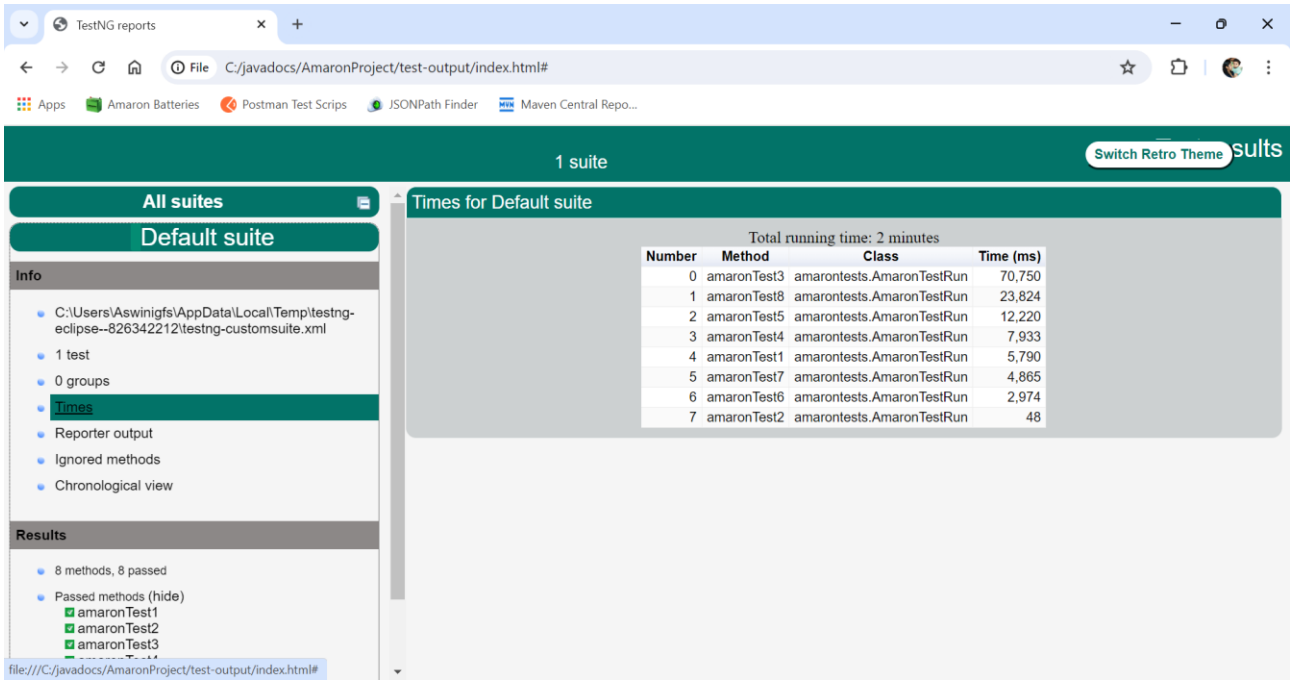
4.1 RECORDINGS

Amaron Test Run.mp4

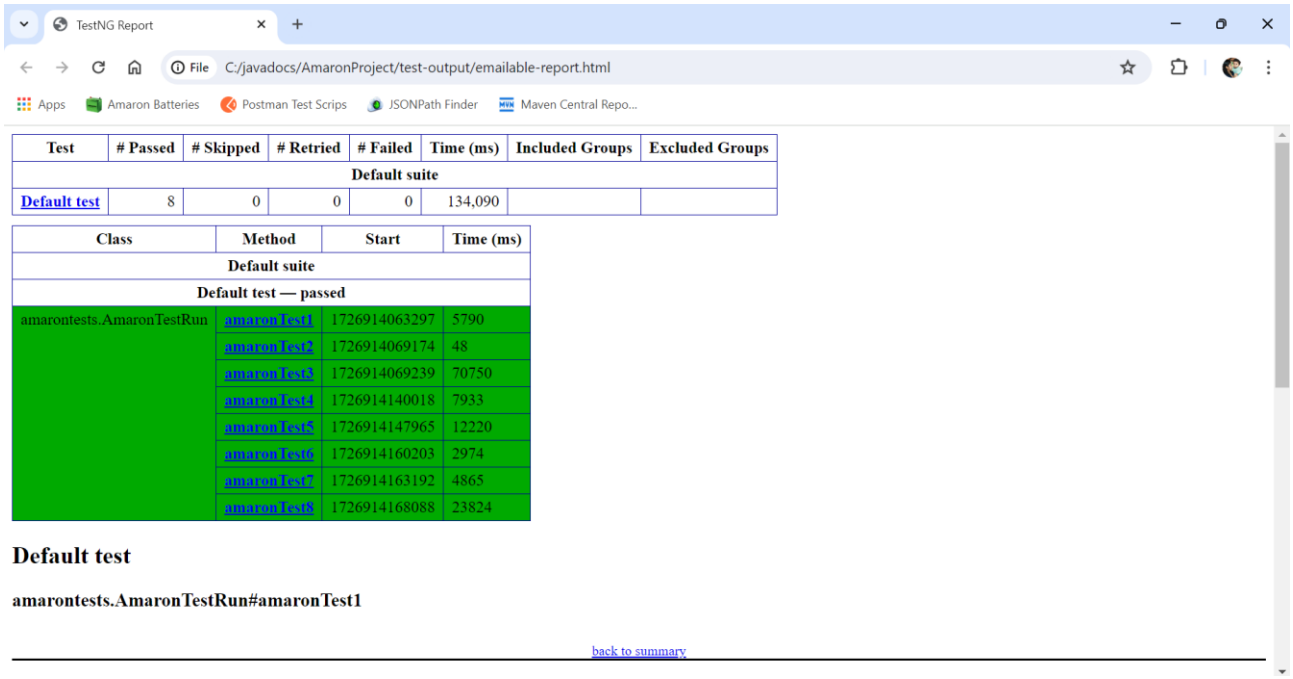
javadocs - AmaronProject_src_te

5. REPORTS

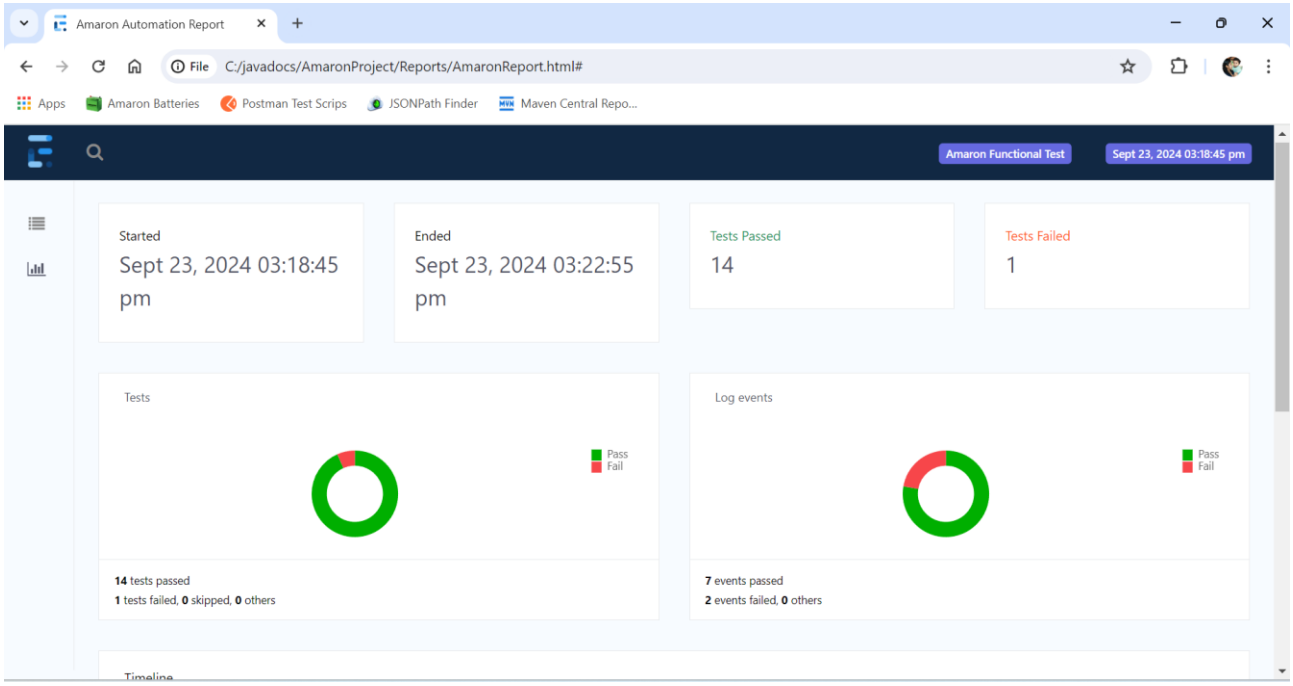
5.1- Index report

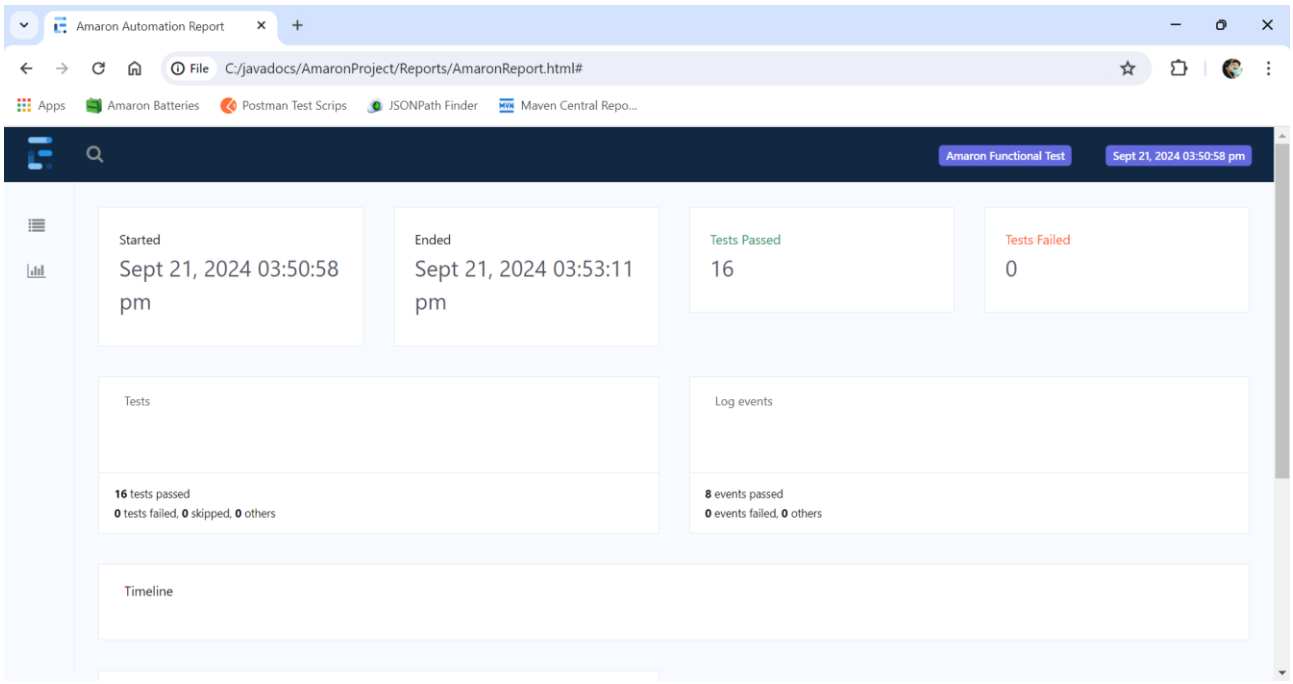


5. 2- Emailable report

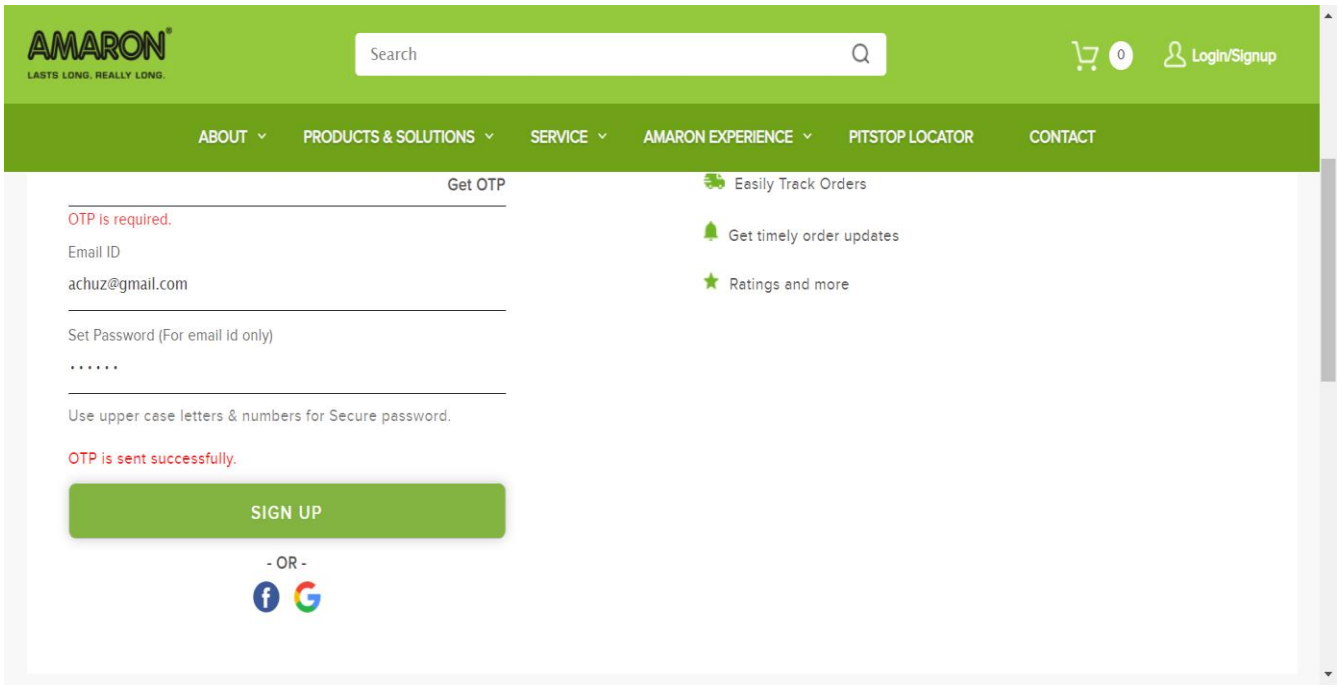


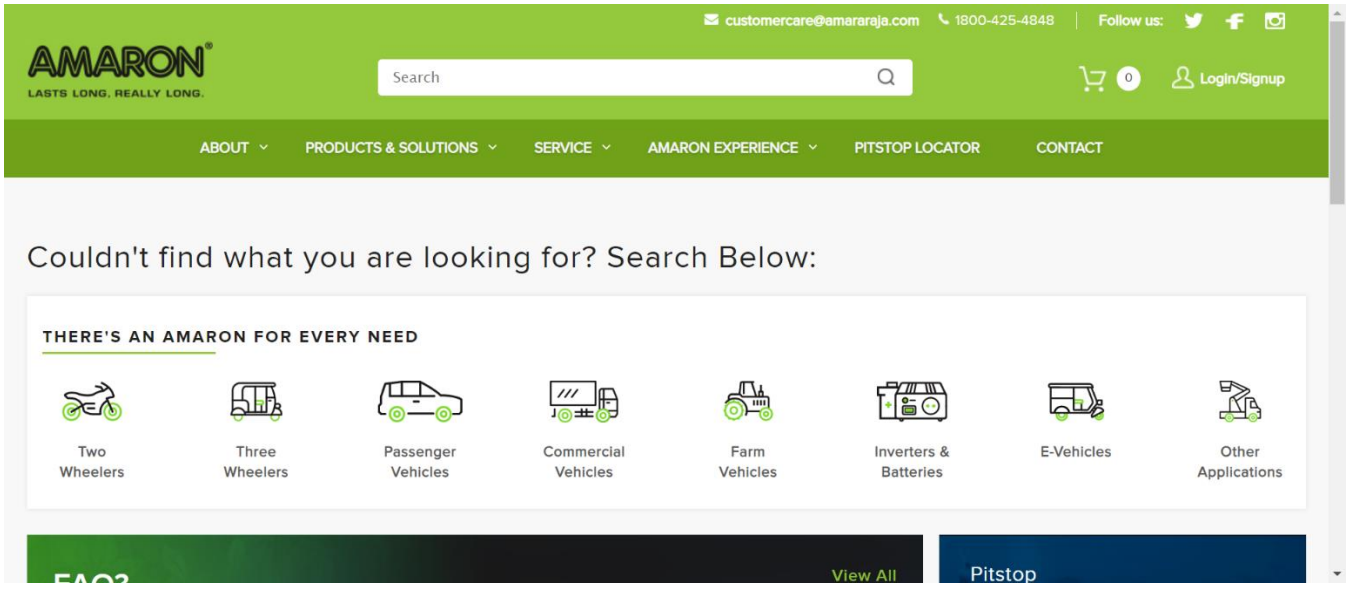
5.3- Extent report





6.SCREENSHOTS





7.CONCLUSION

Amaron, a leading battery manufacturer, offers a comprehensive website featuring products, technical specifications, customer support, and distributor networks. The site provides valuable resources for customers, including product documentation and FAQs.

The objective of this project was to evaluate the Amaron website's functionality, usability, and performance using manual and automation testing. Leveraging both approaches, automation enabled faster and accurate testing, while manual testing validated complex scenarios, including usability, accessibility, and exploratory testing, ensuring a comprehensive evaluation of the website's overall functionality and usability.

The Amaron website demonstrated good functionality and usability, with minor issues identified that did not significantly impact its performance. With 91% of 282 test cases passing, the website demonstrated satisfactory overall performance. To further enhance user experience, recommendations include addressing reported bugs, enhancing the user interface and experience, adding new products and payment methods and enhancing search functionality.

In conclusion, the Amaron website performed well in both manual and automation testing, and with continued improvement, it will become even more welcoming and user-friendly for future interactions.

8.REFERENCES

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