Working BDD in an Agile Environment

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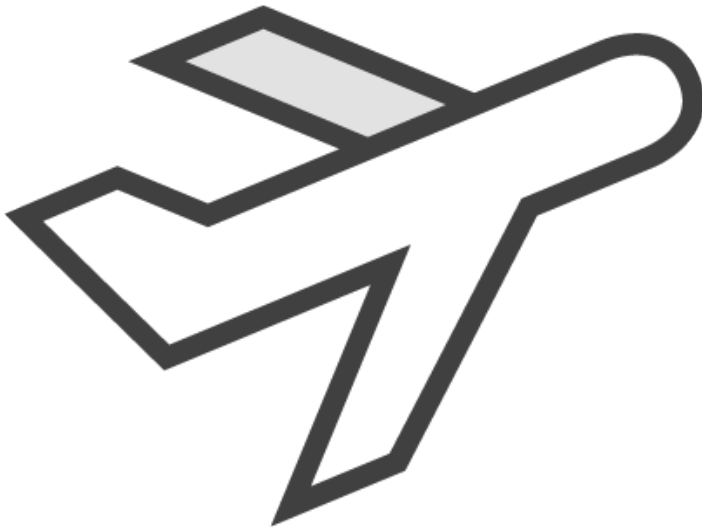
Overview

Simulate the BDD work in an Agile environment

Simulate the Agile workflow

Transpose the user stories into code working BDD with Cucumber

New Feature Agile Style

As a company

I want to build statistics about the flights

So that I have information about the passengers and the distances they travel

User Story 1 - Scenario 1

Given there is a usual passenger

And there is a VIP passenger

When the usual passenger travels distances <distance1> and <distance2> and <distance3>

And the VIP passenger travels distances <distance4> and <distance5> and <distance6>

Then the total travel distance should be <total_distance>

User Story 2 - Scenario 2

Given there is a usual passenger

And there is a VIP passenger

When the usual passenger travels distances <distance1> and <distance2> and <distance3> and <distance4>
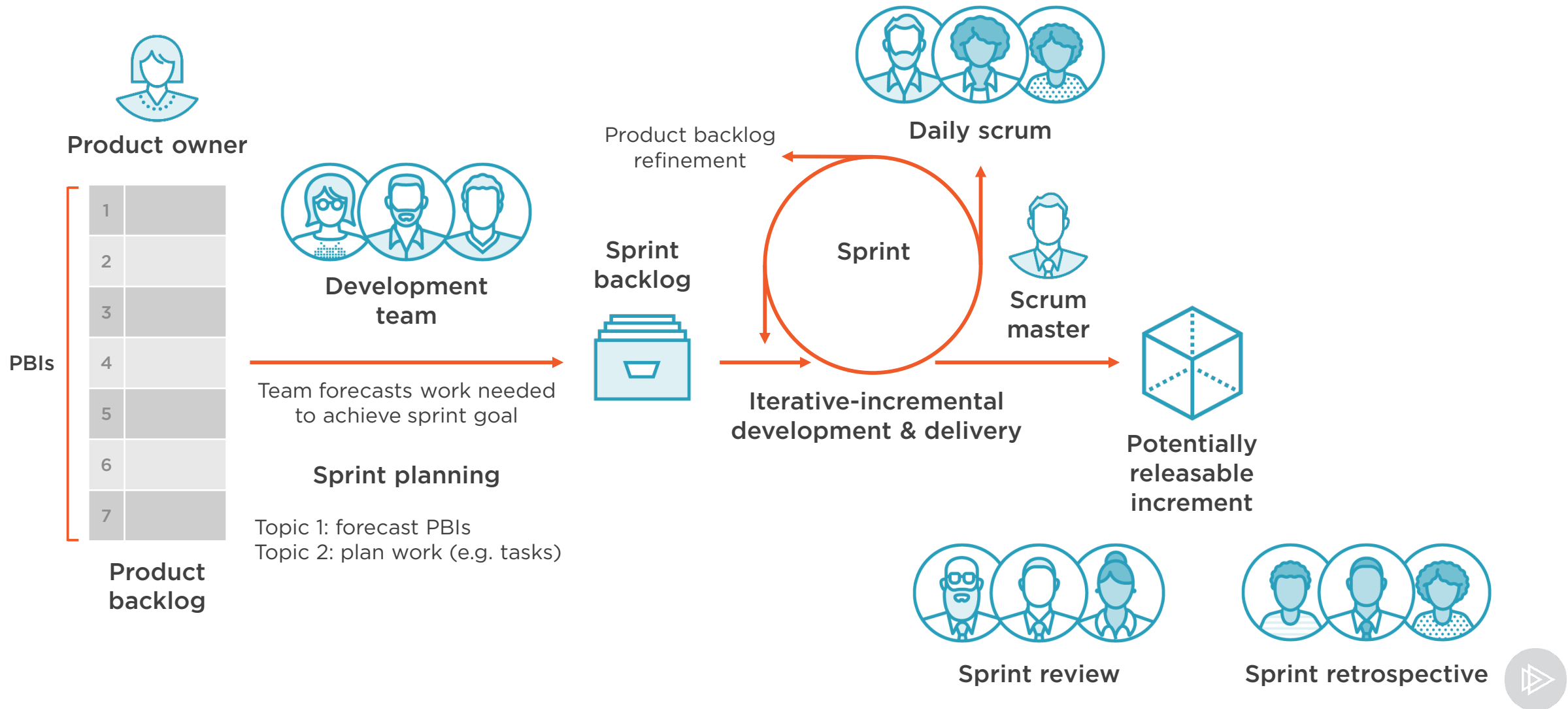
And the VIP passenger travels distances <distance5> and <distance6>

