Module-7 Selenium-testNG

Problem Statement 1: Implementing Retry Mechanism

Implement a retry mechanism for failed tests using the IAnnotationTransformer interface. Customize the retry behavior for specific tests, allowing them to rerun a specified number of times upon failure.

```
package testNG;

import org.testng.IRetryAnalyzer;
import org.testng.ITestResult;

public class RetryAnalyzer implements IRetryAnalyzer {
    private int retryCount = 0;  // Current retry attempt
    private static final int maxRetryCount = 3;  // Maximum retry attempts

    @Override
    public boolean retry(ITestResult result) {
        if (retryCount < maxRetryCount) {
            retryCount++;
            System.out.println("Retrying test: " + result.getName() + " |
Attempt: " + retryCount);
            return true;  // Retry the test
        }
        return false;  // No more retries
    }
}
```

```
package testNG;

import org.testng.IAnnotationTransformer;
import org.testng.annotations.ITestAnnotation;

import java.lang.reflect.Constructor;
import java.lang.reflect.Method;

public class RetryTransformer implements IAnnotationTransformer {
    @Override
    public void transform(ITestAnnotation annotation, Class testClass,
Constructor testConstructor, Method testMethod) {
        // Apply RetryAnalyzer to all tests
        annotation.setRetryAnalyzer(RetryAnalyzer.class);
    }
}
```

```java
package testNG;

import org.testng.Assert;
import org.testng.annotations.Test;


public class RetryTest {


//	@Test(retryAnalyzer = RetryAnalyzer.class)
	@Test

	void retryTest() {
		Assert.fail();
	}

}
```

```xml
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE suite SYSTEM "https://testng.org/testng-1.0.dtd">
<suite name="RetryTest">
	<listeners>
	  <listener class-name="testNG.RetryTransformer" />
    </listeners>
  <test  name="retry">
    <classes>
      <class name="testNG.RetryTest"/>
    </classes>
  </test> <!-- retry -->
</suite> <!-- RetryTest -->
```