# CAPSTONE PROJECT

**TOOLS USED -** AUTOMATION TESTING FRAMEWORK WITH SELENIUM, TESTNG, JENKINS, GIT, CUCUMBER AND JIRA

**PROJECT - NOPCOMMERCE AUTOMATION**

https://demo.nopcommerce.com/

**By Khushi**

# SELF INTRODUCTION

**NAME: KHUSHI**

## TECHNICAL STRENGTHS:

- Strong expertise in Java, Selenium WebDriver, TestNG, Maven, Git, Jenkins, and Jira.
- Hands-on experience in building automation frameworks and implementing CI/CD integrations.
- Proficient in managing test cases through Jira (Zephyr) and generating detailed reports using ExtentReports.

# TYPE OF TESTING UTILISED

## 1. Manual Testing

- Conducted testing activities in Jira Zephyr.
- Manually designed test cases covering:
  - Positive Scenarios
  - Negative Scenarios
  - Edge Cases
- Logged defects directly in Jira for failed test executions.

## 2. CI/CD Testing

- Integrated with Jenkins for continuous integration:
  - Automatically triggered tests on each GitHub commit.
  - Generated ExtentReports including screenshots for every pass and fail step.

## 3. Automated Testing

- Developed using:
  - Selenium WebDriver → For automating browser operations.
  - TestNG Framework → To control test execution and support data-driven testing.
  - Page Object Model (POM) → For a structured and maintainable codebase.
- Key Automated Features:
  - User Login & Account Registration
  - Product Search and Filtering
  - Add to Cart and Checkout Process
  - Wishlist Management & Password Recovery

# PROJECT DESCRIPTION – NOPCOMMERCE AUTOMATION CAPSTONE

The objective of this capstone project is to develop a robust, end-to-end automated testing framework for the nopCommerce demo e-commerce application **(https://demo.nopcommerce.com/)**.

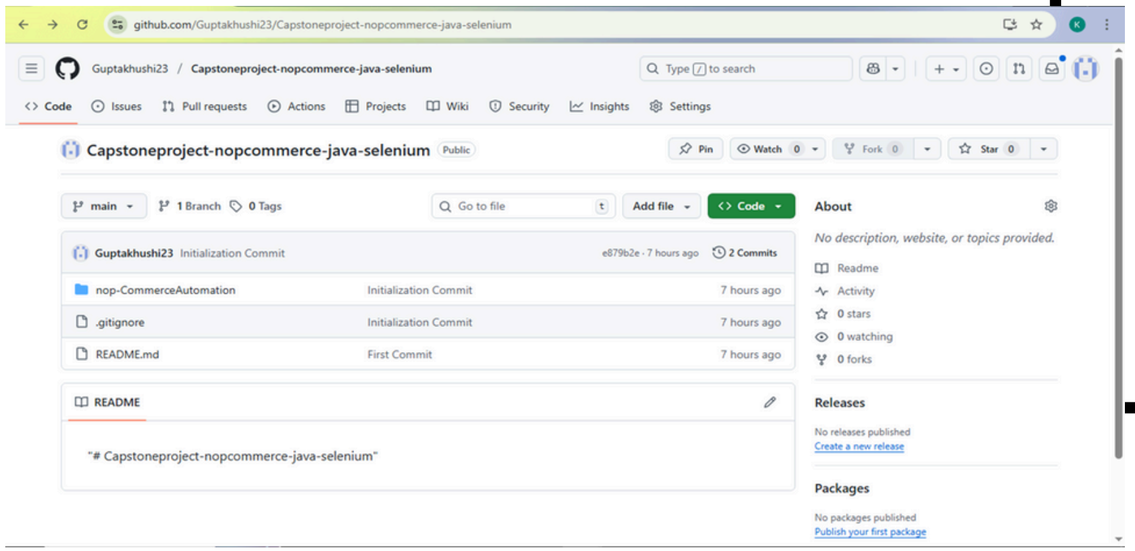
- The framework focuses on automating key functional areas such as:
  - User Registration & Login
  - Product Search & Filter
  - Add to Cart & Checkout Process
  - Wishlist, Review, and Password Reset functionalities.
- The solution ensures efficient regression, sanity, and smoke testing using a modular approach (Page Object Model), and executes automated test cases in a CI/CD pipeline using Jenkins.
- All requirements, test cases, and defects are tracked in Jira (with Zephyr) for full traceability and collaboration across development and QA teams.

