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Mockito Made Clear

Java Unit Testing with Mocks, Stubs, and Spies

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The Pragmatic Programmers

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Java Unit Testing with Mocks, Stubs, and Spies

Ken Kousen

Edited by Margaret Eldridge

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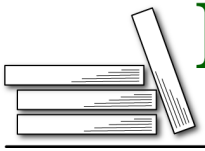

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ISBN-13: 978-1-68050-967-0
Encoded using the finest acid-free high-entropy binary digits.
Book version: B1.0—June 1, 2022

Introduction

This book is about the Mockito testing framework, but it's not an exhaustive reference. No books these days try to do that. For any library, the online documentation beats printed books every time, because it keeps up with new versions of the software and it can be adjusted to show new features and bug fixes. Where books become valuable is as a front-end to the online docs, in that they help you understand what you're getting into and what to expect when you get there. Books are curated content. They try to show you what is important and why.

For Mockito, a book like the current one is especially important, because the online documentation contains significant gaps. The docs were written by developers who understand tools like Mockito that generate mocks, stubs, and spies and help you use them. That's good, in that the docs focus on exactly how to make the framework do what you want. The downside is that you need to understand the problems that Mockito solves ahead of time, and unless you've already had experience with similar tools, those concepts are probably not obvious.

This book is intended to fill that gap. It's about the concepts behind Mockito, more than showing the details of how to use it. Those details are included, of course, for a set of representative examples, but the goal is understanding rather than the specific details of the syntax. The online docs are good for syntax (the classes and methods in the API), and, to a lesser extent, semantics (how to use the tool to do what you want), but they don't explain why Mockito is useful in the first place, or how it can make your job easier.

In fact, this is exactly what the *Pragmatic Answers* series is all about. It covers topics that are too big for a simple blog post, but probably not large enough to warrant a 300-page book. Books is this series are short and sweet. The goal is to get you up and running with the tool, in a way that you could devour in a weekend if necessary. The end result is to get you started and to help you understand the goals, the strategies, and the basic tactics of the frame-

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work. Then you can find any specific details in the online resources and know how to apply them.

Hopefully you will find this book a helpful addition to your library, and it will help you write more productive tests in your Java systems that help you know your code is doing what you want. We begin in the next chapter by examining the kinds of problems Mockito is designed to solve.

One note about software versions: the current version of Mockito at the time of this writing is 4.0.0. You may be using a version from the 2 line or the 3 line. That's fine, because the only differences are:

- Mockito 3 is just Mockito 2 with a required Java version of 1.8 or above.
- Mockito 4 is just Mockito 3 with deprecated items removed.

In other words, all the code in this book is written for Mockito 4, but should work on any Mockito version 2.* or above. The Java version will be 11, because even though the current LTS (Long Term Support) version is 17, not many users in the community have moved to that version. All the code in the book will work on all Java versions from 1.8 up.

Now it's time to start looking at the types of problems Mockito is designed to solve.

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