

API Testing With Serenity BDD

- **What Serenity BDD?**
 - Serenity BDD is an open source test automation framework.
 - It helps you to write better structured, more maintainable automated acceptance test.
 - It also produced reach meaning full test reports that not only report test result but also it tells you what feature have been tested.
 - Formally known as Thucydides (until Nov 2014). Serenity is adopted by many others organisation due to several of out of box features it offers.
 - <http://www.thucydides.info/#/>

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- **Why use Serenity BDD?**
 - It is integrated to work with many popular testing libraries like JUNIT, SELENIUM2, APPIUM, JBEHAVE, CUCUMBER etc.
 - It also provide out of box feature for UI automation (i.e. WebDriver Handling, Synchronisation, Screenshots. Parallel testing, Data Driven Testing, Cross browser testing, logging etc.)
 - It is integrated with Rest Assured to create API test automation without any hassle.
 - It provides “AMAZING” reports!! (Reports are very good and lots of details provided in reports)

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- **Property Reader Using Singleton Design Pattern**

"The singleton pattern is a design pattern that restricts the instantiation of a class to one object."

Rules for Implementing singleton design pattern

1. Make the constructor private
2. Create a static method to get the instance
3. Create a static member variable

- **Data Driven test model using the feature provided by the serenity BDD framework**

```
@UseTestDataFrom("testdata/studentinfo.csv")  
@RunWith(SerenityParameterizedRunner.class)
```

- **Learn how to speed up a data driven test using the @Concurrent Annotation in Serenity BDD framework**

```
@Concurrent(threads = "4x")
```

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- **Grouping Tests**

"@WithTag and @WithTags"

```
@WithTag("studentfeature:NEGATIVE")  
  
@WithTags(  
    {  
        @WithTag("studentfeature:SMOKE"),  
        @WithTag("studentfeature:POSITIVE")  
    }  
)
```

- **Execute tagged tests in Maven**

Single Tag : -Dtags=studentfeature:SMOKE

Multiple Tags :

-Dtags = "studentfeature:SMOKE, studentfeature:POSITIVE"

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- **Cucumber with Serenity BDD**

Creating Scenario and Step Definitions

Creating Scenario Outline

- **Execute tagged tests in Maven**

```
"-Dcucumber.options=--tags @SMOKE"
```