# DESCRIPTION OF MY WORK

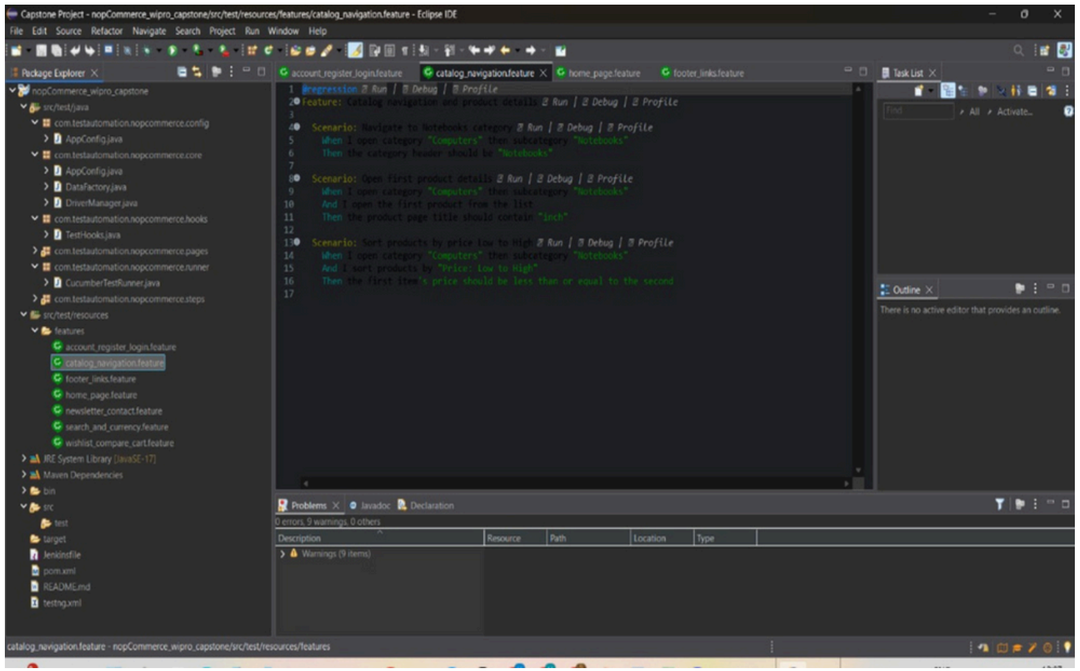
- Developed and established a Selenium WebDriver automation framework leveraging Java, TestNG, and Cucumber BDD for the nopCommerce demo application.
- Implemented the Page Object Model (POM) architecture with reusable components for WebDriver setup, synchronization, logging, reporting, and data-driven testing via Apache POI.
- Handled requirements, user stories, and test cases in Jira (Zephyr), maintaining complete traceability and execution oversight.
- Employed Git/GitHub for source control with organized branching and commit practices to facilitate team collaboration.
- Set up Jenkins CI/CD pipelines to automatically fetch updates, run TestNG and Cucumber test suites, and produce ExtentReports with integrated screenshots after each build.
- Performed cross-browser testing on Chrome and Firefox to verify compatibility and performance consistency.
- Prepared comprehensive execution summaries, defect records, and final project documentation to ensure full QA lifecycle validation.

