End-to-End Automation Testing of Nykaa Website

Capstone Project – Selenium Automation Testing: Validating E-commerce functionality through automated workflows.

Tools: Selenium | Java | TestNG | Maven

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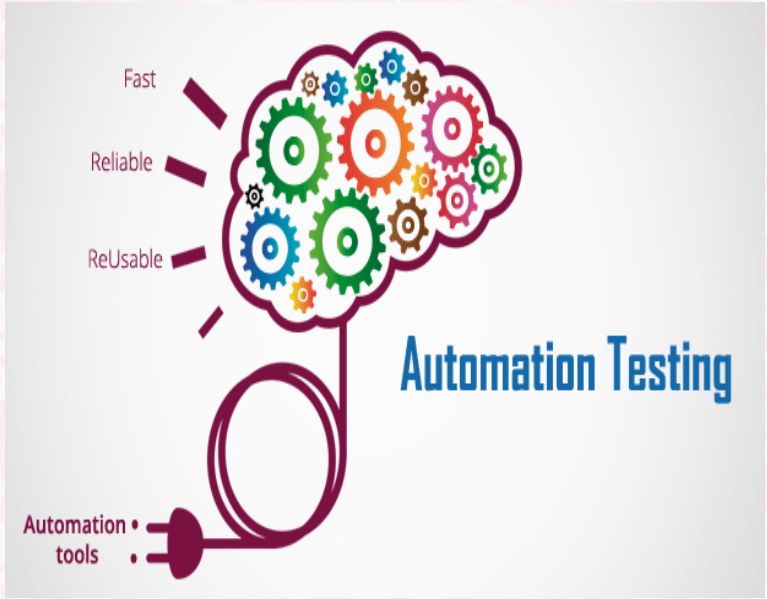

Introduction

This project automates the entire *end-to-end testing* process of the Nykaa e-commerce website. It focuses on validating key functionalities such as product selection, cart management, checkout, and navigation to the payment page. Using **Selenium WebDriver, TestNG, Maven, and Java**, the automation ensures reliability, faster test execution, and reduced manual effort. This presentation explains the project context and tools used.

01 Project Context: Nykaa E-commerce Platform Overview

Application Under Test:

Nykaa Website

Tools and Technologies Used:

- Programming Language: Java
- Automation Tool: Selenium WebDriver
- Test Framework: TestNG
- Build Tool: Maven

Automation Scope:

- Launch Nykaa website
- Search and select a product
- Add product to cart
- Proceed to checkout
- Navigate till payment page

Outcome:

- Automated critical user workflows
- Reduced dependency on manual testing
- Improved reliability of testing process
- Ensured smooth end-to-end functionality of the application

Automation Testing Objectives

Automate end-to-end functionality of the Nykaa website using Selenium and Java to ensure smooth and reliable user experience.

Key Activities:

- Designed automation framework using TestNG and Maven
- Automated test scenarios for product selection, cart validation, and checkout flow
- Executed tests across multiple scenarios
- Validated navigation till payment page

