1. Record Nr. UNINA9910808269103321

Autore	Sharma Rahul
Titolo	The complete rust programming reference guide : design, develop, and deploy effective software systems using the advanced constructs of rust / / Rahul Sharma, Vesa Kaihlavirta, Claus Matzinger
Pubbl/distr/stampa	Birmingham, UK : , : Packt Publishing, , 2019
ISBN	1838826386 9781838826383 1838828109 9781838828103
Edizione	[First edition.]
Descrizione fisica	1 online resource (685 pages)
Disciplina	005.3
Soggetti	Application software - Development Rust (Computer program language)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Chapter 1: Getting Started with Rust -- Chapter 2: Managing Projects with Cargo -- Chapter 3: Tests, Documentation, and Benchmarks -- Chapter 4: Types, Generics, and Traits -- Chapter 5: Memory Management and Safety -- Chapter 6: Error Handling -- Chapter 7: Advanced Concepts -- Chapter 8: Concurrency -- Chapter 9: Metaprogramming with Macros -- Chapter 10: Unsafe Rust and Foreign Function Interfaces -- Chapter 11: Logging -- Chapter 12: Network Programming in Rust -- Chapter 13: Building Web Applications with Rust -- Chapter 14: Lists, Lists, and More Lists -- Chapter 15: Robust Trees -- Chapter 16: Exploring Maps and Sets -- Chapter 17: Collections in Rust -- Chapter 18: Algorithm Evaluation -- Chapter 19: Ordering Things -- Chapter 20: Finding Stuff -- Chapter 21: Random and Combinatorial -- Chapter 22: Algorithms of the Standard Library.
Sommario/riassunto	"Design and implement professional-level programs by leveraging modern data structures and algorithms in Rust Key Features Improve your productivity by writing more simple and easy code in Rust Discover the functional and reactive implementations of traditional data structures Delve into new domains of Rust, including WebAssembly,

networking, and command-line tools Book Description Rust is a powerful language with a rare combination of safety, speed, and zero-cost abstractions. This Learning Path is filled with clear and simple explanations of its features along with real-world examples, demonstrating how you can build robust, scalable, and reliable programs. You'll get started with an introduction to Rust data structures, algorithms, and essential language constructs. Next, you will understand how to store data using linked lists, arrays, stacks, and queues. You'll also learn to implement sorting and searching algorithms, such as Brute Force algorithms, Greedy algorithms, Dynamic Programming, and Backtracking. As you progress, you'll pick up on using Rust for systems programming, network programming, and the web. You'll then move on to discover a variety of techniques, right from writing memory-safe code, to building idiomatic Rust libraries, and even advanced macros. By the end of this Learning Path, you'll be able to implement Rust for enterprise projects, writing better tests and documentation, designing for performance, and creating idiomatic Rust code. This Learning Path includes content from the following Packt products: Mastering Rust - Second Edition by Rahul Sharma and Vesa Kaihlavirta Hands-On Data Structures and Algorithms with Rust by Claus Matzinger What you will learn Design and implement complex data structures in Rust Create and use well-tested and reusable components with Rust Understand the basics of multithreaded programming and advanced algorithm design Explore application profiling based on benchmarking and testing Study and apply best practices and strategies in error handling Create efficient web applications with the Actix-web framework Use Diesel for type-safe database interactions in your web application Who this book is for If you are already familiar with an imperative language and now want to progress from being a beginner to an intermediate-level Rust programmer, this Learning Path is for you. Developers who are already familiar with Rust and want to delve deeper into the essential data structures and algorithms in Rust will also find this Learning Path useful." -- Publisher's description.