FRAMEWORK ARCHITECTURE USERGUIDE

TestNg.xml

TC-01

TC-02

Listeners

WebDriverUtils

FileUtils

BaseTest

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GUI

Test Scripts

Mode1

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Generic Library

Framework

Framework is a well organized structure of packages where one xml file takecare of entire batch execution without any manual interventions.

Generic Library or Common Library:

In generic library we have to create a utility file and keep all reusable functions in one place and use when it required. The utility file can be call multiple times from any other testcase.

Generic Library contains

1.BaseTest

It contains methods with annotations(@)

@BeforeSuite – It helps to connect to database and generate report.

@BeforeTest – This method launch the browser for Parallel execution.

@BeforeClass – It launch the browser for Sequence execution.

@BeforeMethod – This method is to login the application.

@AfterMethod – This method is to logout the application.

@AfterClass – It close the browser for Sequence execution.

@AfterTest – It close the browser for parallel execution.

@AfterSuite – It helps to disconnect the database.

2.FileUtils

FileUtils we can get data from property file, we have to create new object and pass the path using FileInputStream. we can read the data and write the data from xml file.

3.WebDriverUtils

It contains all common methods which we can use multiple times in test scripts like implicitlywait, movemouseOnelement, Alert, Switch method etc.

4.Listeners

Listeners is a method to take screenshot for failed test cases.

5.Resource

It contains jar files, documents and driver files like chromedriver.exe, geckodriver.exe, common-io, poi etc.

6.Test Data

In framework we store data from external data source and execute test based on it. The data input can be MS excel, database, text file, XML file etc.

Advantage of Test Data

* Running the testscript with different credentials is easy.
* Running the testscript with different server is easy.
* Running the testscript with different browser is easy.
* Modification and maintenance of data in external resource is easy.

Object Repository

Object repository is a collection of all web element in one place, as per the rule of the automation element locators like id, xpath etc. should not be hardcoded within a testscript instead we should get element from external resource or object repository, because maintenance and modification of element is difficult whenever UI or Requirement is being changed.

Advantage of Object Repository

* Reusability of element locators.
* No need to put effort to re-write xpath again and again.
* Modification of element locator in object repository is easy whenever req change.
* Testscript development faster because of re-usability of element.
* We can save test development time.
* Test Script code is optimize.
* We can avoid staleElementReferenceException.

7.Screenshot

To take screenshot we use interface called takesScreenshot. If any testcase gets fail then we take screenshot.