

Java: BDD Fundamentals

INTRODUCING BDD



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Overview



Origin and philosophy of BDD

Adding business value to the application

The communication within a project

BDD motivation

Working with the requirements analysis

- Discovering and understanding features
- From features to user stories
- From user stories to acceptance criteria



TDD Limitations



Test



Write code



Refactor



Test



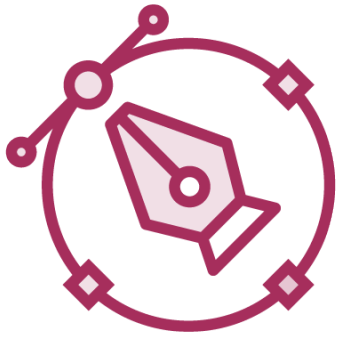
Write code



Refactor



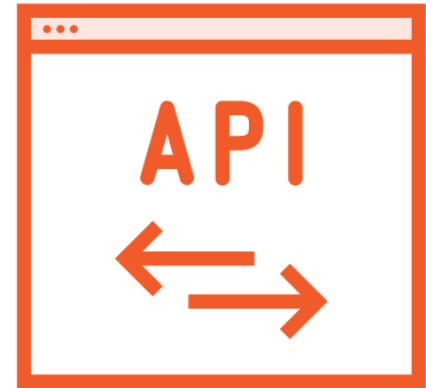
TDD Limitations



Design



Write tests



Change of the API

Is your application addressing
the business needs?

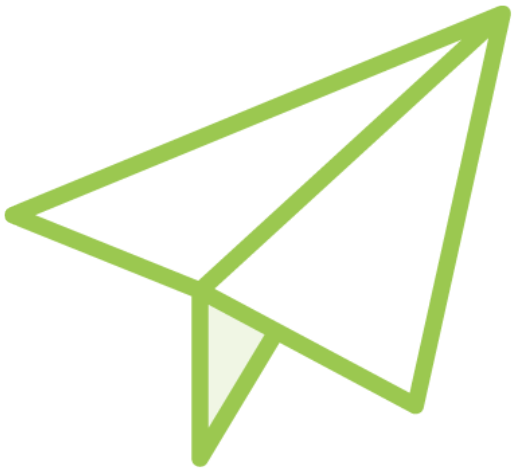


Behavior Driven Development

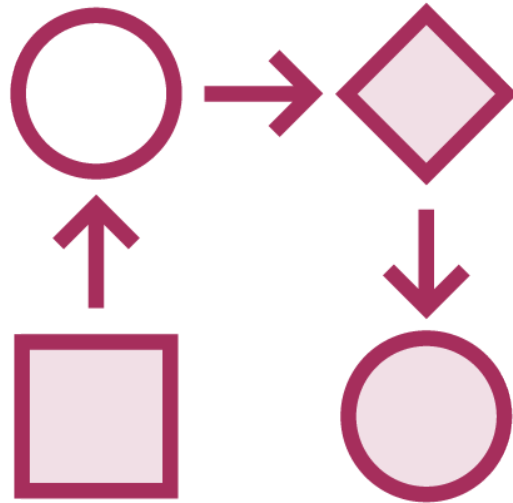
A methodology for developing IT solutions that directly satisfy business requirements.



Origins of BDD



Project



Development



Failure



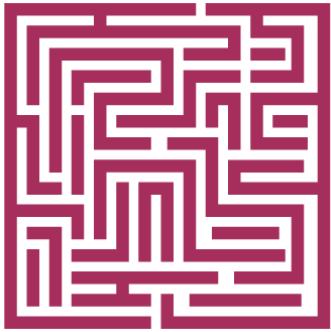
Goals



Software Business Value



What Gives Business Value to the Software?



Uncertainty



Working features



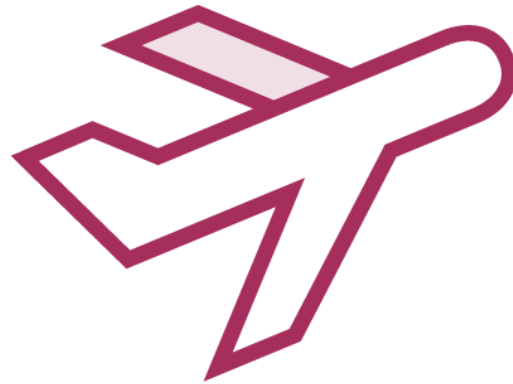
Feature



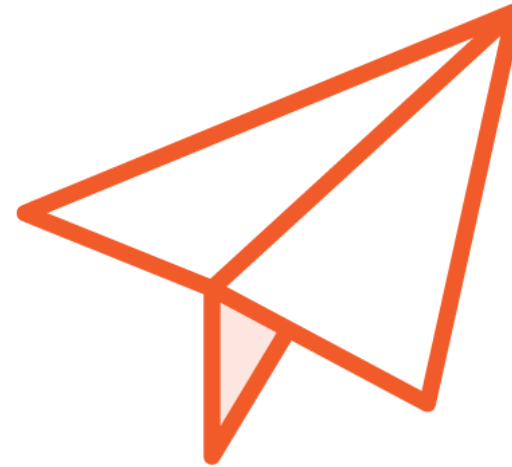
Adding Business Value to the Application



Customer



Choose flight



Change flight



Seat

Communication within a Project



Customer



Business
Analyst

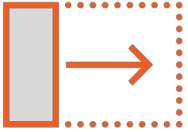


Developer



Tester

Introducing a New Feature



Features – high level requirements



Break the feature into stories



Acceptance criteria





Given the flights operated by company X

When I want to find the quickest route
from Bucharest to New York on May 15 20...

