

Introducing Cucumber



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Overview



Introduction to Cucumber

Gherkin, features, scenarios, annotations

Install and configure Cucumber

Move the existing application to BDD using Cucumber

Add new features in BDD style, using Cucumber



What are Cucumber and
Gherkin and what are they
good for?



Cucumber Main Capabilities

Specifications in plain English

Multiple examples or scenarios

Each scenario is a list of steps

Verifies the software conforms with the specification



Gherkin Main Capabilities

Simple set of grammar rules

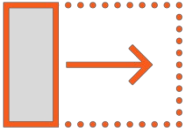
Unambiguous executable
specification

Automated testing

Documents how the system
actually behaves



Automated Acceptance Tests



Originates from XP and TDD



Different from unit tests, focus on behavior



Express what the software needs to do



Automated Acceptance Test Example

Feature: Passengers Policy

The company follows a policy of adding and removing passengers, depending on the passenger type and on the flight type

Scenario: Economy flight, usual passenger

Given there is an economy flight

When we have a usual passenger

Then you can add and remove him from an economy flight



Cucumber Installation and Configuration



Demo



Flights management application

Rewritten tests to simulate BDD using JUnit 5 facilities and annotations

Introduce Cucumber dependencies in the Maven configuration

Create first feature and generate the skeleton of the Cucumber tests

Move all existing tests to Cucumber

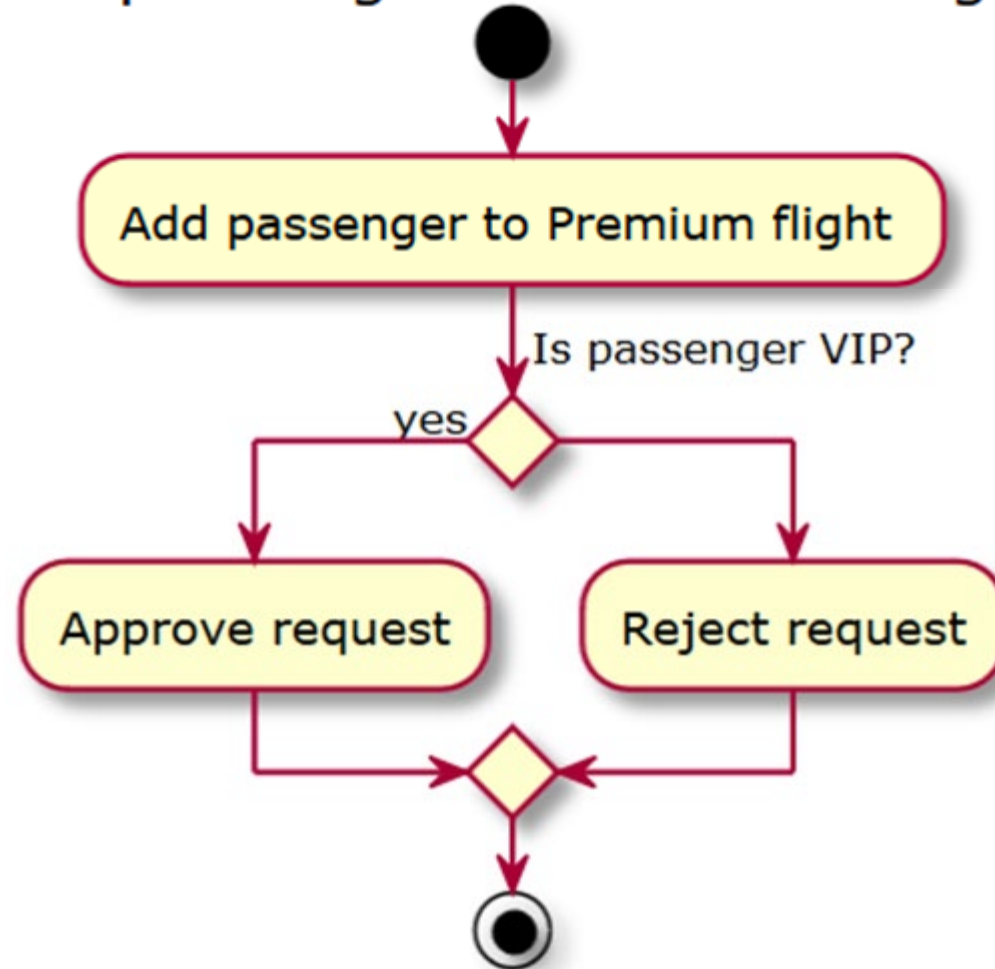


Adding a Premium Flight with Cucumber



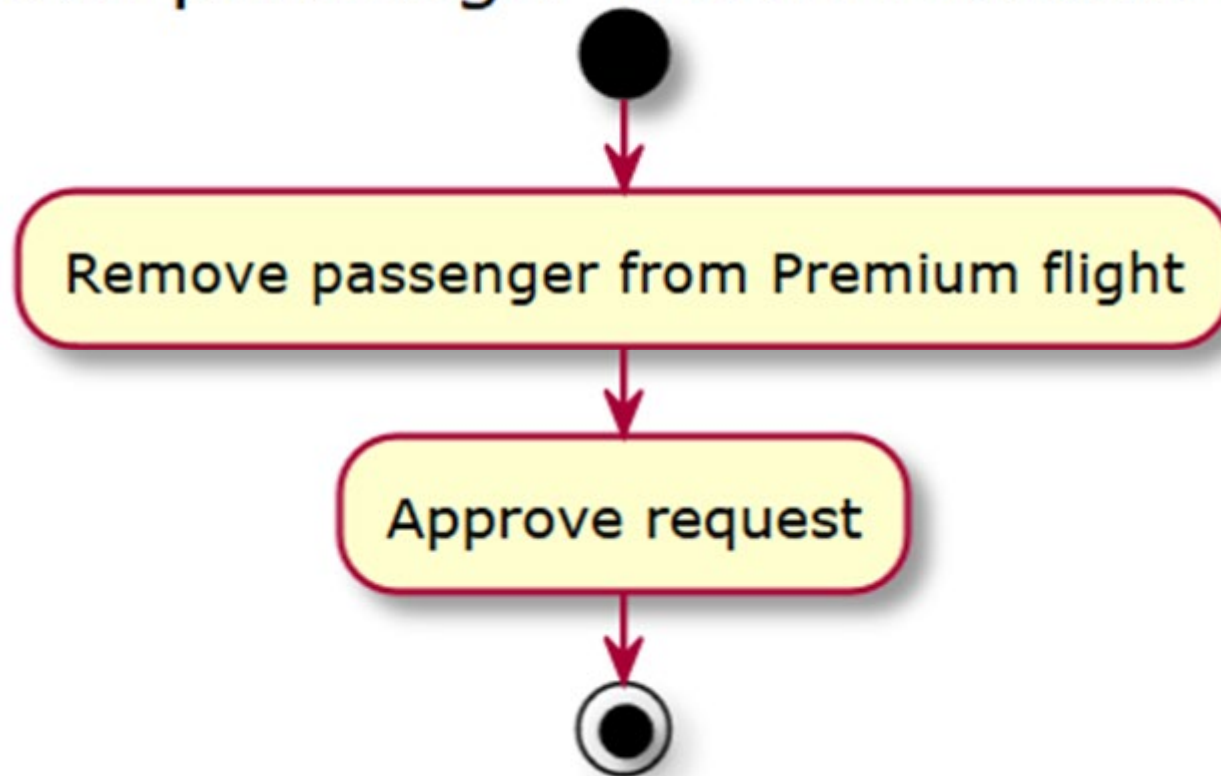
Adding Passenger New Business Logic

Add passenger to Premium flight



Removing Passenger New Business Logic

Remove passenger from Premium flight



Demo



Define the scenarios of using the Premium Flight

Write the Cucumber tests that describe the scenarios

Fix the tests by implementing the new feature

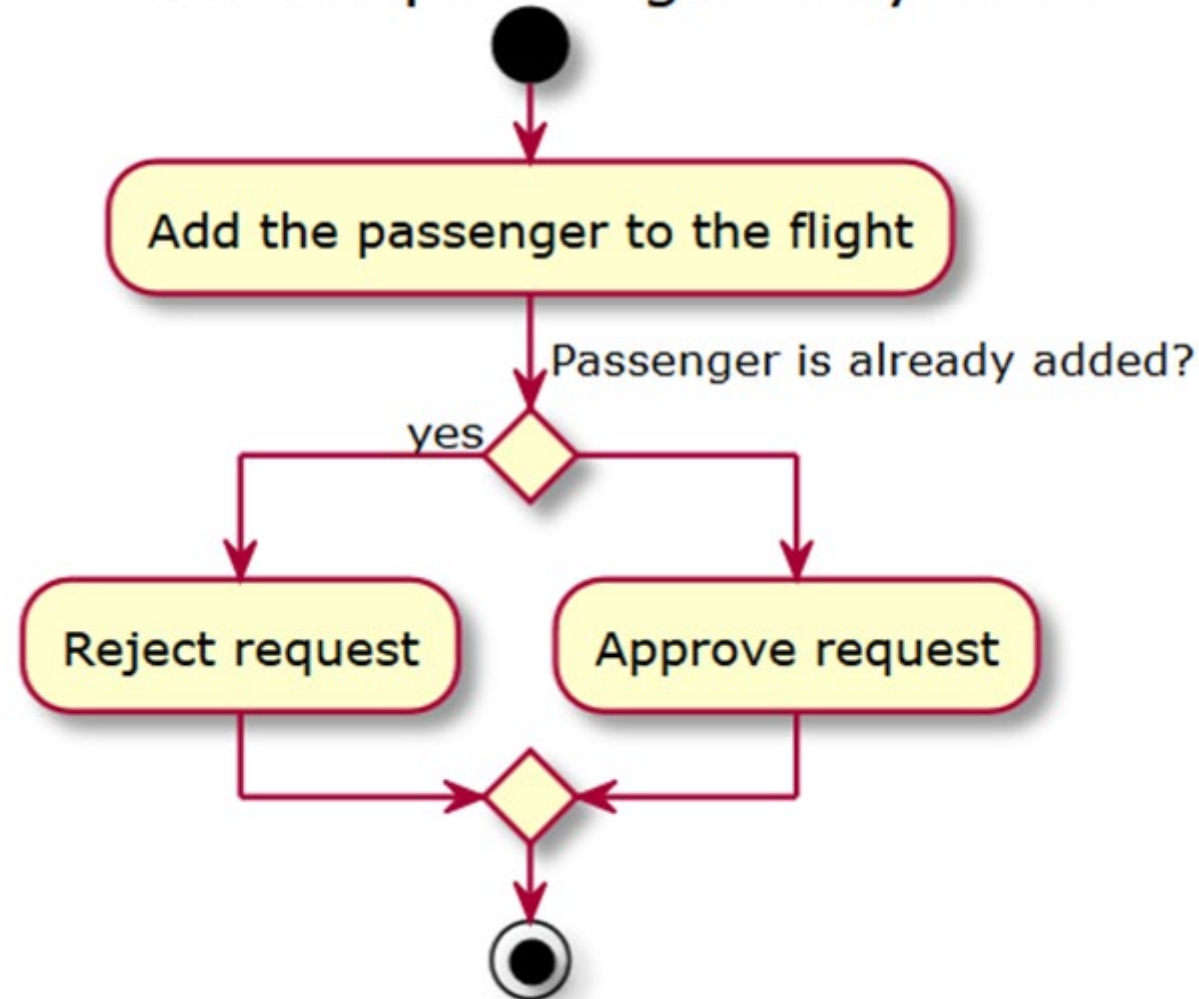


Adding a Passenger Only Once



Adding Passenger Only Once

Add the passenger only once



