API Testing Framework

- **Purpose**

automatically, save time for manual testers to do more complex test cases and ad-hoc/explorer testing.

- **Used Tools**

Our test is written in BDD style, using Jbehave.

1. Write story

Plain text

Scenario: A trader is alerted of status

Given a stock and a threshold of 15.0
When stock is traded at 5.0
Then the alert status should be OFF
When stock is traded at 16.0
Then the alert status should be ON

2. Map steps to Java

POJO

```java
public class TraderSteps {
    private TradingService service;    // Injected
    private Stock stock; // Created

    @Given("a stock and a threshold of $threshold")
    public void aStock(double threshold) {
        stock = service.newStock("STK", threshold);
    }
    @When("the stock is traded at price $price")
    public void theStockIsTraded(double price) {
        stock.tradeAt(price);
    }
    @Then("the alert status is $status")
    public void theAlertStatusIs(String status) {
        assertThat(stock.getStatus().name(), equalTo(status));
    }
}
```
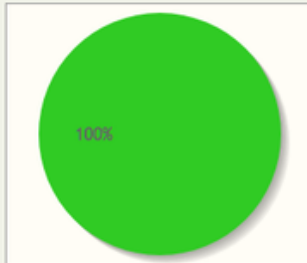
Using Serenity framework to generate the report.

☑ Overall Test Results   📖 Requirements

🛈 Report generated 11-04-2018 13:24

Requirements Overview

Requirement Type	Total	Pass	Fail	Pending	Ignored	Untested
Acceptance Criteria (tests)	42	42	0	0	0	

Test Result Summary

Test Type	Total	Pass	Fail	Pending	Ignored
Automated	42	42 (100%)	0 (0%)	0 (0%)	0 (0%)
Manual	0	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Total	42	42 (100%)	0 (0%)	0 (0%)	0 (0%)

■ Passing ■ Pending
□ Ignored ■ Failing
■ Errors

Acceptance Tests (42)

Show 25 entries   Search:

Acceptance Tests	Steps	Stable	Duration (seconds)
✓	2	🚧	0.36
✓	2	🚧	0.35
✓	2	🚧	0.32
✓	2	🚧	0.32
✓	2	🚧	0.31
✓	2	🚧	0.94
✓	2	🚧	1.84
✓	2	🚧	0.35
✓	2	🚧	0.36
✓	2	🚧	0.96
✓	2	🚧	0.96
✓	2	🚧	0.43
✓	2	🚧	0.31
✓	2	🚧	0.32
✓	2	🚧	0.33
✓	2	🚧	0.33
✓	2	🚧	5.15

Using Retrofit as an Adapter to perform service calls and get its response to verify the returned data.

- **How it works**