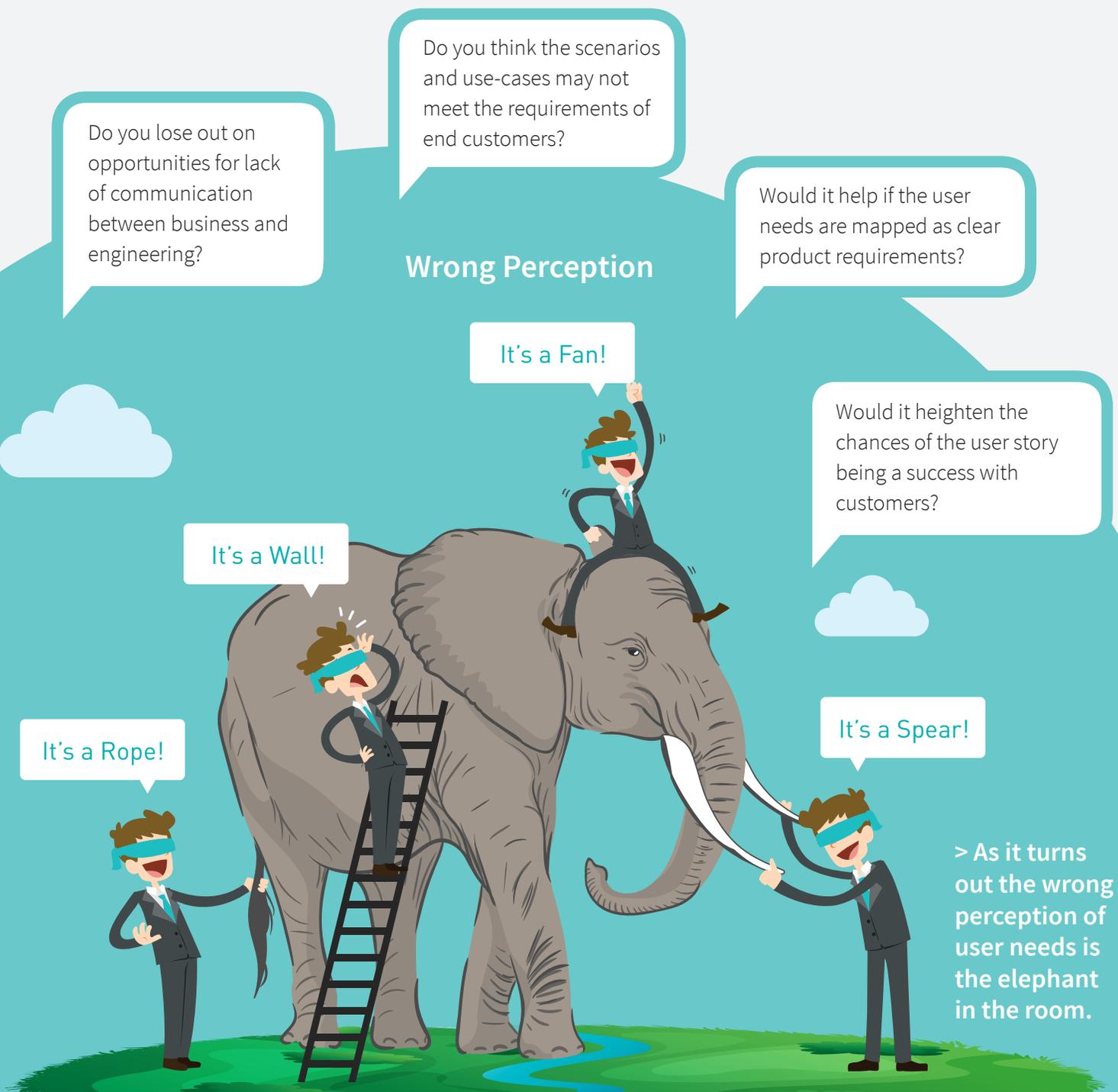


How Zephyr Enterprise supports BDD for better customer experiences?



What is BDD and why do we need it?

BDD is a fancy term used for Behavior Driven Development and testing.

BDD is a simple syntax in which a developer refers to write code and the QA tester designs test cases

BDD WAS BORN FROM TWO BASIC NEEDS IN THE TESTING DOMAIN:

- ▶ A shift in the thought process from thinking about “tests” to thinking about “behavior”.
- ▶ The need for a method where business users can sketch use cases without having to understand the technical language associated with translating them into test cases.

Understandingly, the market demanded tools which could create test cases from business scenarios into plain English language. Companies started to come out with automation tools like Cucumber which provide automation with testing scripts from simple English language such as, “If the battery is dying, then check if the cells are also dying.”

