

C Programming A Modern Approach 2nd Edition

Get started with writing simple programs in C while learning the skills that will help you work with practically any programming language. Key Features: Learn essential C concepts such as variables, data structures, functions, loops, and pointers. Get to grips with the core programming aspects that form the base of many modern programming languages. Explore the expressiveness and versatility of the C language with the help of sample programs. Book Description: C is a powerful general-purpose programming language that is excellent for beginners to learn. This book will introduce you to computer programming and software development using C. If you're an experienced developer, this book will help you to become familiar with the C programming language. This C programming book takes you through basic programming concepts and shows you how to implement them in C. Throughout the book, you'll create and run programs that make use of one or more C concepts, such as program structure with functions, data types, and conditional statements. You'll also see how to use looping and iteration, arrays, pointers, and strings. As you make progress, you'll cover code documentation, testing and validation methods, basic input/output, and how to write complete programs in C. By the end of the book, you'll have developed basic programming skills in C, that you can apply to other programming languages and will develop a solid foundation for you to advance as a programmer. What you will learn: Understand fundamental programming concepts and implement them in C. Write working programs with an emphasis on code indentation and readability. Break existing programs intentionally and learn how to debug code. Adopt good coding practices and develop a clean coding style. Explore general programming concepts that are applicable to more advanced projects. Discover how you can use building blocks to make more complex and interesting programs. Use C Standard Library functions and understand why doing this is desirable. Who this book is for: This book is written for two very diverse audiences. If you're an absolute beginner who only has basic familiarity with operating a computer, this book will help you learn the most fundamental concepts and practices you need to know to become a successful C programmer. If you're an experienced programmer, you'll find the full range of C syntax as well as common C idioms. You can skim through the explanations and focus primarily on the source code provided.

Suitable for students at a variety of levels, C Programming: A Modern Approach covers the C language as no book has before. Even C's most difficult concepts are easy to learn, thanks to the book's lucid explanations, carefully graded examples, and many helpful figures. A "spiral" approach to the language's features makes this book the ideal text for learning C. Clear, accurate, and up-to-date, C Programming: A Modern Approach is destined to become a classic.

The old saying goes, "To the man with a hammer, everything looks like a nail." But anyone who has done any kind of project knows a hammer often isn't enough. The more tools you have at your disposal, the more likely you'll use the right tool for the job - and get it done right. The same is true when it comes to your thinking. The quality of your outcomes depends on the mental models in your head. And most people are going through life with little more than a hammer. Until now. The Great Mental Models: General Thinking Concepts is the first book in The Great Mental Models series designed to upgrade your thinking with the best, most useful and powerful tools so you always have the right one on hand. This volume details nine of the most versatile, all-purpose mental models you can use right away to improve your decision making, productivity, and how clearly you see the world. You will discover what forces govern the universe and how to focus your efforts so you can harness them to your advantage, rather than fight with them or worse yet - ignore them. Upgrade your mental toolbox and get the first volume today. AUTHOR BIOGRAPHY: Farnam Street (FS) is one of the world's fastest growing websites, dedicated to helping our readers master the best of what other people have already figured out. We curate, examine and explore the timeless ideas and mental models that history's brightest minds have used to live lives of purpose. Our readers include students, teachers, CEOs, coaches, athletes, artists, leaders, followers, politicians and more. They're not defined by gender, age, income, or politics but rather by a shared passion for avoiding problems, making better decisions, and lifelong learning. AUTHOR HOME: Ottawa, Ontario, Canada C++ was written to help professional C# developers learn modern C++ programming. The aim of this book is to leverage your existing C# knowledge in order to expand your skills. Whether you need to use C++ in an upcoming project, or simply want to learn a new language (or reacquaint yourself with it), this book will help you learn all of the fundamental pieces of C++ so you can begin writing your own C++ programs. This updated and expanded second edition of Book provides a user-friendly introduction to the subject. Taking a clear structural framework, it guides the reader through the subject's core elements. A flowing writing style combines with the use of illustrations and diagrams throughout the text to ensure the reader understands even the most complex of concepts. This succinct and enlightening overview is a required reading for all those interested in the subject. We hope you find this book useful in shaping your future career & Business.