Then I will be provided the route Bucharest
- Frankfurt - New York, with a known
duration



BDD Motivation

TDD



BDD



From Requirements Analysis to Acceptance Criteria



Practical Case: Flights Management Company

**Flights operation
company**

**Requirements
from customer**

**Describing
features**

**Breaking features
into stories**

**Defining
acceptance
criteria**



Requirements Analysis



Clear understanding

Main goals behind the application

Increase sales by providing higher quality overall flight services

Requirements:

- Choose flights
- Change flights
- Optimal route

Describing Requirements



As a passenger

I want to know the flights for a given destination within a given period of time

So that I can choose the flight(s) that suit(s) my needs

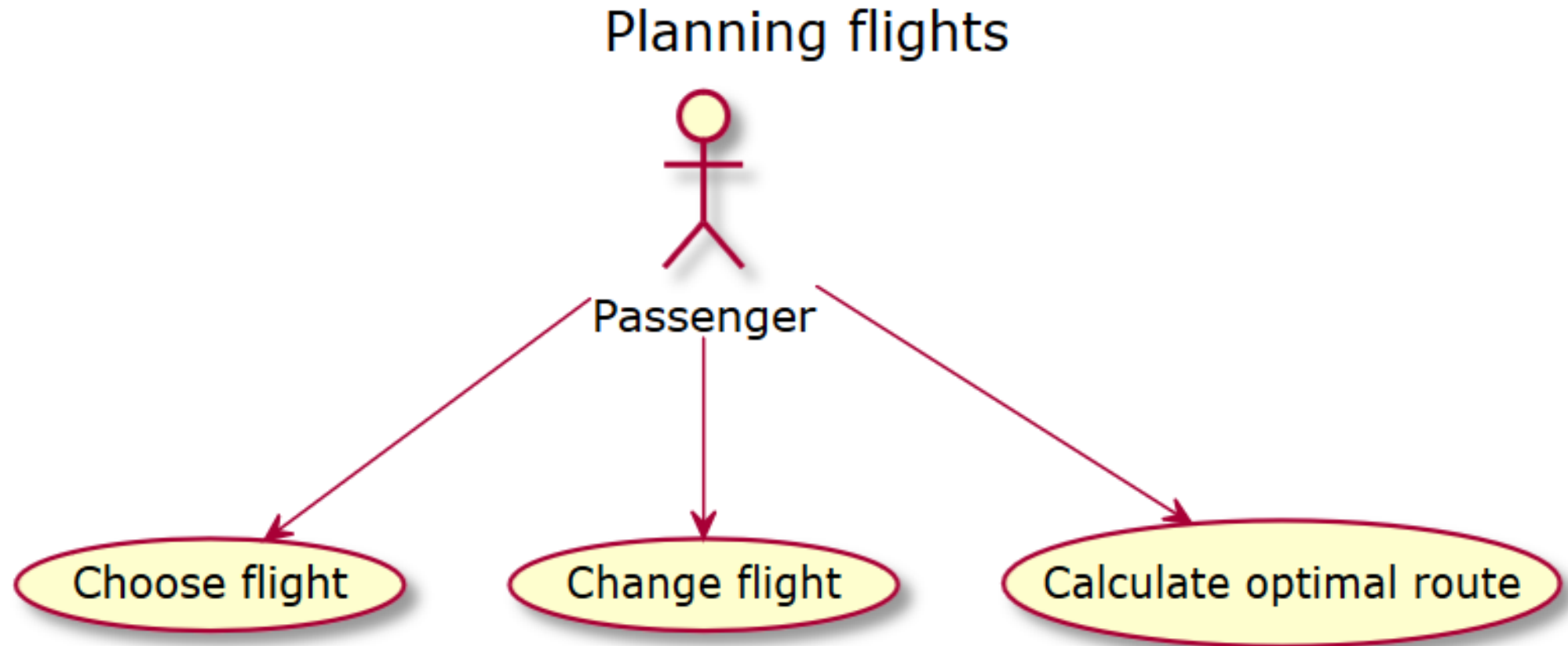
As a passenger

I want to be able to change my initial flight(s) to different one(s)

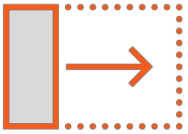
So that I can follow the changes of my schedule