ZEPHYR’S PERSPECTIVE ON BDD TO HELP MEET THESE NEEDS

At Zephyr, we believe the challenge of clearly defining user needs and sketching use cases without writing code can easily be solved in six ways.

- ▶ Following the 5 Why’s principle to understand real user needs and the purpose of the user story. This will help uncover the “real” problem.

- ▶ Having a 3 Amigos Session- Business Teams (Product Team and Customer Facing Team), Development Team and Testing Team come together to define and agree on the user story.
- ▶ Each amigo brings a unique perspective and understanding of the user story to the table:
 - Business Amigo thinks about what problem or user need we are trying to solve. The application behaviour is explained in Gherkin language (Listing out User needs in plain English which can be used for coding in format Given-When-Then-And).
 - Developer Amigo thinks about the technical feasibility and how a solution can be provided for a problem.
 - Tester Amigo thinks about meeting the acceptance criteria and mitigating the potential risks and impacts.
- ▶ Using the BDD framework to translate Gherkin language to developer’s language like Java, Python, Ruby etc.
- ▶ Using Cucumber which helps you run automated test cases for the scenarios identified. Both developers and testers can channelize this platform.
- ▶ Product Teams certify the acceptance criteria for the user stories to be shipped to customer.

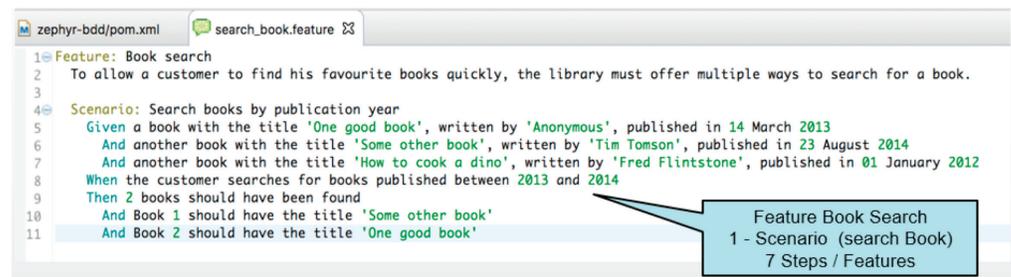
How does Zephyr provide BDD?

Let's look at a simple example of searching a book from the library quick.

1

Writing a scenario in Gherkin Language and importing it in Zephyr application

2



```

1 Feature: Book search
2   To allow a customer to find his favourite books quickly, the library must offer multiple ways to search for a book.
3
4 Scenario: Search books by publication year
5   Given a book with the title 'One good book', written by 'Anonymous', published in 14 March 2013
6     And another book with the title 'Some other book', written by 'Tim Tomson', published in 23 August 2014
7     And another book with the title 'How to cook a dino', written by 'Fred Flintstone', published in 01 January 2012
8   When the customer searches for books published between 2013 and 2014
9   Then 2 books should have been found
10    And Book 1 should have the title 'Some other book'
11    And Book 2 should have the title 'One good book'
  
```

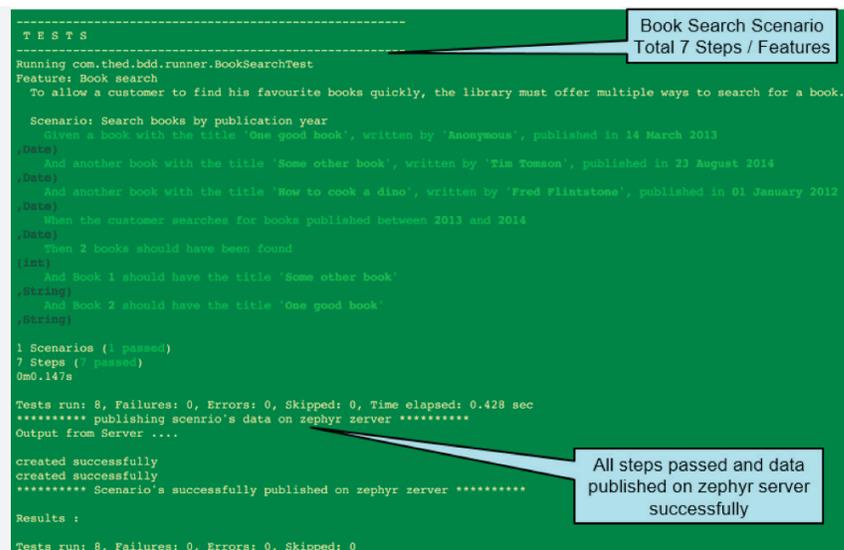
Feature Book Search
1 - Scenario (search Book)
7 Steps / Features

