



Scala High Performance Programming

By Vincent Theron, Michael Diamant

Download now

Read Online ➔

Scala High Performance Programming By Vincent Theron, Michael Diamant

Key Features

- Get the first book to explore Scala performance techniques in depth!
- Real-world inspired use cases illustrate and support the techniques studied and the language features
- This book is written by Vincent Theron and Michael Diamant, software engineers with several years of experience in the high-frequency trading and programmatic advertising industries

Book Description

Scala is a statically and strongly typed language that blends functional and object-oriented paradigms. It has experienced growing popularity as an appealing and pragmatic choice to write production-ready software in the functional paradigm. Scala and the functional programming paradigm enable you to solve problems with less code and lower maintenance costs than the alternatives. However, these gains can come at the cost of performance if you are not careful.

Scala High Performance Programming arms you with the knowledge you need to create performant Scala applications. Starting with the basics of understanding how to define performance, we explore Scala's language features and functional programming techniques while keeping a close eye on performance throughout all the topics.

We introduce you as the newest software engineer at a fictitious financial trading company, named MV Trading. As you learn new techniques and approaches to reduce latency and improve throughput, you'll apply them to MV Trading's business problems. By the end of the book, you will be well prepared to write production-ready, performant Scala software using the functional paradigm to solve real-world problems.

What you will learn

- Analyze the performance of JVM applications by developing JMH benchmarks and profiling with Flight Recorder
- Discover use cases and performance tradeoffs of Scala language features, and

eager and lazy collections

- Explore event sourcing to improve performance while working with stream processing pipelines
- Dive into asynchronous programming to extract performance on multicore systems using Scala Future and Scalaz Task
- Design distributed systems with conflict-free replicated data types (CRDTs) to take advantage of eventual consistency without synchronization
- Understand the impact of queues on system performance and apply the Free monad to build systems robust to high levels of throughput

About the Author

Vincent Theron is a professional software engineer with 9 years of experience. He discovered Scala 6 years ago and uses it to build highly scalable and reliable applications. He designs software to solve business problems in various industries, including online gambling, financial trading, and, most recently, advertising. He earned a master's degree in computer science and engineering from Universite Paris-Est Marne-la-Vallee. Vincent lives in the Boston area with his wife, his son, and two furry cats.

Michael Diamant is a professional software engineer and functional programming enthusiast. He began his career in 2009 focused on Java and the object-oriented programming paradigm. After learning about Scala in 2011, he has focused on using Scala and the functional programming paradigm to build software systems in the financial trading and advertising domains. Michael is a graduate of Worcester Polytechnic Institute and lives in the Boston area.

Table of Contents

1. The Road to Performance
2. Measuring Performance on the JVM
3. Unleashing Scala Performance
4. Exploring the Collection API
5. Lazy Collections and Event Sourcing
6. Concurrency in Scala
7. Architecting for Performance

 [Download Scala High Performance Programming ...pdf](#)

 [Read Online Scala High Performance Programming ...pdf](#)

Scala High Performance Programming

By Vincent Theron, Michael Diamant

Scala High Performance Programming By Vincent Theron, Michael Diamant

Key Features

- Get the first book to explore Scala performance techniques in depth!
- Real-world inspired use cases illustrate and support the techniques studied and the language features
- This book is written by Vincent Theron and Michael Diamant, software engineers with several years of experience in the high-frequency trading and programmatic advertising industries

Book Description

Scala is a statically and strongly typed language that blends functional and object-oriented paradigms. It has experienced growing popularity as an appealing and pragmatic choice to write production-ready software in the functional paradigm. Scala and the functional programming paradigm enable you to solve problems with less code and lower maintenance costs than the alternatives. However, these gains can come at the cost of performance if you are not careful.

Scala High Performance Programming arms you with the knowledge you need to create performant Scala applications. Starting with the basics of understanding how to define performance, we explore Scala's language features and functional programming techniques while keeping a close eye on performance throughout all the topics.

We introduce you as the newest software engineer at a fictitious financial trading company, named MV Trading. As you learn new techniques and approaches to reduce latency and improve throughput, you'll apply them to MV Trading's business problems. By the end of the book, you will be well prepared to write production-ready, performant Scala software using the functional paradigm to solve real-world problems.

What you will learn

- Analyze the performance of JVM applications by developing JMH benchmarks and profiling with Flight Recorder
- Discover use cases and performance tradeoffs of Scala language features, and eager and lazy collections
- Explore event sourcing to improve performance while working with stream processing pipelines
- Dive into asynchronous programming to extract performance on multicore systems using Scala Future and Scalaz Task
- Design distributed systems with conflict-free replicated data types (CRDTs) to take advantage of eventual consistency without synchronization
- Understand the impact of queues on system performance and apply the Free monad to build systems robust to high levels of throughput

About the Author

Vincent Theron is a professional software engineer with 9 years of experience. He discovered Scala 6 years ago and uses it to build highly scalable and reliable applications. He designs software to solve business problems in various industries, including online gambling, financial trading, and, most recently, advertising.

