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Autore	Jain Shashank Mohan
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Nota di contenuto	Chapter 1: Virtualization Basics -- Chapter 2: Hypervisor -- Chapter 3: Namespaces -- Chapter 4: Cgroups -- Chapter 5: Layered File Systems -- Chapter 6: Creating a Simple Container Framework -- Chapter 7: Introduction to Rust -- Chapter 8: Containers in Rust.
Sommario/riassunto	This book is a practical, comprehensive guide to creating secure and efficient Linux containers using the Rust programming language. It utilizes a hands-on approach to teach Rust's programming constructs, security features, and its application in containerization. Author Shashank Mohan Jain starts with a gentle introduction to Rust to help you grasp the language's core concepts, syntax, and unique memory safety guarantees. He then transitions into the realm of Linux container development, where Rust shines as a robust and secure language for building containerized applications. Through hands-on examples, you will gain a deep understanding of how to harness Rust's features to create lightweight and secure Linux containers and how to leverage its strong type system and ownership model to eliminate common bugs and ensure memory safety in containerized applications. As you progress, you'll explore the intricacies of working with system resources, networking, and interacting with the host operating system while maintaining isolation and security within the containers, as well as how Rust's concurrency model can build performant and responsive

containerized applications. The book also covers advanced topics such as secure configuration handling, logging, and handling authentication within your containerized environment. After completing this book, you will be well-versed in Rust programming, equipped to create efficient and secure Linux containers, and confident in your ability to develop containerized applications for a variety of use cases. You will: Understand the basics of the Rust programming language Understand Rust's security features Create Linux constructs like namespaces in Rust Develop your own container runtime using Rust.