You can next Configure Zephyr Server and Access key inside Zephyr

3

Zephyr provides an out-of-box plugin, which runs BDD scripts through MVN

In an analogy, Maven works like a food processor where different units (called plugins) are used to accomplish different tasks. For example-- compiling, running a script etc.



```

-----
T E S T S
-----
Running com.thed.bdd.runner.BookSearchTest
Feature: Book search
  To allow a customer to find his favourite books quickly, the library must offer multiple ways to search for a book.

Scenario: Search books by publication year
  Given a book with the title 'One good book', written by 'Anonymous', published in 14 March 2013
  .Data)
  And another book with the title 'Some other book', written by 'Tim Tomson', published in 23 August 2014
  .Data)
  And another book with the title 'How to cook a dino', written by 'Fred Flintstone', published in 01 January 2012
  .Data)
  When the customer searches for books published between 2013 and 2014
  .Data)
  Then 2 books should have been found
  (Info)
    And Book 1 should have the title 'Some other book'
  .String)
    And Book 2 should have the title 'One good book'
  .String)

1 Scenarios (1 passed)
7 Steps (7 passed)
0m0.147s

Tests run: 8, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.428 sec
***** publishing scenario's data on zephyr server *****
Output from Server ....

created successfully
created successfully
***** Scenario's successfully published on zephyr server *****

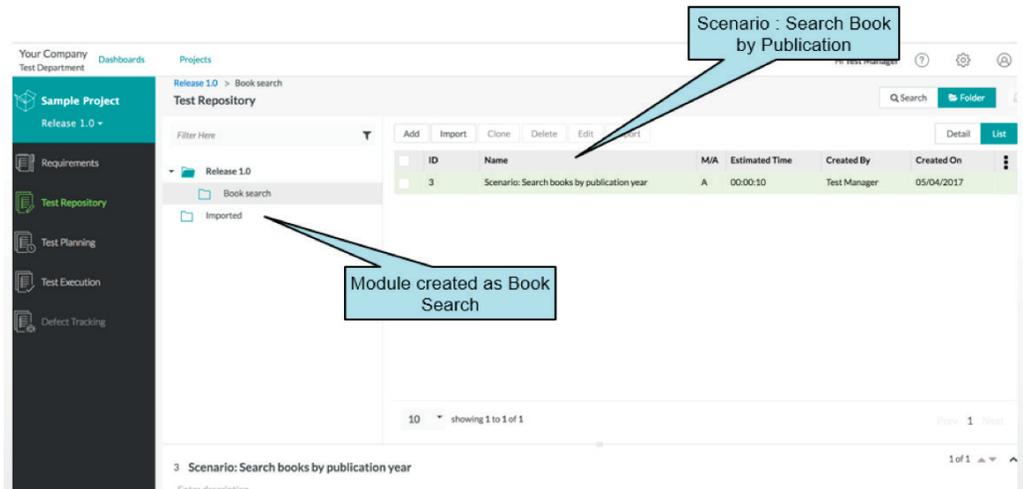
Results :

Tests run: 8, Failures: 0, Errors: 0, Skipped: 0
  
```

Book Search Scenario
Total 7 Steps / Features

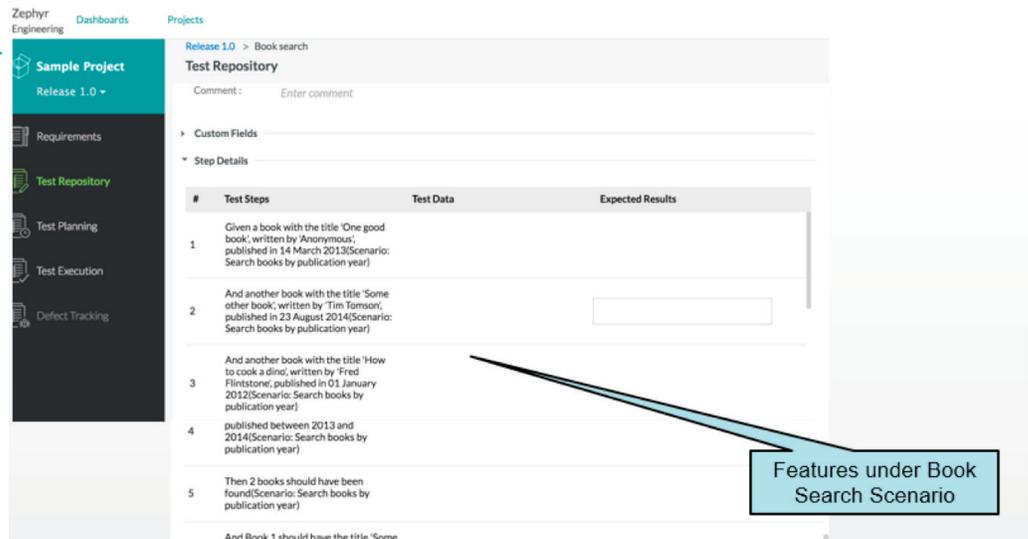
All steps passed and data published on zephyr server successfully

