AUTOMATION TESTING FRAMEWORK FOR LUMINOUS LMS

INTRODUCTION
WHAT LIBRARIES ARE USED

- Java v.1.8.0_45

- Maven v.3.5.0

- Selenium WebDriver v.2.0

- JUnit v.4.12

- JBehave v.1.6.0

- Serenity BDD v.1.1.26

INTRODUCTION

MAVEN

- Lets you get your package dependencies easily

- Forces you to have a standard directory structure

- Allows you to create project skeleton for a Serenity JBehave project with simple command:

  mvn archetype:generate -Dfilter=serenity

INTRODUCTION
SELENIUM WEB DRIVER

- Is a suite of tools that allows Java code to interact with browser and perform basic actions like click, type text, swipe etc.

- Supports multiple browsers such as Firefox, Chrome, Safari, or Microsoft Edge

- Deploys on Windows, Linux, and OS X platforms

- Is fully implemented and supported in Java, C#, Ruby, JavaScript and Python

INTRODUCTION

JUNIT

- Is a unit testing framework for the Java programming language

- Provides set of methods that allows to compare expected result with actual result after test execution. E.g., *assertEquals()*, *assertTrue()*, *assertNotNull()*

- Provides annotations to identify test methods, such as *@Test*, *@BeforeTest*, *@AfterSuite*

INTRODUCTION

JBEHAVE

- Is a framework for Behaviour-Driven Development (BDD)

Behaviour-Driven Development is about implementing an application by describing it from the point of view of its stakeholders

- JBehave library allows to create easy-readable test scenarios in *Given-When-Then* format and link these scenarios with Java code

- In this way JBehave makes development practices more accessible and intuitive to newcomers and experts alike

INTRODUCTION
JBEHAVE (CONTINUATION)

This is the example of story and its test scenario that will be parsed by JBehave library

Narrative:

As an Office Admin

I want to be able to log into the system

So that I am able to come to my landing (Overview) page

Scenario: Login as valid user with valid credentials

Given user is on Home Page

When user enters valid username 'offadmin@100.com' and valid password 'aaaaaa'

And user submits the form

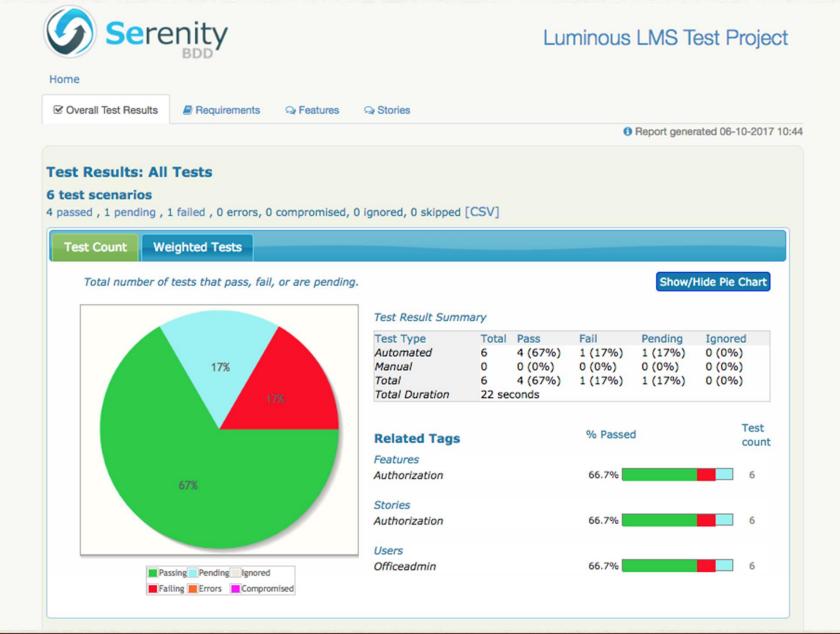Then user should see Landing Page

INTRODUCTION
STORY REPRESENTATION IN JAVA

```java
package com.luminous.steps.authorization;

import net.thucydides.core.annotations.Steps;

public class OfficeAdminAuthorizationSuccess {

    @Steps
    OfficeAdmin admin;

    @Given("user is on Home Page")
    public void user_is_on_home_page() {
        admin.is_on_home_page();
    }

    @When("user enters valid username '$username' and valid password '$password'")
    public void user_enters_valid_credentials(String username, String password) {
        admin.fill_form(username, password);
    }

    @When("user submits the form")
    public void user_submits_form() {
        admin.submit_form();
    }

    @Then("user should see Landing Page")
    public void user_should_see_landing_page() {
        admin.should_see_landing_page();
    }
}
```

INTRODUCTION

SERENITY BDD

- Produces rich meaningful test reports (or "living documentation") that not only report on the test results, but also what features have been tested

- Maps your automated tests back to your requirements

- Shows how much of your application is actually being tested

- Takes screenshot after each test step and links screenshots to the test execution report

TEST EXECUTION REPORT
POSSIBLE TEST EXECUTION RESULTS

THANK YOU FOR YOUR ATTENTION