C is the programming language of choice when speed and reliability are required. It is used for many low-level tasks, such as device drivers and operating-system programming. For example, much of Windows and Linux is based on C programming. The updated 4th edition of Beginning C builds on the strengths of its predecessors to offer an essential guide for anyone who wants to learn C or desires a 'brush-up' in this compact, fundamental language. This classic from author, lecturer and respected academic Ivor Horton is the essential guide for anyone looking to learn the C language from the ground up.

Never HIGHLIGHT a Book Again! Virtually all testable terms, concepts, persons, places, and events are included. Cram101 Textbook Outlines gives all of the outlines, highlights, notes for your textbook with optional online practice tests. Only Cram101 Outlines are Textbook Specific. Cram101 is NOT the Textbook. Accompanys: 9780521673761

Teaching the principles and techniques of programming through simple game creation, a beginner's guide to programming in C uses hands-on exercises and tutorials to help readers acquire essential skills, while covering such topics as variables, loops, pointers, arrays, conditions, and dynamic memory allocation. Original. (Beginner)

Software -- Programming Languages.

Provides instructions for writing C code to create games and mobile applications using the new C11 standard.

This book gives a good start and complete introduction for C# Programming for Beginner's. While reading this book it is fun and easy to read it. This book is best suitable for first time C# readers, Covers all fast track topics of C# for all Computer Science students and Professionals. This book is targeted toward those who have little or no programming experience or who might be picking up C# as a second language. The book has been structured and written with a purpose: to get you productive as quickly as possible. I've used my experiences in writing applications with C# and teaching C# to create a book that I hope cuts through the fluff and teaches you what you need to know. All too often,

authors fall into the trap of focusing on the technology rather than on the practical application of the technology. I've worked hard to keep this book focused on teaching you practical skills that you can apply immediately toward a development project. This book is divided into ten Chapters, each of which focuses on a different aspect of developing applications with C#. These parts generally follow the flow of tasks you'll perform as you begin creating your own programs with C#. I recommend that you read them in the order in which they appear. Using C#, this book develops the concepts and theory of Building the Program Logic and Interfaces analysis, Exceptions, Delegates and Events and other important things in a gradual, step-by-step manner, proceeding from concrete examples to abstract principles. Standish covers a wide range of both traditional and contemporary software engineering topics. This is a handy guide of sorts for any computer science engineering Students, Thinking In C# Programming is a solution bank for various complex problems related to C# and .NET. It can be used as a reference manual by Computer Science Engineering students. This Book also covers all aspects of B.TECH CS, IT, and BCA and MCA, BSC IT. Preview introduced programmers to a new era called functional programming. C# focused on bridging the gap between programming languages and databases. This book covers all the language features from the first version through C# . It also provides you with the essentials of using Visual Studio 2005 to let you enjoy its capabilities and save you time by using features such as IntelliSense. Learning a new programming language can be intimidating. If you've never programmed before, the act of typing seemingly cryptic text to produce sleek and powerful applications probably seems like a black art, and you might wonder how you'll ever learn everything you need to know. The answer is, of course, one step at a time. The first step to learning a language is the same as that of any other activity: building confidence. Programming is part art and part science. Although it might seem like magic, it's more akin to illusion: After you know how things work a lot of the mysticism goes away, freeing you to focus on the mechanics necessary to produce any given desired result. Chapter 1 (Introduction To C# AND .NET) Chapter 2 (Your First Go at C# Programming) Chapter 3 (C# Data Types)' Chapter 4 (Building the Program Logic) Chapter 5 (Using Classes) Chapter 6 (Function Members) Chapter 7 (Structs, Enums, and Attributes) Chapter 8 (Interfaces) Chapter 9 (Exceptions) Chapter 10 (Delegates and Events)

C is one of the oldest programming languages and still one of the most widely used. Whether you're an experienced C programmer or you're new to the language, you know how frustrating it can be to hunt through hundreds of pages in your reference books to find that bit of information on a certain function, type or other syntax element. Or even worse, you may not have your books with you. Your answer is the C Pocket Reference. Concise and easy to use, this handy pocket guide to C is a must-have quick reference for any C programmer. It's the only C reference that fits in your pocket and is an excellent companion to O'Reilly's other C books. Ideal as an introduction for beginners and a quick reference for advanced programmers, the C Pocket Reference consists of two parts: a compact description of the C language and a thematically structured reference to the standard library. The representation of the language is based on the ANSI standard and includes extensions introduced in 1999. An index is included to help you quickly find the information you need. This small book covers the following: C language fundamentals Data types Expressions and operators C statements Declarations Functions Preprocessor directives The standard library O'Reilly's Pocket References have become a favorite among programmers everywhere. By providing a wealth of important details in a concise, well-organized format, these handy books deliver just what you need to complete the task at hand. When you've reached a sticking point in your work and need to get to a solution quickly, the new C Pocket Reference is the book you'll want to have.

