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Titolo Advanced C++: master the technique of confidently writing robust

C++ code / / Gazihan Alankus [and four others]

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Soggetti C++ (Computer program language)

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Note generali Includes index.

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Sommario/riassunto Become an expert at C++ by learning all the key C++ concepts and

working through interesting exercises Key Features Explore C++ concepts through descriptive graphics and interactive exercises Learn how to keep your development bug-free with testing and debugging Discover various techniques to optimize your code Book Description C++ is one of the most widely used programming languages and is applied in a variety of domains, right from gaming to graphical user interface (GUI) programming and even operating systems. If you're looking to expand your career opportunities, mastering the advanced features of C++ is key. The book begins with advanced C++ concepts by helping you decipher the sophisticated C++ type system and understand how various stages of compilation convert source code to object code. You'll then learn how to recognize the tools that need to be used in order to control the flow of execution, capture data, and pass data around. By creating small models, you'll even discover how to use advanced lambdas and captures and express common API design patterns in C++. As you cover later chapters, you'll explore ways to optimize your code by learning about memory alignment, cache access, and the time a program takes to run. The concluding chapter will help you to maximize performance by understanding modern CPU branch prediction and how to make your code cache-friendly. By the end of this book, you'll have developed programming skills that will set you apart from other C++ programmers. What you will learn Delve into the

anatomy and workflow of C++ Study the pros and cons of different approaches to coding in C++ Test, run, and debug your programs Link object files as a dynamic library Use templates, SFINAE, constexpr if expressions and variadic templates Apply best practice to resource management Who this book is for If you have worked in C++ but want to learn how to make the most of this language, especially for large projects, this book is for you. A general understanding of programming and knowledge of using an editor to produce code files in project directories is a must. Some experience with strongly typed languages, such as C and C++, is also recommended.