Demo



Define the scenarios of adding a passenger more than once

Generate the Cucumber tests that describe the scenarios

Effectively add the code that implements the restriction

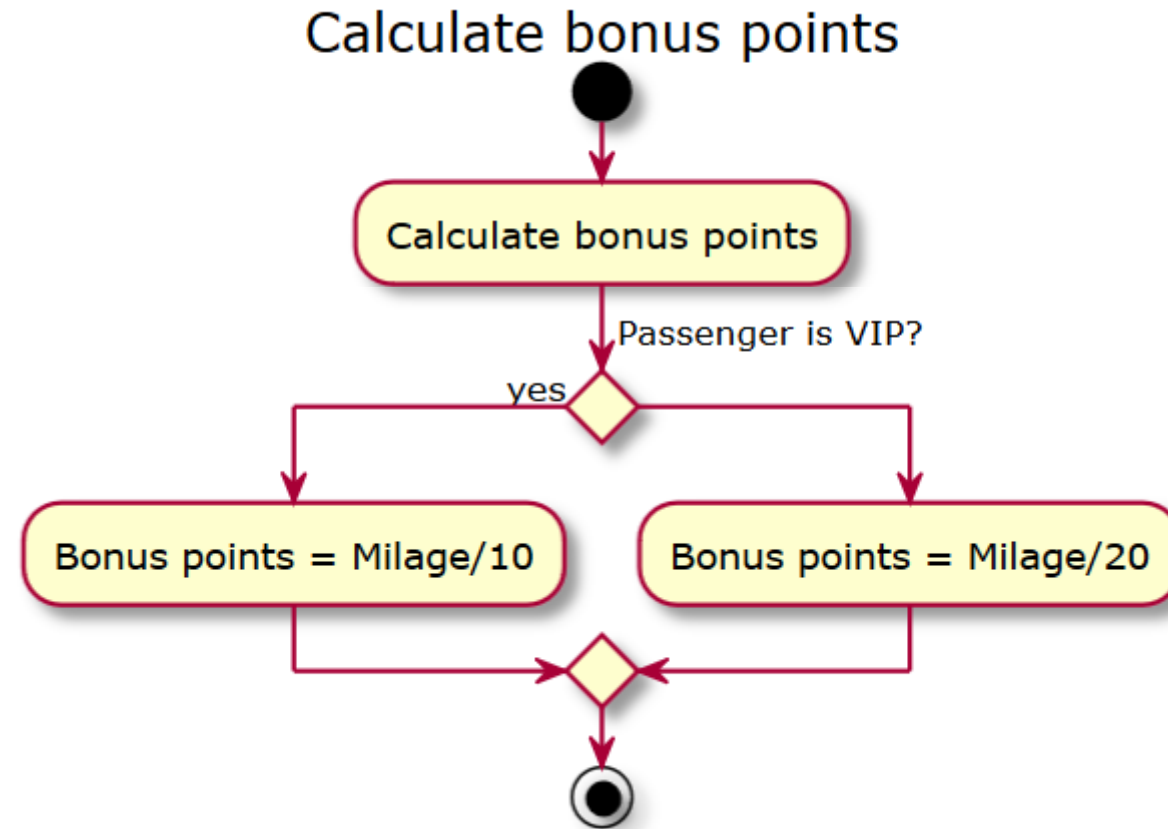
Run the tests - to be green



Adding a Policy for Bonus Points



Calculate Passenger's Bonus Points



Demo



Define the scenarios of awarding the bonus points

Generate the Cucumber tests that describe the scenarios

Effectively add the code that implements the bonus award

Run the tests - to be green



Summary



Introduced Cucumber

Installed and configured Cucumber

Moved the existing tests to Cucumber

Introduced 3 new features BDD way, with the help of Cucumber