Then the minimum travel distance should be <minimum_distance>

And the maximum travel distance should be <maximum_distance>

Scrum Workflow

Product owner

PBIs

1	
2	
3	
4	
5	
6	
7	

Product backlog

Development team

Team forecasts work needed to achieve sprint goal

Sprint planning

Topic 1: forecast PBIs
Topic 2: plan work (e.g. tasks)

Sprint backlog

Product backlog refinement

Daily scrum

Sprint

Scrum master

Iterative-incremental development & delivery

Potentially releasable increment

Sprint review

Sprint retrospective

How to Estimate Using Story Points?

Amount of work

Complexity

Risk/uncertainty

User Story Estimations

User Story 1
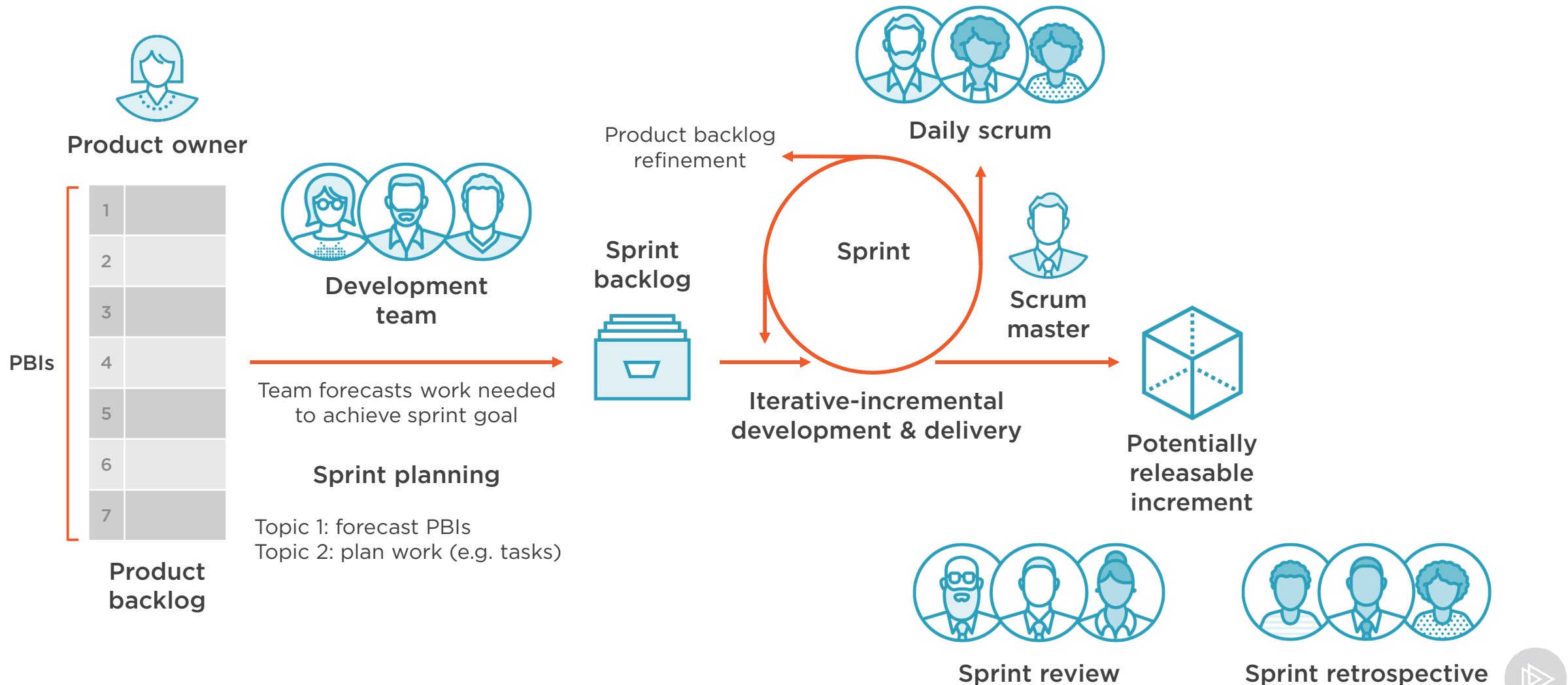
