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Maven Module Framework

Mavens are used in framework for downloading the latest jar files from internet and also it is used as build creation. We need to specify the entire maven repository in POM.XML file https://mvnrepository.com/ is the web site user can gets the entire required repository

Parallel execution

Parallel testing can be achieved only through TestNG it is the process of executing application on same machine with different set of browser to achieve that user has to do setting in testing.xml file as shown below

```
<suite name="Suite">
 <test thread-count="5" name="Test">
  <parameter name="Browser" value="chrome"></parameter>
   <classes>
   <class name="com.Test"/>
   </classes>
  </test> <!-- Test -->
</suite> <!-- Suite -->

<suite name="Suite">
 <test thread-count="5" name="Test">
  <parameter name="Browser" value="firefox"></parameter>
    <classes>
      <class name="com.Test"/>
    </classes>
  </test> <!-- Test -->
</suite> <!-- Suite -->
```

Prerequisites required to run the code

To run any java based framework following software should be installed and configured

- Latest JDK and JRE should be installed
- Eclipse or any other editor supports java language programs
- Browser should be available
- Latest Browser driver should be available

Command to run the code

Ecllipse TestNG testing.xml➔RunAs➔TestNG Suite **Command** C:java –cp bin;jars//* org.testng.TestNG esting.xml
Ecllipse pom.xml➔RunAs➔Maven build pom.xml➔RunAs➔Maven clean pom.xml➔RunAs➔Maven install pom.xml➔RunAs➔Maven test **Command** C:\workspace\project\mvn clean **Command** C:\workspace\project\mvn install **Command** C:\workspace\project\mvn test

Report generation

since selenium does not provide any inbuilt report generation option so user has to write own code to get end result report in HTMl format for that we can go ahead with Extent Report .To crate extent report user need to have the appropriate jar file which support Extent report. Extent report code should be written in the java class file which is extended by all test case test script file.

1. Extent report should be initialise in @Before Suite annotation method and define path where it need to be save

2. Extent Report actual implementation code should be written in the @Before Method annotation method using getMethod of Method class so that before method execute before execution of @test method

3. Using ITestResult interface in @AfterMethod annotation methods pass and fails result can be capture

Class and Methods explanations

In framework three separate package are created to keep java class fields based on the usages

com.common

AutomationConstant interface which contains all the paths of folder and file

BasePage is java class file contains common method which is used in entire project which is extended by POM class to avoid re work writing same method

BaseTest is java class file which is having testing annotation which is required for launching specific browser and generating the report also all test case class should extends to BaseTest class

@Listeners(CustomListener.class) annotation is declared in BaseTest file which is part of ITestListener which capture all the failed screen shot

customListner is a java class file which implement ITestListener and override the onTestFailure method to capture failed screenshot

com.generic

Excel is an class file which is having code to read data from the data input file like excel files

Property file is java file which contains load method used to load file path and to getkeys

Utility file is java file which contains code to get screen shot and also date format code so that overwriting of failed image can be avoid and also every failed screen will be named with date and time

com.pages

Package contains all the page Object model java files

com.test

Package contains all the test case class files