Use Cases: Planning Flights



Breaking features down into stories



Each story - a different facet of the problem



Too large to be implemented at once



Feedback on the functionality

Breaking Features down into Stories

Find direct flights

**Find alternatives of flights
with stopovers**

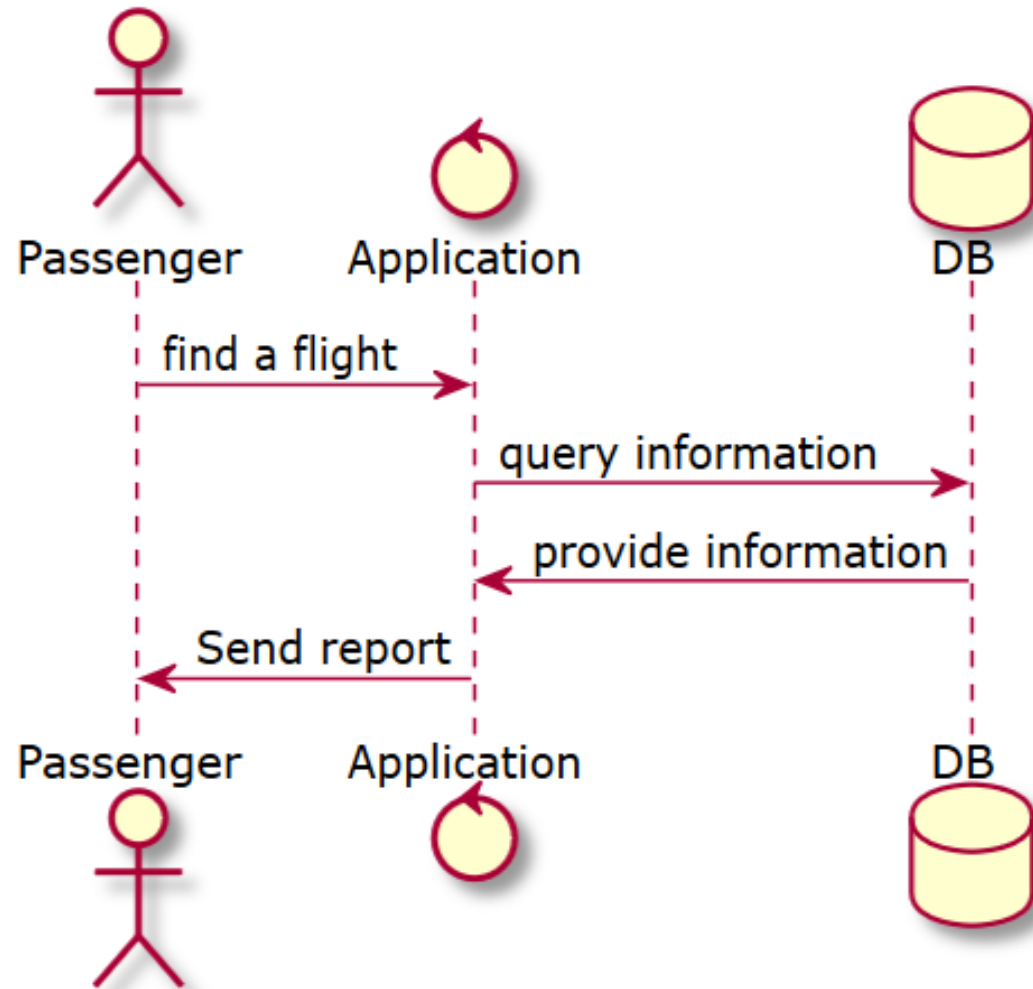
Find one way flights

Find there and back flights

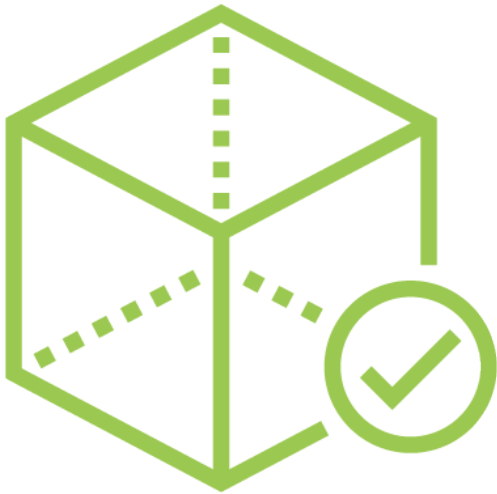


Use Cases: Planning Flights

Find flights



Acceptance Criteria



Definition: Given/When/Then

- Given <a context>
- When <something happens>
- Then <some result is expected>

Given the flights operated by the company

When I want to travel from Bucharest to London next Wednesday

Then I should be provided 2 possible flights: 10:35 and 16:20



Summary



BDD

- Origin
- Philosophy
- Motivation
- The right software
- Communication

Requirements analysis

Features

User stories

Acceptance criteria

