TestNG Reporting

In this lesson, you'll understand TestNG Reporting.

WE'LL COVER THE FOLLOWING

- List of default TestNG reports
- Custom reporters

List of default TestNG reports

TestNG adds a few basic reports of the test run by default. The following are some reporters:

- org.testng.reporters.SuiteHTMLReporter generates a HTML reporter for suites.
- org.testng.reporters.FailedReporter generates *testng-failed.xml* containing only the failed tests.
- org.testng.reporters.XMLReporter generates summary of test output in xml format.
- org.testng.reporters.EmailableReporter2 generates a single-page HTML report *emailable-report.html* of the test results.
- org.testng.reporters.JUnitReportReporter generates Junit test output xml for each of the test suites.

Custom reporters

We can have our own reporters by implementing org.testng.IReporter.

Sample Implementation of IReporter for generating a summary report of the test run:

package com.example;

```
Import lava.io.tile;
import java.io.FileWriter;
import java.io.IOException;
import java.io.Writer;
import java.text.DecimalFormat;
import java.util.List;
import org.testng.IReporter;
import org.testng.ISuite;
import org.testng.ITestContext;
import org.testng.xml.XmlSuite;
public class SummaryReport implements IReporter {
   private DecimalFormat decimalFormat = new DecimalFormat("00.##");
   @Override
   public void generateReport(List<XmlSuite> xmlSuites, List<ISuite> suit
es, String outputDirectory) {
      File file = new File(outputDirectory, "summary.html");
      try (Writer writer = new FileWriter(file)) {
          writer.write("<html><body>");
          String title = "
ow;border:1px dotted black;width:80%;border-collapse:collapse;'><caption s
tyle='margin: 1em; font-weight: bolder'>Test Execution Summary Report</cap</pre>
tion>";
          writer.write(title);
          writer.write(
                 "Suite Name
Total
px;'align='center'>PassedFaile
dSkipped
g:3px; 'align='center'>% Tests Passed<th style='padding:3px; 'align='ce
nter'>Total Execution Time (Sec)");
          for (ISuite suite : suites) {
             suite.getResults().forEach((k, v) -> {
                ITestContext context = v.getTestContext();
                Integer passed = context.getPassedTests().size();
                Integer failed = context.getFailedTests().size();
                Integer skipped = context.getSkippedTests().size();
                Integer total = passed + failed + skipped;
                Double execTime = (context.getEndDate().getTime() - co
ntext.getStartDate().getTime()) * 0.001;
```

```
if (total > 0) {
                 try {
                    String percent = decimalFormat
                          .format((passed.doubleValue() / total.
doubleValue()) * 100.0D);
                    writer.write(String.format(
                          "%s
%s
r'>%s%s<td style='text-align: cen
ter'>%s%s<td style='text-align: c
enter'>%s",
                          suite.getName(), total, passed, failed
, skipped, percent,
                          decimalFormat.format(execTime)));
                 } catch (IOException e) {
                    e.printStackTrace();
              }
           });
        writer.write("</body></html>");
     } catch (IOException ex) {
        ex.printStackTrace();
     }
     System.out.println("writing summary report to " + file.getAbsolute
Path());
  }
```

This custom implementation of IReporter needs to be added to *testng.xml* like:

```
<listeners>
    <listener class-name="com.example.SummaryReportListener" />
</listeners>
```

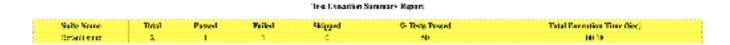
Or in test class like:

```
@Listeners({ com.example.SummaryReportListener.class })
public class TestClass {}
```

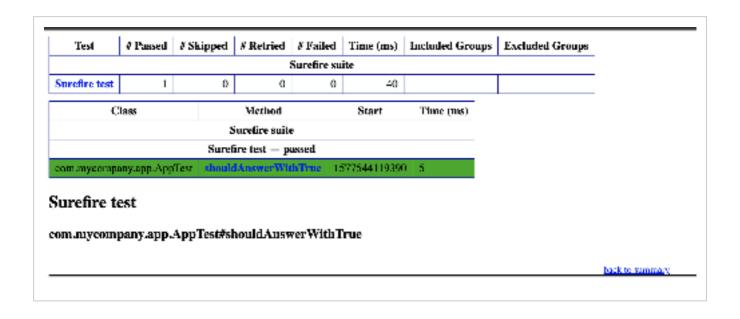
Adding listeners is already discussed in the TestNG Listener lesson.

The default test output folder is \${user.dir}/test-output.

Custom Reporter produces HTML report *summary.html* like below:



Below is the sample of *emailable-report.html*:



In this lesson, we learned about reporters in TestNG. In the next lesson, you'll learn about integrating the Allure reporting framework.