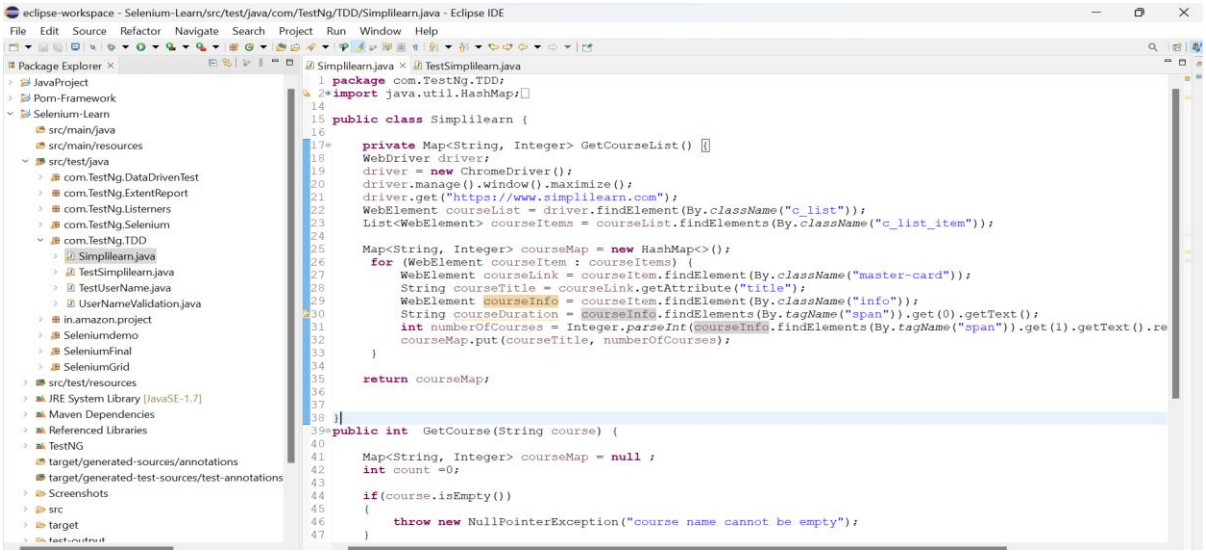
Test-Driven Development (TDD) with TestNG for E-Learning Application

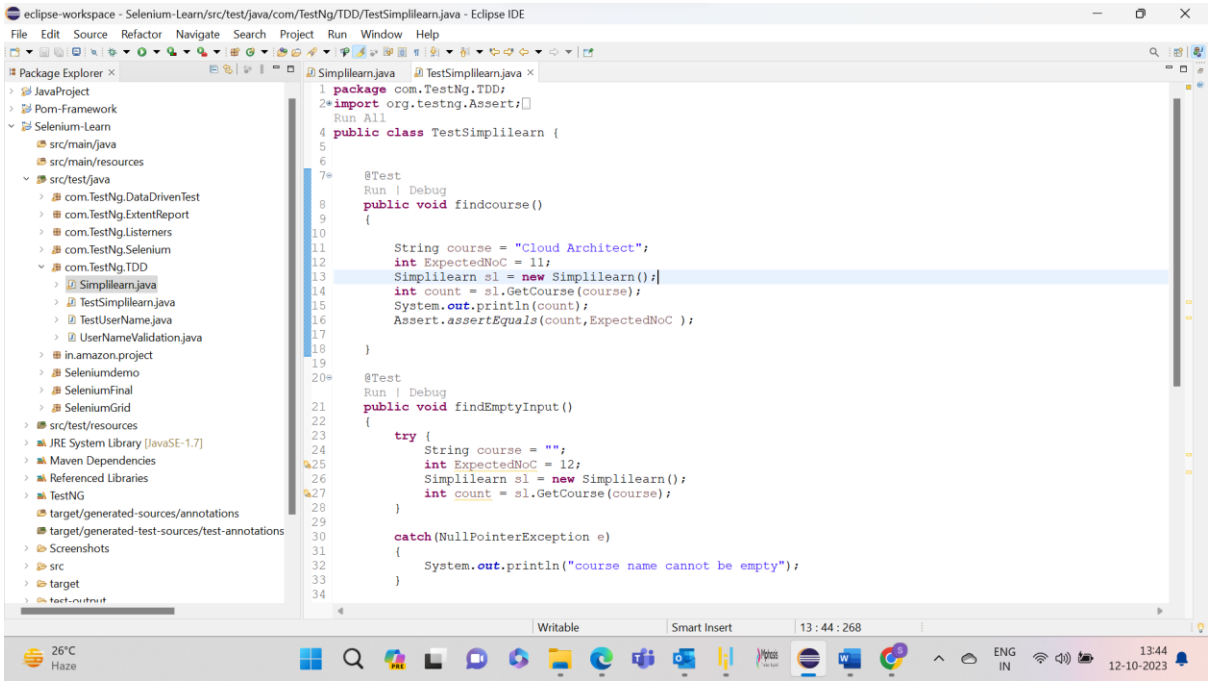
Develop an e-learning web application with course information retrieval using Test-Driven Development (TDD) and TestNG framework.