4



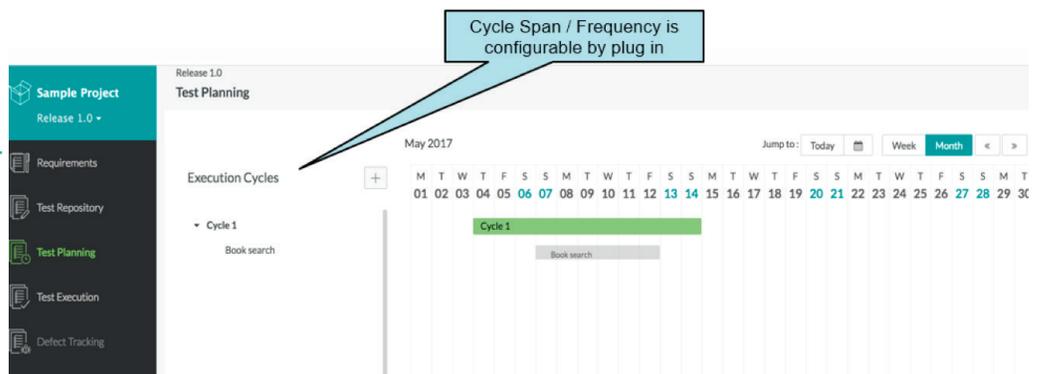
Scenario has been created as a Test case in Zephyr

5



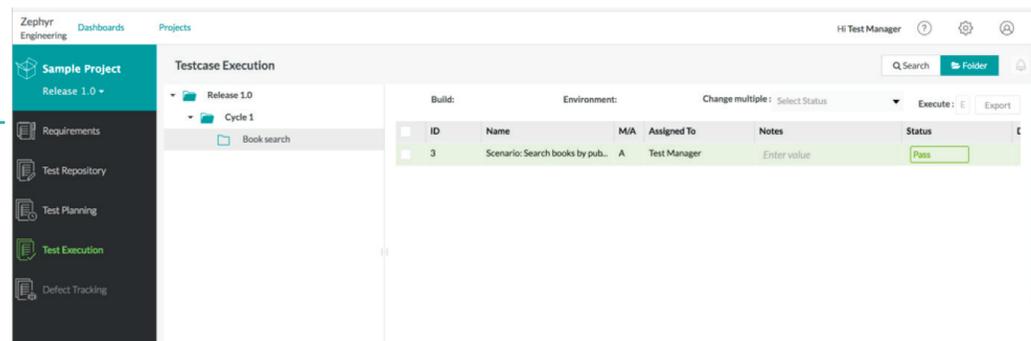
Scenario is added as Test Steps

6



BDD Cycle is planned utilizing Zephyr Test Planning

7



Showing Result of Scenario executed by MVN

How does Zephyr differentiate from the market?

Aside from following the 5 Why's and having a 3 Amigos meeting, you can also add more value to your business and BDD framework with these features found in Zephyr Enterprise:

- ▶ **Zephyr supports parameterized behavior execution**
- ▶ **zAutomation framework passes different data points to those scenarios**
- ▶ **Automate test cases by utilizing zAutomation framework by passing different data points to those scenarios**

It doesn't end there. Zephyr can help add value to your business by organizing your test cases in our application and more importantly getting reports and metrics on those automated test cases. In Zephyr Enterprise:

- ▶ **With a simple click of a button, the test cases can be pulled into the application**
- ▶ **Test cycles can be automated by simple command**
- ▶ **Results and Metrics are published and available in real-time using powerful Zephyr gadgets and dashboards**



By leveraging the perspective of stakeholders, utilizing the Cucumber Framework for test automation, and providing comprehensive metrics and dashboard reporting, Zephyr Enterprise will add value to your business and help you address customer needs more efficiently and effectively.



Zephyr is a leading provider of quality management solutions, powering intelligent DevTestOps for more than 11,000 global customers across 100 countries. Project teams and enterprises of all sizes use Zephyr's products to enable continuous testing throughout their entire software delivery pipeline to release higher quality software, faster. Zephyr is headquartered in San Jose, CA with offices in King of Prussia, PA, Europe and India.

For more information, please visit www.getzephyr.com