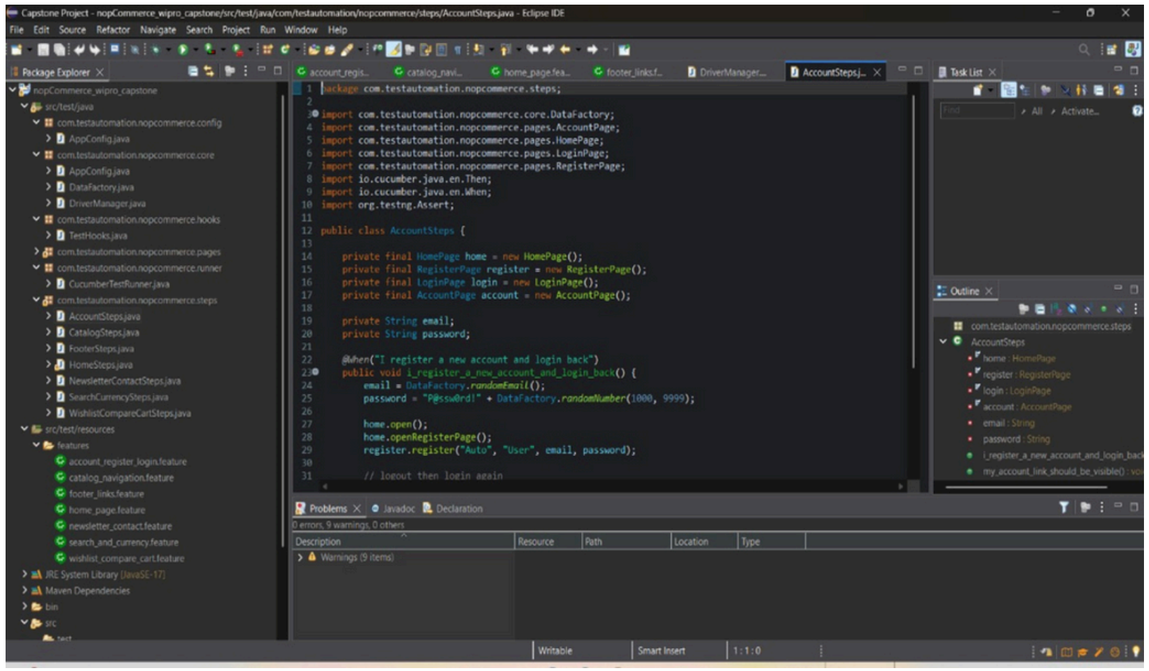
# AUTOMATION FRAMEWORK SCREENSHOT FROM GIT REPOSITORY

```
C:\Users\hg198\Desktop\Capstone Project\nopCommerce_wipro_capstone>git push -u origin main
remote: Permission to himanshu28-aug/nopCommerce_wipro_capstone_project.git denied to grabky-development.
fatal: unable to access 'https://github.com/himanshu28-aug/nopCommerce_wipro_capstone_project.git/': The requested URL returned error: 403

C:\Users\hg198\Desktop\Capstone Project\nopCommerce_wipro_capstone>git remote -v
origin  https://github.com/himanshu28-aug/nopCommerce_wipro_capstone_project.git (fetch)
origin  https://github.com/himanshu28-aug/nopCommerce_wipro_capstone_project.git (push)

C:\Users\hg198\Desktop\Capstone Project\nopCommerce_wipro_capstone>git remote remove origin

C:\Users\hg198\Desktop\Capstone Project\nopCommerce_wipro_capstone>git remote add origin https://github.com/himanshu28-aug/nopCommerce_wipro_capstone_projec
t.git

C:\Users\hg198\Desktop\Capstone Project\nopCommerce_wipro_capstone>git branch -M main

C:\Users\hg198\Desktop\Capstone Project\nopCommerce_wipro_capstone>git push -u origin main
remote: Permission to himanshu28-aug/nopCommerce_wipro_capstone_project.git denied to grabky-development.
fatal: unable to access 'https://github.com/himanshu28-aug/nopCommerce_wipro_capstone_project.git/': The requested URL returned error: 403

C:\Users\hg198\Desktop\Capstone Project\nopCommerce_wipro_capstone>git remote remove origin

C:\Users\hg198\Desktop\Capstone Project\nopCommerce_wipro_capstone>git remote add origin https://github.com/himanshu28-aug/nopCommerce_wipro_capstone_projec
t.git

C:\Users\hg198\Desktop\Capstone Project\nopCommerce_wipro_capstone>git push -u origin main
Enumerating objects: 91, done.
Counting objects: 100% (91/91), done.
Delta compression using up to 8 threads
Compressing objects: 100% (78/78), done.
Writing objects: 100% (91/91), 33.51 KiB | 164.00 KiB/s, done.
Total 91 (delta 28), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (28/28), done.
To https://github.com/himanshu28-aug/nopCommerce_wipro_capstone_project.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.

C:\Users\hg198\Desktop\Capstone Project\nopCommerce_wipro_capstone>
```