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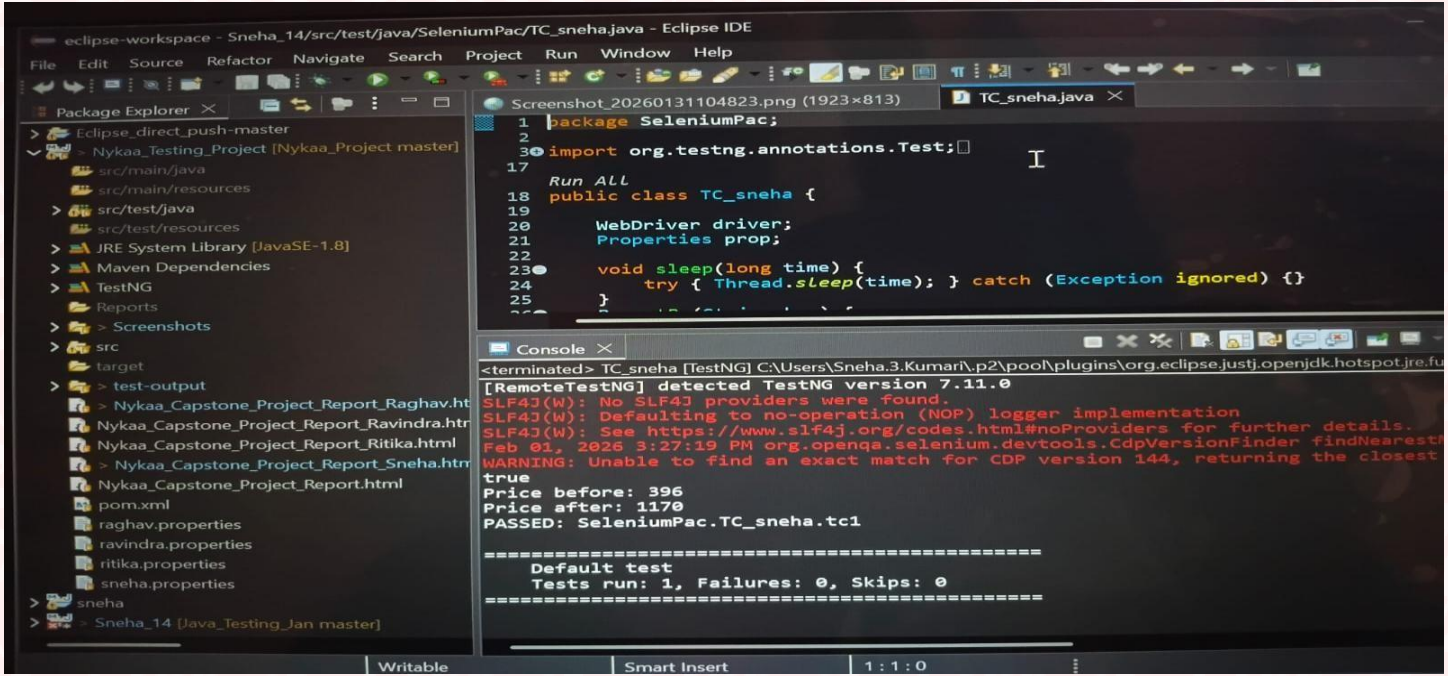
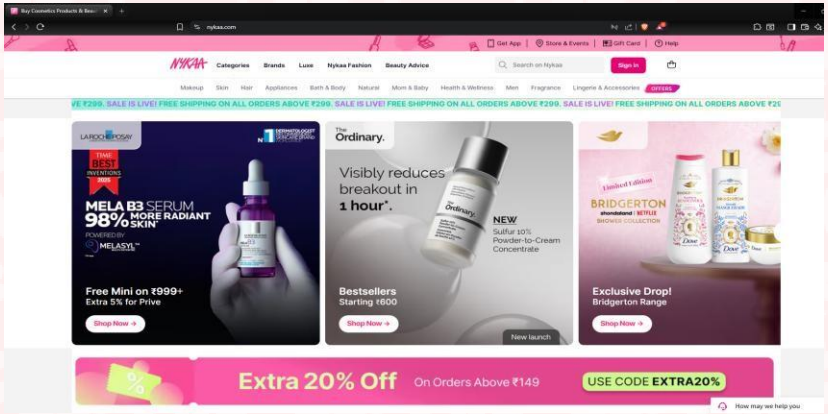
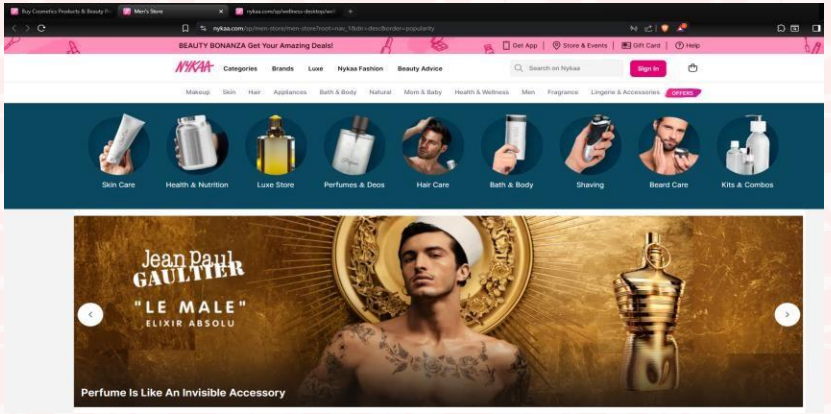
Automation Testing Workflow