User Story 2

The Sprint, Day by Day

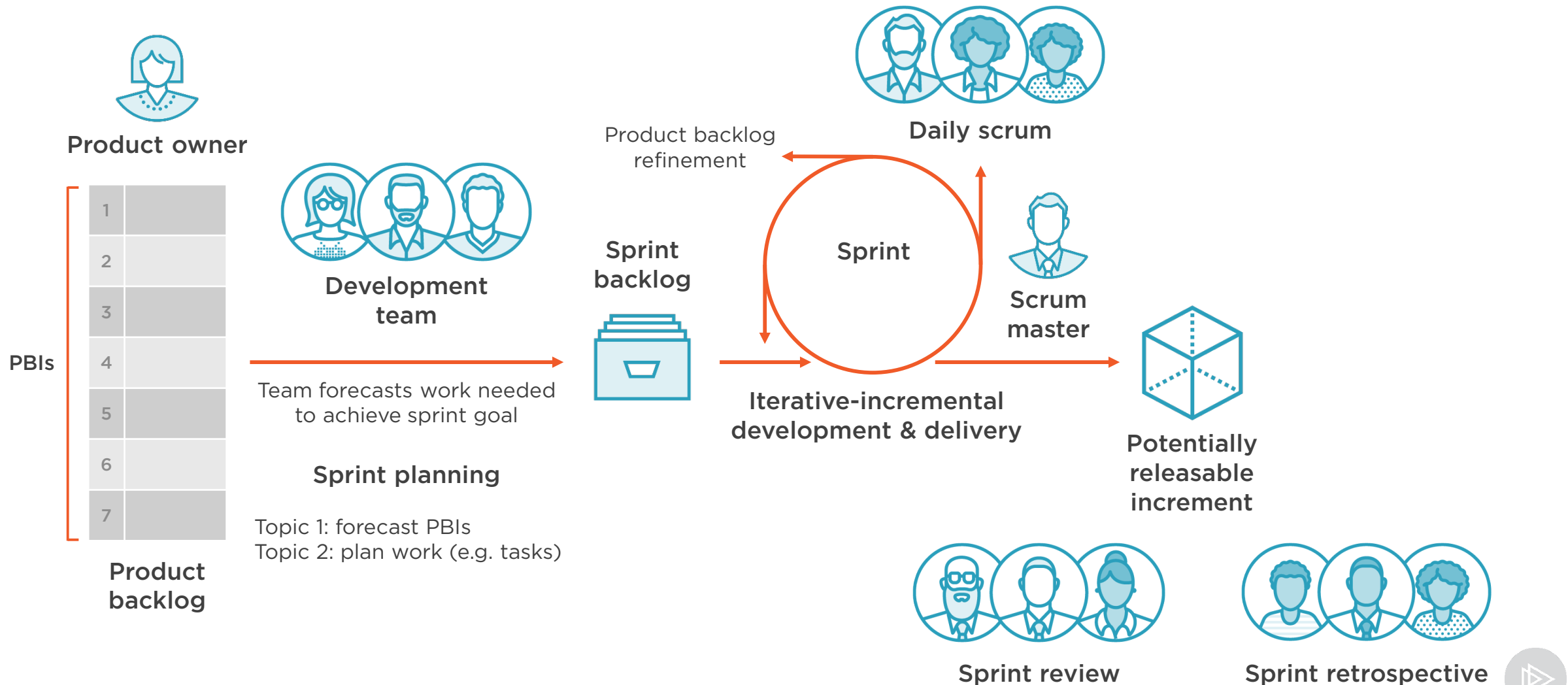# Sprint Day 1

Demo

- Flights management application

- Continue the work on the previous Cucumber version

- Define the statistics scenario of calculating the total distances

- Write the Cucumber tests that describe the scenario

Sprint Day 2

Product owner

PBIs

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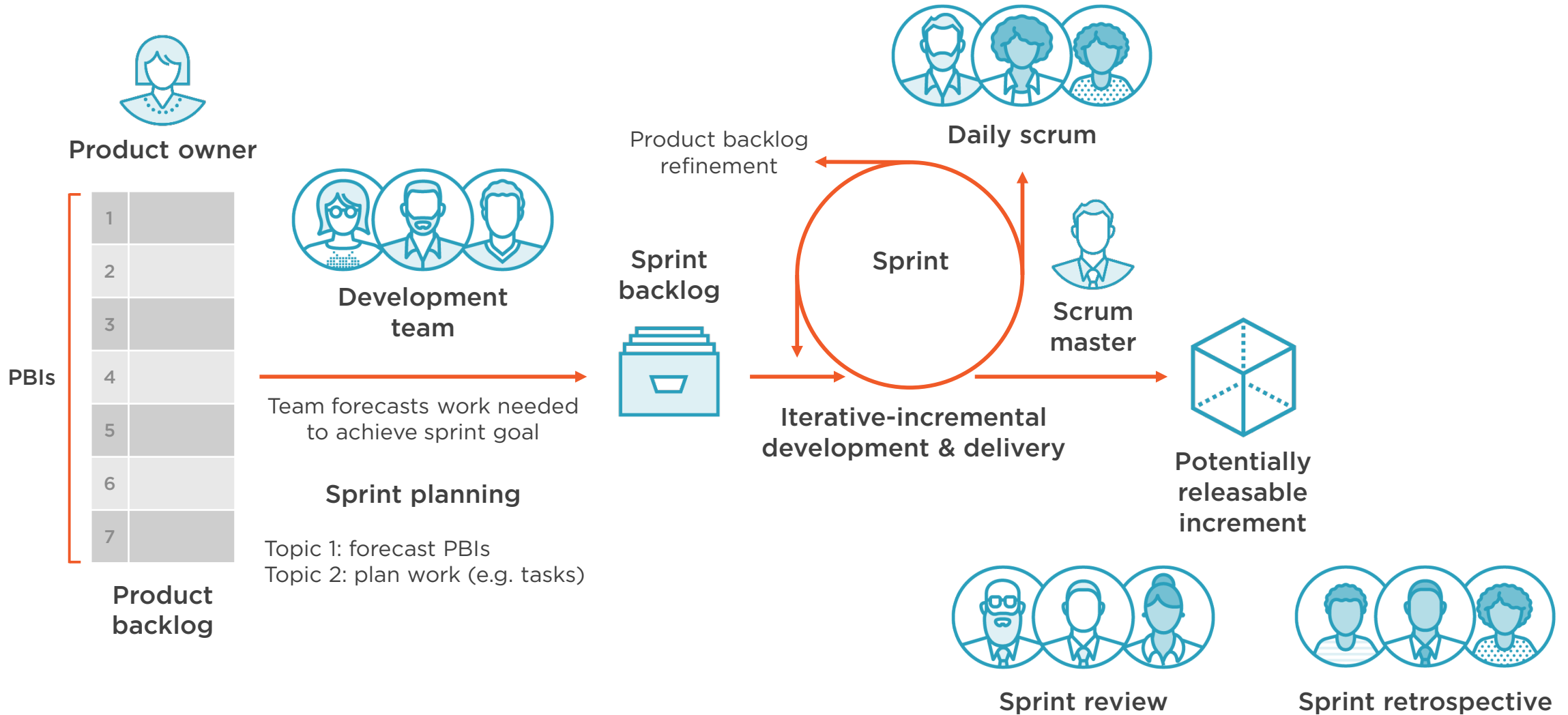
Sprint review

Sprint retrospective

Demo

- Work on the effective implementation of the feature functionality

- Make sure the implemented code will fix the previously defined scenario

- Measure the code coverage

Sprint Day 3

Demo

Write the Cucumber tests that describe the minimum and maximum distances scenario

Implement the code that will fix the previously defined scenario

Measure the code coverage

Summary

Implemented 2 user stories working BDD in an Agile environment

Estimated the user stories

Daily activities of the developer
- BDD style work on the user stories
- Daily Scrums

Focus on BDD and Agile processes

Conclusions and Related Courses

Course Summary

Origins in Test Driven Development

BDD advantages and shortcomings

Cucumber and JBehave

BDD in an Agile environment

Related Courses

"JUnit 5 Fundamentals" by Esteban Herrera

"TDD with JUnit 5" by Cătălin Tudose