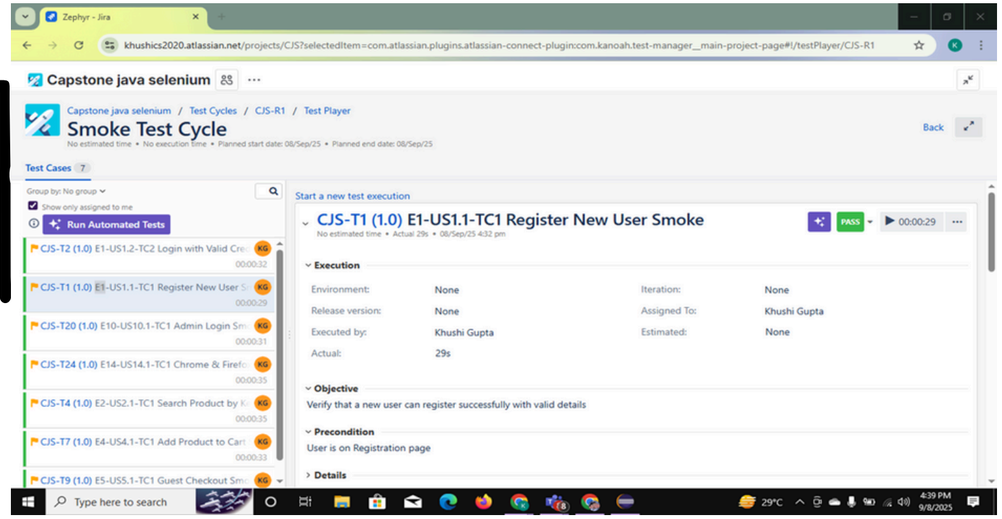


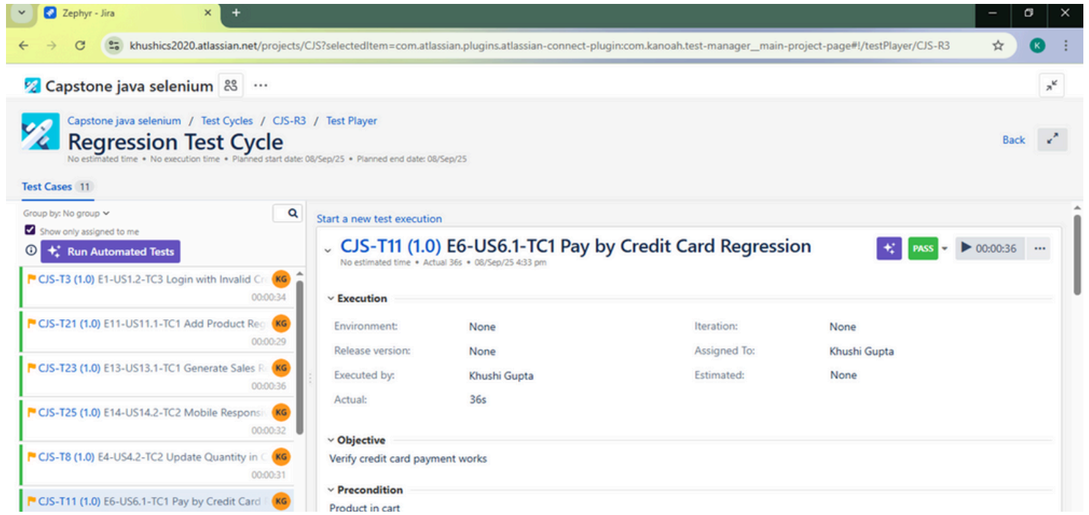
# AUTOMATION APPROACH,PAGE OBJECT MODEL AND DATA DRIVEN TESTING