He earned a master's degree in computer science and engineering from Universite Paris-Est Marne-la-Vallee. Vincent lives in the Boston area with his wife, his son, and two furry cats.

Michael Diamant is a professional software engineer and functional programming enthusiast. He began his career in 2009 focused on Java and the object-oriented programming paradigm. After learning about Scala in 2011, he has focused on using Scala and the functional programming paradigm to build software systems in the financial trading and advertising domains. Michael is a graduate of Worcester Polytechnic Institute and lives in the Boston area.

Table of Contents

1. The Road to Performance
2. Measuring Performance on the JVM
3. Unleashing Scala Performance
4. Exploring the Collection API
5. Lazy Collections and Event Sourcing
6. Concurrency in Scala
7. Architecting for Performance

Scala High Performance Programming By Vincent Theron, Michael Diamant Bibliography

- Rank: #388291 in eBooks
- Published on: 2016-05-31
- Released on: 2016-05-31
- Format: Kindle eBook

 [Download Scala High Performance Programming ...pdf](#)

 [Read Online Scala High Performance Programming ...pdf](#)

Download and Read Free Online Scala High Performance Programming By Vincent Theron, Michael Diamant

Editorial Review

About the Author

Vincent Theron

Vincent Theron is a professional software engineer with 9 years of experience. He discovered Scala 6 years ago and uses it to build highly scalable and reliable applications. He designs software to solve business problems in various industries, including online gambling, financial trading, and, most recently, advertising. He earned a master's degree in computer science and engineering from Université Paris-Est Marne-la-Vallée. Vincent lives in the Boston area with his wife, his son, and two furry cats.

Michael Diamant

Michael Diamant is a professional software engineer and functional programming enthusiast. He began his career in 2009 focused on Java and the object-oriented programming paradigm. After learning about Scala in 2011, he has focused on using Scala and the functional programming paradigm to build software systems in the financial trading and advertising domains. Michael is a graduate of Worcester Polytechnic Institute and lives in the Boston area.

Users Review

From reader reviews:

William Medellin:

The book Scala High Performance Programming can give more knowledge and also the precise product information about everything you want. Why then must we leave a good thing like a book Scala High Performance Programming? Some of you have a different opinion about reserve. But one aim that book can give many info for us. It is absolutely proper. Right now, try to closer with the book. Knowledge or information that you take for that, you could give for each other; you may share all of these. Book Scala High Performance Programming has simple shape but you know: it has great and large function for you. You can seem the enormous world by start and read a book. So it is very wonderful.

Josefina Smith:

In this 21st hundred years, people become competitive in most way. By being competitive at this point, people have do something to make them survives, being in the middle of the crowded place and notice by surrounding. One thing that oftentimes many people have underestimated the item for a while is reading. Yeah, by reading a e-book your ability to survive improve then having chance to remain than other is high. In your case who want to start reading a new book, we give you this kind of Scala High Performance Programming book as beginning and daily reading guide. Why, because this book is greater than just a book.

Scott Rochelle:

This book untitled Scala High Performance Programming to be one of several books that best seller in this year, that's because when you read this publication you can get a lot of benefit into it. You will easily to buy this book in the book retail store or you can order it by way of online. The publisher in this book sells the e-book too. It makes you quickly to read this book, because you can read this book in your Smartphone. So there is no reason for you to past this book from your list.

Anne Shivers:

Reserve is one of source of knowledge. We can add our expertise from it. Not only for students but native or citizen need book to know the upgrade information of year for you to year. As we know those guides have many advantages. Beside we add our knowledge, also can bring us to around the world. Through the book Scala High Performance Programming we can consider more advantage. Don't someone to be creative people? Being creative person must love to read a book. Only choose the best book that ideal with your aim. Don't become doubt to change your life at this book Scala High Performance Programming. You can more attractive than now.

**Download and Read Online Scala High Performance Programming
By Vincent Theron, Michael Diamant #WK124EI8NLT**

Read Scala High Performance Programming By Vincent Theron, Michael Diamant for online ebook

Scala High Performance Programming By Vincent Theron, Michael Diamant Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Scala High Performance Programming By Vincent Theron, Michael Diamant books to read online.

Online Scala High Performance Programming By Vincent Theron, Michael Diamant ebook PDF download

Scala High Performance Programming By Vincent Theron, Michael Diamant Doc

Scala High Performance Programming By Vincent Theron, Michael Diamant Mobipocket

Scala High Performance Programming By Vincent Theron, Michael Diamant EPub

WK124EI8NLT: Scala High Performance Programming By Vincent Theron, Michael Diamant