The Economist Test Automation Framework

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1. Introduction

This Test Automation Framework is a Hybrid Test Automation Framework, designed to automate some UI Test Cases. The framework provides the user with various benefits that help them to develop, execute and report the automation test scripts efficiently. this framework is the combination of one or more frameworks Data-Driven Framework, Page-Object Model pulling from their strengths and trying to mitigate their weaknesses. Git is used to keep track the Development.

Language: Java

• Version Control: Git

• Automation Library: Selenium WebDriver

• Object Repository: Page-Object Model (Page Factory)

Build Tool & Project: Maven

Test Runner Library: TestNG

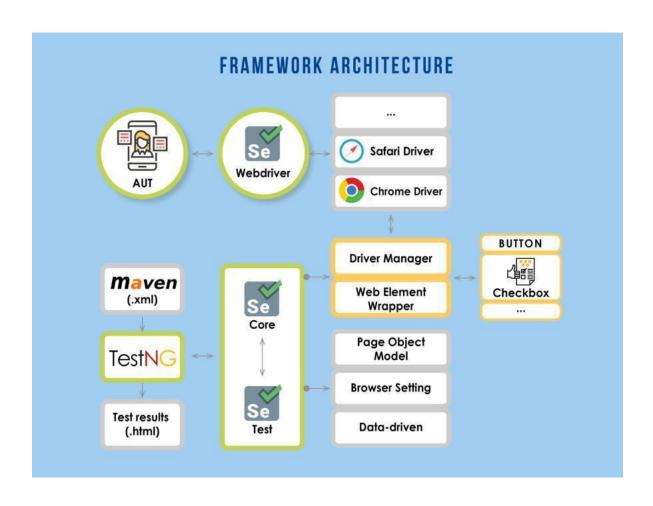
Reporting: Extent Repots

• **Logging:** Log4J

• **CI**- Jenkins

Browsers Supports: Google Chrome, Firefox, Safari, IE

2. Framework Architecture



3. Project File Structure

Pro	ioct	Evn	orer	5:3

- TheEconomistTest [TheEconomistTest master]
 - - ▼ 携 com.economist.qa.base
 - > A TestBase.java
 - - 3 config.properties
 - B com.economist.qa.ExtentReportListener
 - > B ExtentReporter.java
 - B com.economist.ga.pages
 - > 👪 BrowseJobs.java
 - > !A HomePage.java
 - > 🚜 LoginPage.java
 - > RegisterPage.java
 - >

 SelectJobs.java
 - → ⊕ com.economist.ga.testdata
 - TheEconomistTestData.xlsx
 - ▼ B com.economist.qa.util
 - > 🔏 TestUtil.java
 - - → B com.economist.qa.testcases
 - BrowseJobTest.java
 - > !A HomeTest.java
 - >
 LoginPageTest.java
 - RegisterPageTest.java
 - >

 SelectJobTest.java
 - →

 Ø src/main/resources
 - log4j.properties
 - testng.xml > ■ JRE System Library [JavaSE-1.7]
 - > Maven Dependencies

 - > M TestNG
 - > 😝 src
 - > 🗁 target
 - > @ test-output
 - application.log
 - 👸 debug.log

 - README.md

Base Class for all the pages , driver init and entry point of the test Execution

Config Package: contains config properties files with baseURL, **Browser Selection details**

Extent Report Implementation, for Test Execution Report

Page Object Model: Page Factory, All Pages with their Object Repository and Related Function.

Test Data file , used to Save User Input Data for Data driven Approach

Common Helper with Utility Methods

Test cases files containing all Test cases

TestNg executer xml file and Log4J properties files

Maven dependencies and drivers

Generated Log File

Maven Dependency file

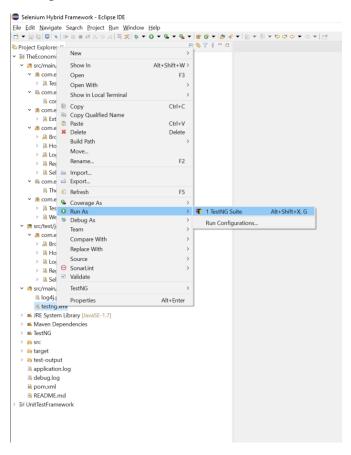
4. How to execute Test Suite

There are There are primarily 2 ways to execute the Test Suite.

- a) In Eclipse, run Test cases as TestNg Suite
- b) Using Command line

Run Test cases as TestNg Suite:

- Go to Eclipse, open the Maven Project.
- look for the testng.xml file under "src/main/resource/" folder and choose the option Run As->
 TestNg Suite



Using Command line

- Make sure you have Maven install/Configure and set system path.
- Now copy the < Project path> and < testng.xml file path>
- Now open the command line and go to < Project path>.
- Then run the command mvn clean test -DsuiteXMLFile=<testng.xml file path

5. Test Execution and Result File

TestNG xml file is used to execute the Test cases, even for the parallel execution, we can use the TestNG xml file. We just need to execute the testng.xml file as a "TestNG" project to execute the Test Suits.

After Execution, Test Result file (Extent Report) will be Generated. (See below attached result file).