SCREENSHOT

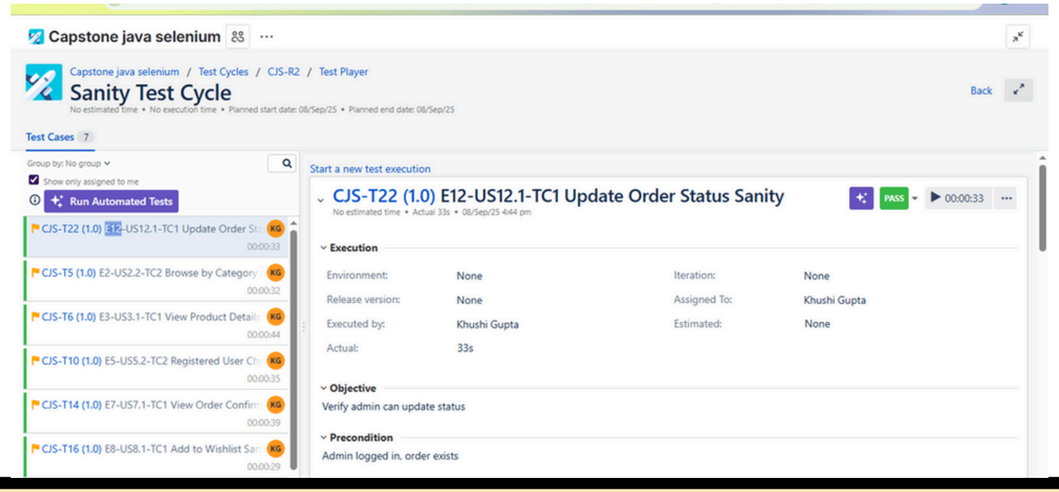


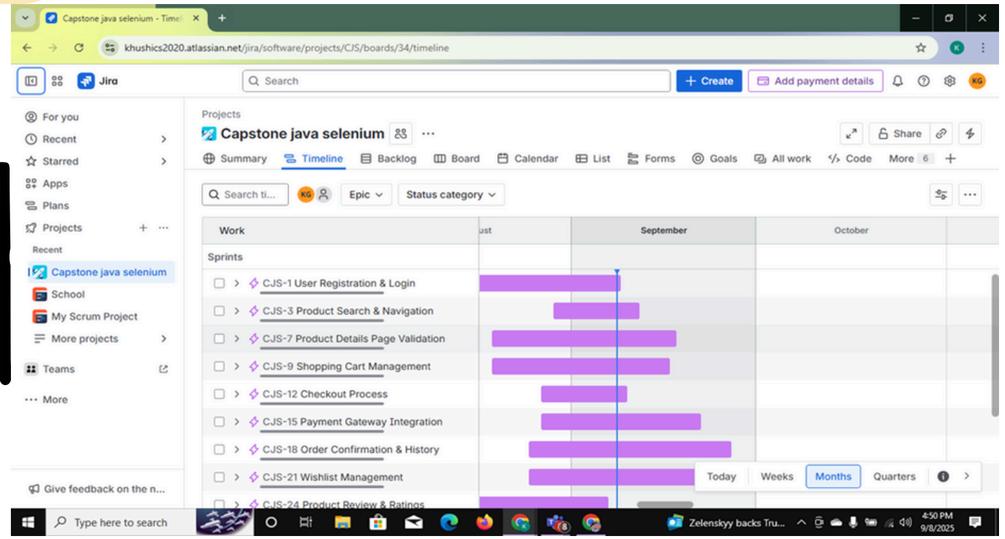
# ZEPHYR BOARD - SMOKE CASE, SANITY CASE AND REGRESSION CYCLE