Test Classes

1.Simplilearn Class



2.TestSimplilearn Class



javaThis class contains TestNG test methods to validate the functionality of the Simplilearn class.

Test Cases

1. findcourse Test:

- Description: Verify that the GetCourse method correctly returns the expected number of courses for a specific course name ("Cloud Architect").

2. findEmptyInput Test:

- Description: Check the behavior of the `GetCourse` method when an empty string is provided as the course name.

- Expected behavior: Print a message indicating that the "course name cannot be empty."

3. findInvalidInput Test:

- Description: Check the behavior of the `GetCourse` method when an invalid course name is provided

- Use a try-catch block to capture the `NullPointerException` that should be thrown.

- Expected behavior: Print a message indicating that the "course name does not exist in the list."

TDD Process

1. Red-Green-Refactor Cycle:

- Write a failing test case.

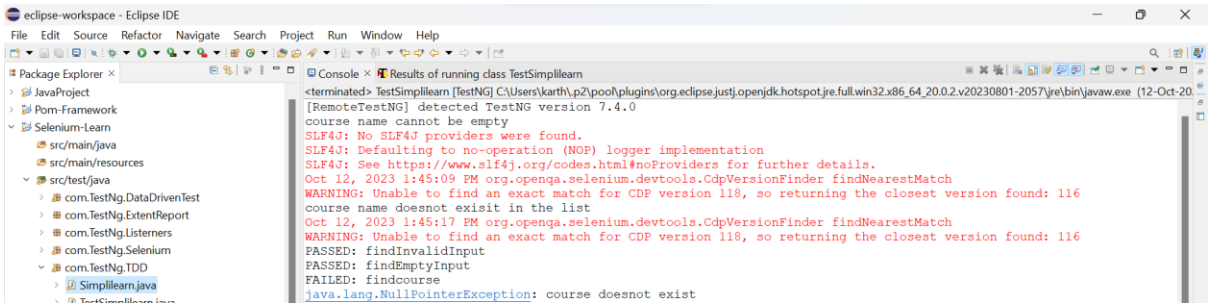
- Implement the code to make the test pass.

- Refactor the code as needed.

2. Implement the `Simplilearn` class to interact with the Simplilearn website and scrape course information.

3. Configure TestNG to execute test suite.

4. Use Selenium WebDriver for web scraping. Ensure that the Chrome WebDriver is installed and accessible.


eclipse-workspace - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Package Explorer
JavaProject
Pom-Framework
Selenium-Learn
src/main/java
src/main/resources
src/test/java
com.TestNg.DataDrivenTest
com.TestNg.ExtentReport
com.TestNg.Listerners
com.TestNg.Selenium
com.TestNg.TDD
Simplilearn.java
Console
Results of running class TestSimplilearn
<terminated> TestSimplilearn [TestNG] C:\Users\karth\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_20.0.2.v20230801-2057\jre\bin\javaw.exe (12-Oct-20
[RemoteTestNG] detected TestNG version 7.4.0
course name cannot be empty
SLF4J: No SLF4J providers were found.
SLF4J: Defaulting to no-operation (NOP) logger implementation
SLF4J: See https://www.slf4j.org/codes.html#noProviders for further details.
Oct 12, 2023 1:45:09 PM org.openqa.selenium.devtools.CdpVersionFinder findNearestMatch
WARNING: Unable to find an exact match for CDP version 118, so returning the closest version found: 116
course name doesnot exisit in the list
Oct 12, 2023 1:45:17 PM org.openqa.selenium.devtools.CdpVersionFinder findNearestMatch
WARNING: Unable to find an exact match for CDP version 118, so returning the closest version found: 116
PASSED: findInvalidInput
PASSED: findEmptyInput
FAILED: findcourse
java.lang.NullPointerException: course doesnot exist