# Automation Testing Assignment – E-Commerce Workflow (Selenium + Java)

Dear Applicant,

You are required to complete the following assignment as part of your application for the Automation Testing Internship at Ziegler Aerospace. The objective is to evaluate your ability to build scalable, logic-driven test automation workflows using Selenium and Java for a dynamic e-commerce platform.

## Assignment Title:

Automated Testing of Dynamic E-Commerce Flow on **https://automationteststore.com/**

## Assignment Objective:

Develop a test suite that navigates through multiple workflows of the e-commerce site, detects dynamic behaviors, performs validation, and produces automated reports. The goal is to test your ability to handle real-world UI automation problems including non-linear navigation, dynamic DOM elements, and validation edge cases.

## Submission Format:

Upload your complete project as a Google Drive or GitHub link and share it via Internshala's messaging portal. The folder must follow this structure:

```
ECommerce_Testing_Assignment/
│
├── src/                              → Source code (organized by POM)
│                                        ├── pages/
│                                        ├── tests/
│                                        └── utils/
│
├── testdata.csv                      → Test input data (email, names, etc.)
├── screenshots/                      → Store only failure screenshots
├── report.txt                        → Execution log and validations summary
├── README.md                         → Setup instructions, explanation, known issues
├── pom.xml / build.gradle            → If using Maven/Gradle
├── testng.xml                        → TestNG runner file (if applicable)
```

## Assignment Instructions:

### 1. Homepage & Category Verification

- Navigate to the homepage: https://automationteststore.com/
- Dynamically detect and print all main category names (e.g., Men, Skincare, Fragrance).
- Navigate into any random category using dynamic logic (not hardcoded names).
- Assert that the category has at least 3 visible products.

### 2. Product Selection & Cart Addition

- Randomly select and add 2 products to the cart.
- Capture and log each product's:
  - Name
  - Price
  - Quantity
  - Product URL
- Validate if the cart counter updates correctly.
- If a product is out of stock or button is missing, log it in report.txt.

### 3. Cart & Checkout Workflow

- Navigate to the shopping cart.
- Assert that both added items are listed with correct price and total.
- Proceed to checkout and simulate user registration (use dummy data from testdata.csv).

### 4. Negative Scenario (Validation Testing)

- On the registration page:
  - Leave one required field empty (e.g., password or last name).
  - Attempt to submit and assert the error message is displayed.
  - Take a screenshot upon validation failure and store it in /screenshots/.

### 5. Reporting

- After test completion:
  - Log total product cost, failed validations, and skipped elements in a report.txt.
  - Ensure any failures automatically trigger a screenshot capture.

## Technical Guidelines

| *Parameter* | *Requirement* |
|---|---|
| *Language* | Java |
| *Framework* | Selenium WebDriver |
| *Test Framework* | TestNG (preferred) or JUnit |
| *Design Pattern* | Page Object Model (POM) |
| *Wait Strategy* | WebDriverWait (no Thread.sleep) |
| *Test Data* | Externalized via .csv |

| | |
|---|---|
| *Error Capture* | Screenshot on failure |

## Bonus Challenge (Optional):

Implement logic to detect UI changes or hidden sections using JavaScript executor. Use retry logic for failed tests.

## Integrity Clause:

This assignment is designed to test your own problem-solving and technical skill. Please do not copy-paste solutions from GitHub, YouTube, or AI platforms. Submissions will be reviewed for originality, and any duplicated or GPT-generated content will be rejected.

## Deadline:

You are expected to submit your completed assignment within 3 calendar days from the date of receipt. Submissions received after the deadline will not be evaluated.

We look forward to reviewing your submission.

Talent Team
Ziegler Aerospace