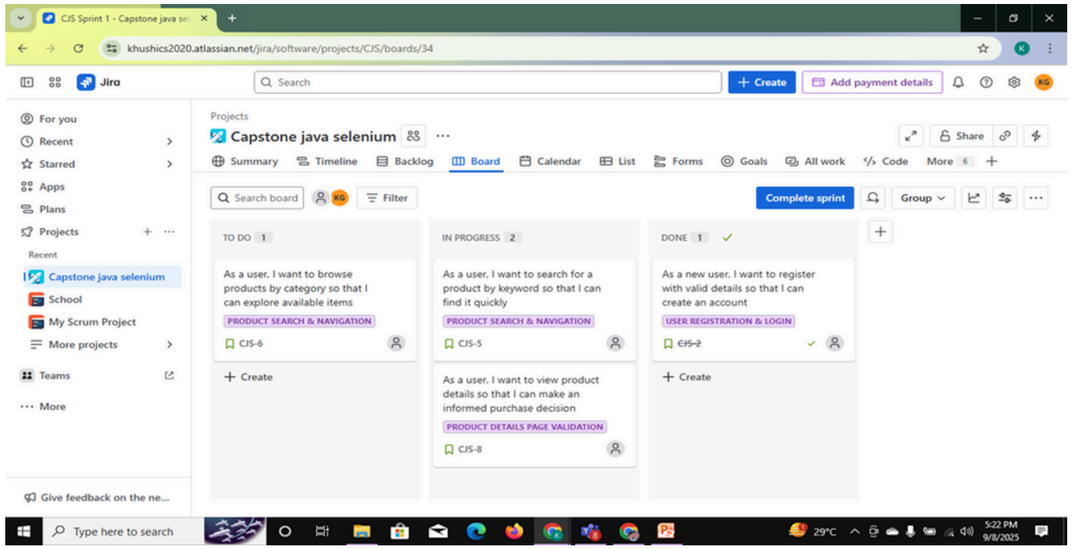


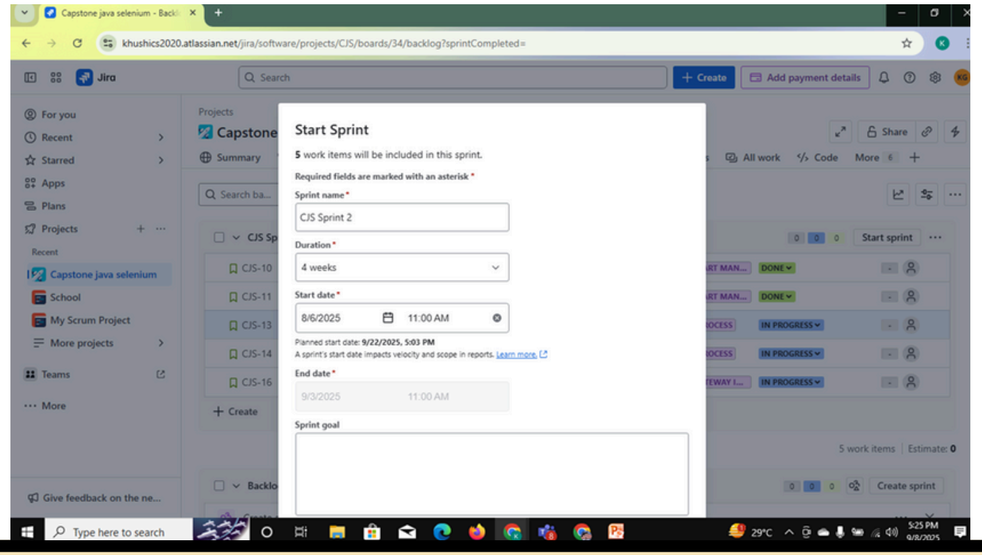



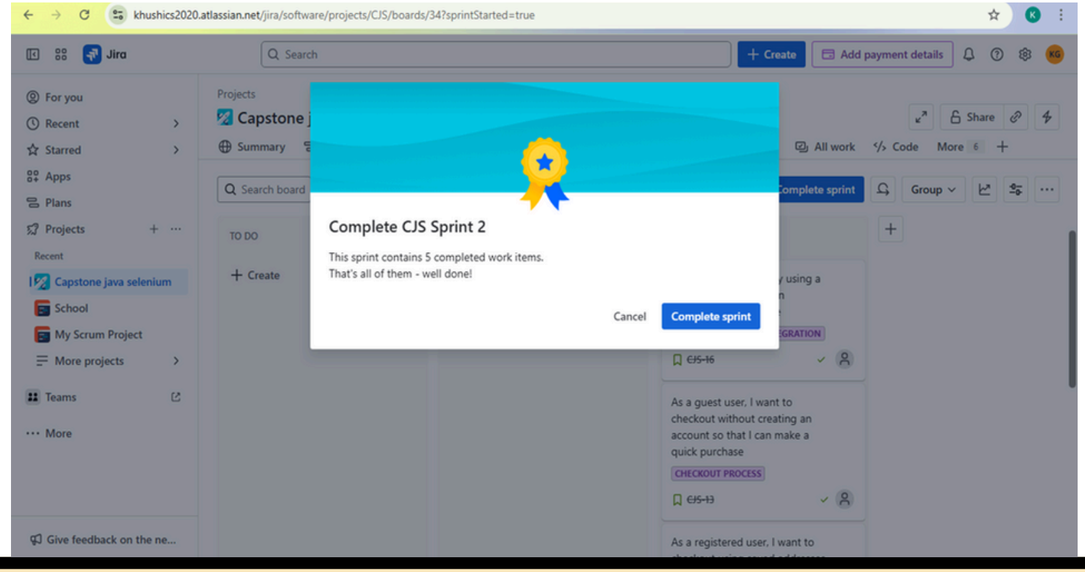



# JIRA BACKLOG SCREENSHOT AND DESCRIPTION ONE