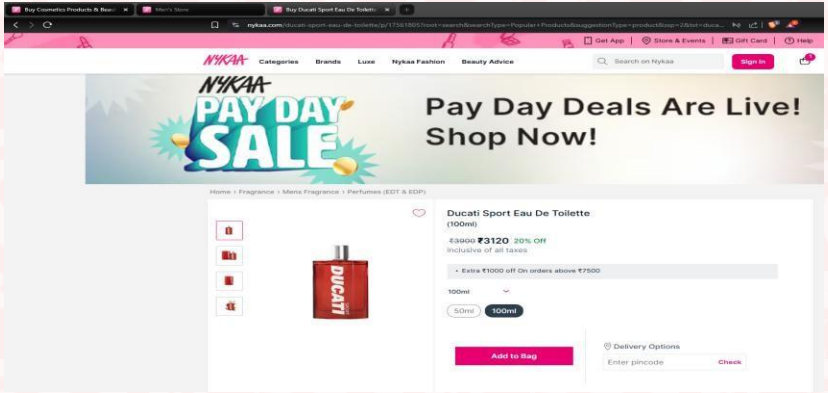
Test Execution Console

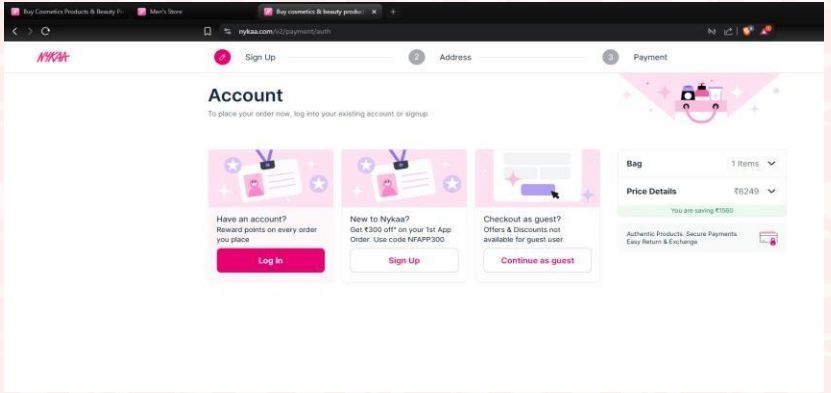


Web Application Screenshot

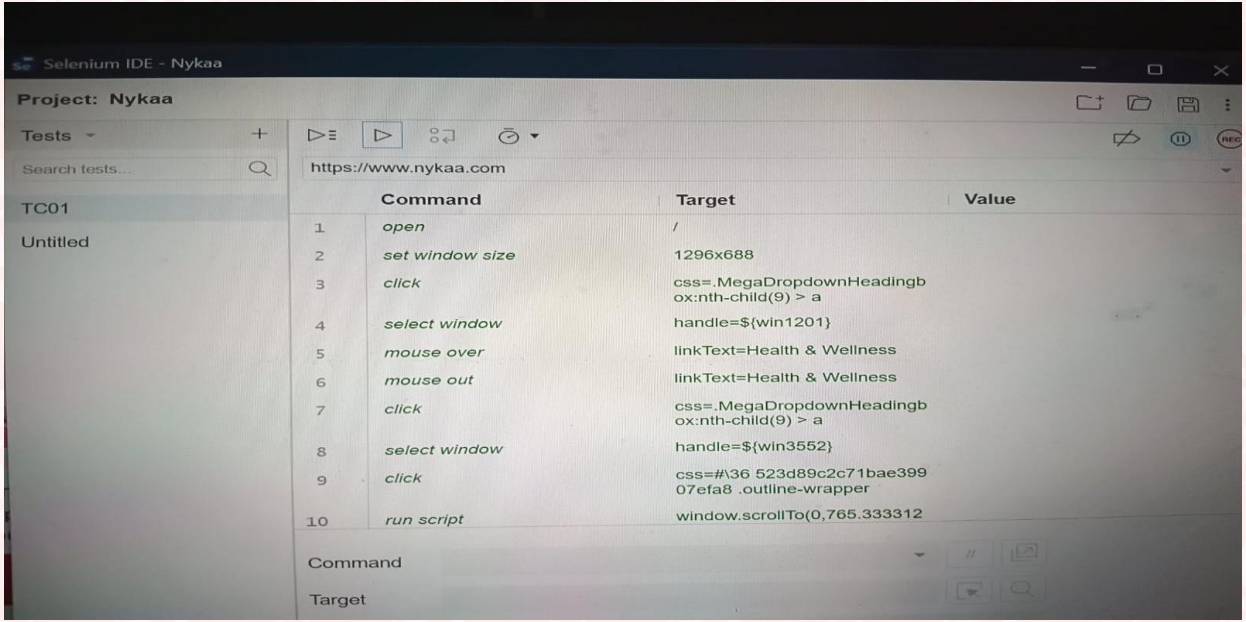








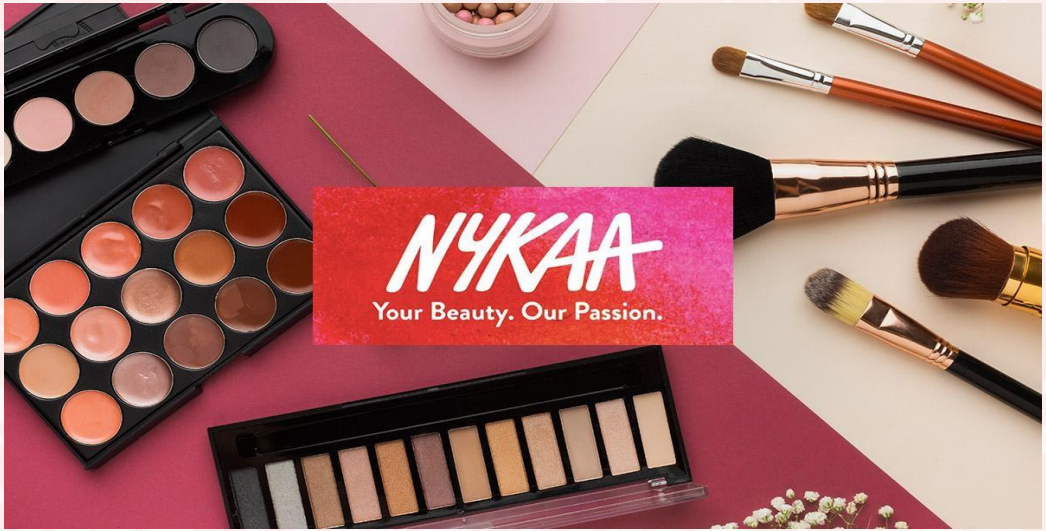
Selenium Automation Testing



Selenium WebDriver and TestNG Usage

Selenium WebDriver is employed to simulate user actions in real web browsers, enabling **robust UI automation**. TestNG manages test execution, allows grouping and prioritization of test cases, and generates detailed reports. Together, they create a stable framework that facilitates effective testing, debugging, and maintenance of automation scripts.

Conclusions

- Successfully automated end-to-end testing of Nykaa website.
- Covered complete user journey from product selection to payment page.
- Reduced manual testing effort and improved execution speed.
- Gained hands-on experience with Selenium, TestNG, Maven, and Java.
- Enhanced understanding of real-world automation testing challenges.

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