
BDD

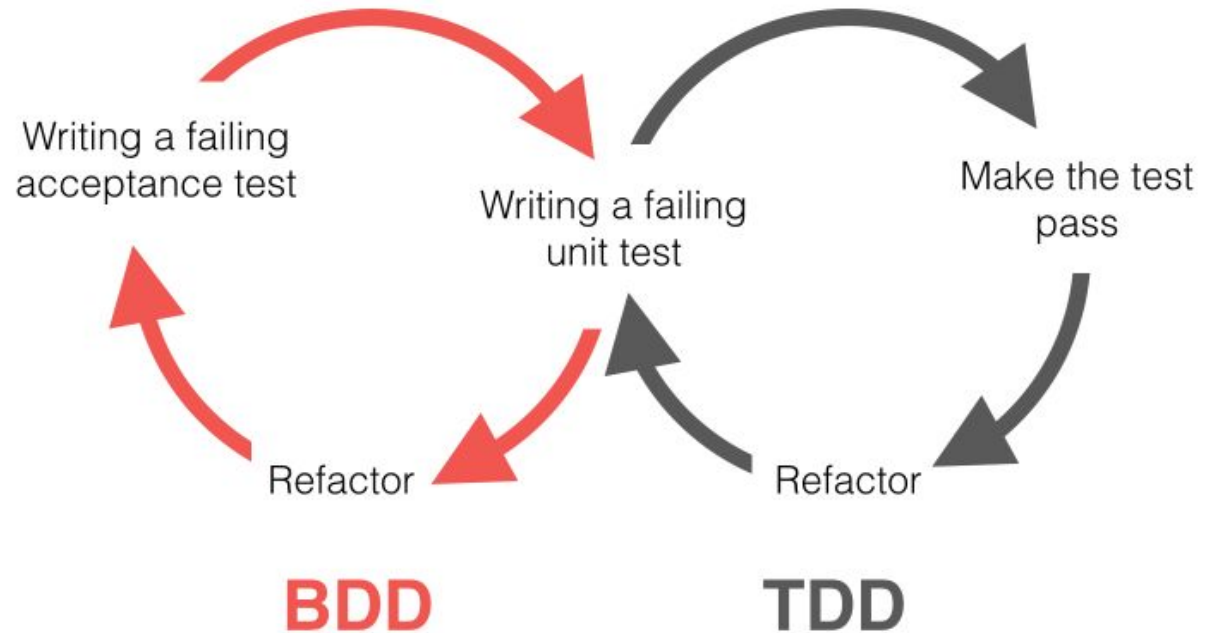
Behavior Driven Development (BDD):

Is a software development process where teams create simple steps on how an application **should** behave from a **user's** perspective.

A quick aside... BDD vs. TDD

- **What you're testing**
 - > BDD: Test from the end-user's standpoint
 - > TDD: Focus on testing smaller pieces of functionality in isolation
 - **How they work together**
 - > Need a good TDD base for success with BDD
 - > TDD -> ensures code quality
 - > BDD -> ensure use-cases work
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TDD and BDD Cycles



BDD tools

- **Selenium WebDriver**

is a collection of open source APIs which are used to automate the testing of a web application. Selenium WebDriver tool is used to automate web application testing to verify that it works as expected. It supports many browsers such as Firefox, Chrome, IE, and Safari.

- **Cucumber**

Cucumber reads executable specifications written in plain text and validates that the software does what those specifications say. The specifications consists of multiple examples, or scenarios.

In order for Cucumber to understand the scenarios, they must follow some basic syntax rules, called **Gherkin**

what is Gherkin

BASIC GHERKIN STRUCTURE FOR ACCEPTANCE CRITERIA

SCENARIO:

- Overall behavior

GIVEN

- Context

WHEN

- Action

THEN

- Expected Result
-

what is Gherkin

Before Gherkin

We would like to encourage new users to buy in our shop.
Therefore we offer 10% discount for their first order.

```
public void CalculateDiscount(Order order)
{
    if (order.Customer.IsNew)
        order.FinalAmount =
            Math.Round(order.Total * 9/10);
}
```

Register as "bart_bookworm"
Go to "/catalog/search"
Enter "ISBN-0955683610"
Click "Search"
Click "Add to Cart"
Click "View Cart"
Verify "Subtotal" is "\$33.75"

After Gherkin

We would like to encourage new users to buy in our shop.
Therefore we offer 10% discount for their first order.

Given the user has not ordered yet

When the user adds a book with the price of EUR 37.5 into the shopping cart

Then the shopping cart sub-total is EUR 33.75.

Writing scenario...

At the very beginning of a feature file, the title of action as **feature**. Then it is optional to add a **description** to the feature. It takes the following format:

```
Feature: feature name
```

```
As a [role]
```

```
I want [feature]
```

```
So that [benefit/business reason]
```

The acceptance criteria for a feature is the scenarios in it. Feature is said to be successfully passed only if all the scenarios in that feature are successful. A scenario takes the following format:

```
Scenario: title
```

```
Given context
```

```
When event
```

```
Then outcome
```

```
And/But more of the same ...
```

Conclusion

Starting with the end in mind.

- TDD focuses on the developer's view on how an software should work
- BDD focuses on the users' view on how the application should behave

Interesting:

Test Driven Development vs Behavior Driven Development

https://www.youtube.com/watch?v=Bq_oz7nCNUA