LINE TO SHOW AGILE WORK IN SPRINT

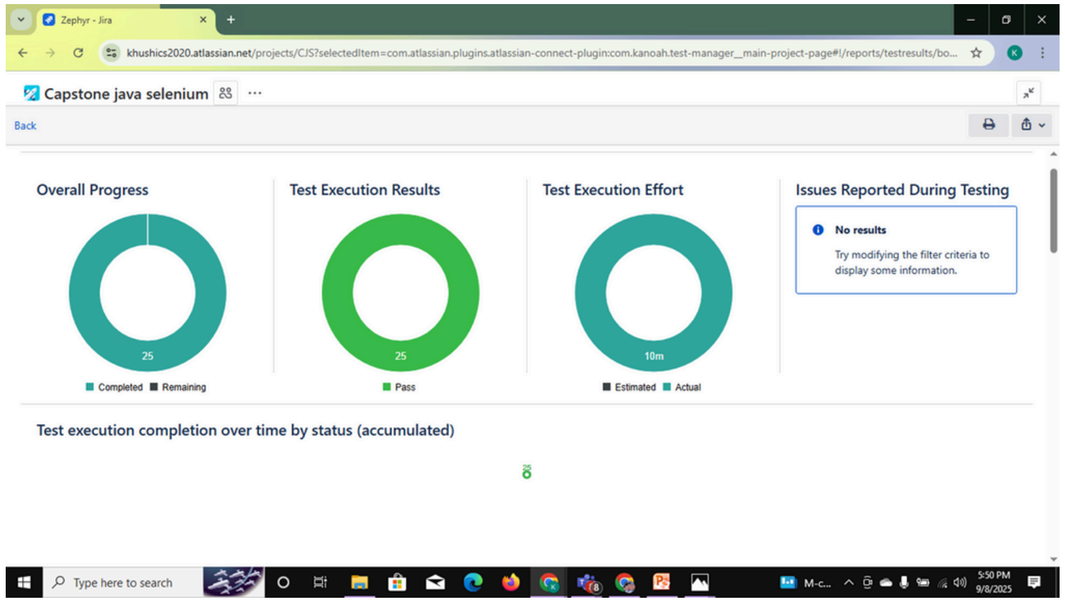


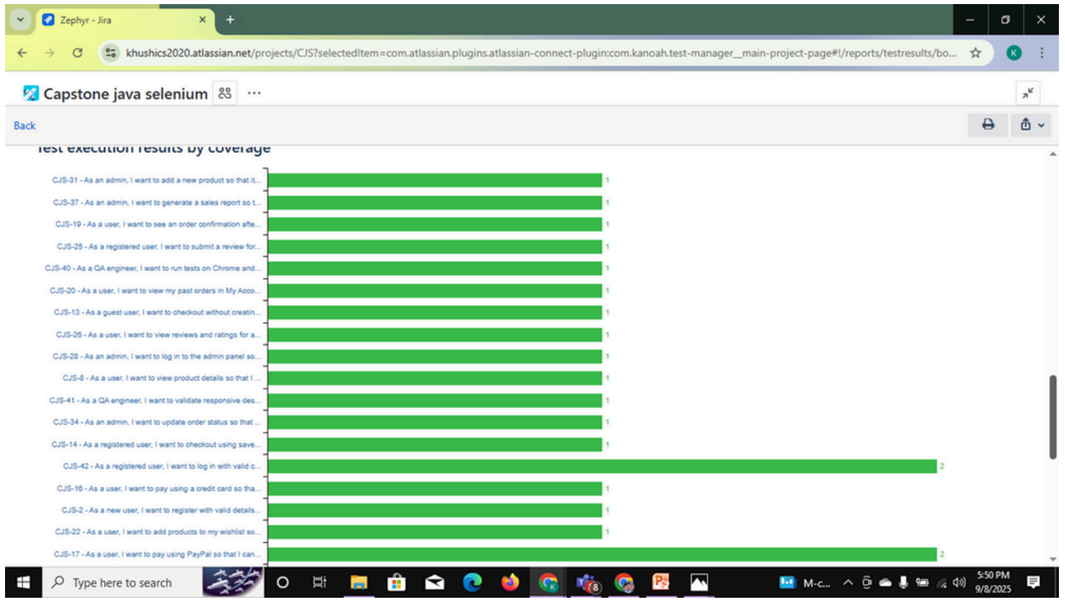



# TEST REPORT FROM ZEPHYR - SCREENSHOT



# THANK YOU