For beginning programmers, this updated edition answers all C programming questions. This bestseller talks to readers at their level, explaining every aspect of how to get started and learn the C language quickly. Readers also find out where to learn more about C. This book includes tear-out reference card of C functions and statements, a hierarchy chart, and other valuable information. It uses special icons, notes, clues, warnings, and rewards to make understanding easier. And the clear and friendly style presumes no programming knowledge.

Learn key topics such as language basics, pointers and pointer arithmetic, dynamic memory management, multithreading, and network programming. Learn how to use the compiler, the make tool, and the archiver.

Book explains how to maximize the benefits of Intel's new dual-core and multi-core processors through a portable C++ library that works on Windows, Linux, Macintosh, and Unix systems.

Try making programs of your own and see where it leads you! In this book, we are going to give you an overview of the concepts that you have to understand before you actually start programming in the C language. We will explain to you the different elements that you ought to know about before you go and delve into developing more complex programs for different operating systems. The C programming language has many benefits. However, it also has numerous little aspects that can leave you perplexed. Not being able to understand these aspects can definitely cause you problems in the future. In this book, we're going to talk about what those elements are. We are also going to talk about what C is, where it came from, and all of the fundamental concepts that you have to understand before you actually start programming. In addition, we'll also teach you how to setup and use the Code Blocks IDE , which will help you greatly when programming in the C language . In this book you'll learn: Introduction to C Programming Language Starting Your First C Project The Old I/O The C Language Variables Character I/O Functions in C Math Operators C Language Comparisons Anatomy of a Function Working with Strings C Language Constants C language Arrays C Language Structures C Language Time Functions C Language Variables Scroll back and download your copy today!

Improve your programming through a solid understanding of C pointers and memory management. With this practical book, you'll learn how pointers provide the mechanism to dynamically manipulate memory, enhance support for data structures, and enable access to hardware. Author Richard Reese shows you how to use pointers with arrays, strings, structures, and functions, using memory models throughout the book. Difficult to master, pointers provide C with much

flexibility and power—yet few resources are dedicated to this data type. This comprehensive book has the information you need, whether you're a beginner or an experienced C or C++ programmer or developer. Get an introduction to pointers, including the declaration of different pointer types Learn about dynamic memory allocation, de-allocation, and alternative memory management techniques Use techniques for passing or returning data to and from functions Understand the fundamental aspects of arrays as they relate to pointers Explore the basics of strings and how pointers are used to support them Examine why pointers can be the source of security problems, such as buffer overflow Learn several pointer techniques, such as the use of opaque pointers, bounded pointers and, the restrict keyword

Modern Operating Systems, Fourth Edition, is intended for introductory courses in Operating Systems in Computer Science, Computer Engineering, and Electrical Engineering programs. It also serves as a useful reference for OS professionals. The widely anticipated revision of this worldwide best-seller incorporates the latest developments in operating systems (OS) technologies. The Fourth Edition includes up-to-date materials on relevant OS. Tanenbaum also provides information on current research based on his experience as an operating systems researcher. Modern Operating Systems, Third Edition was the recipient of the 2010 McGuffey Longevity Award. The McGuffey Longevity Award recognizes textbooks whose excellence has been demonstrated over time. <http://taaonline.net/index.html> Teaching and Learning Experience This program will provide a better teaching and learning experience—for you and your students. It will help: Provide Practical Detail on the Big Picture Concepts: A clear and entertaining writing style outlines the concepts every OS designer needs to master. Keep Your Course Current: This edition includes information on the latest OS technologies and developments Enhance Learning with Student and Instructor Resources: Students will gain hands-on experience using the simulation exercises and lab experiments.

C++ is a powerful, highly flexible, and adaptable programming language that allows software engineers to organize and process information quickly and effectively. But this high-level language is relatively difficult to master, even if you already know the C programming language. The new second edition of "Practical C++ Programming is a complete introduction to the C++ language for programmers who are learning C++. Reflecting the latest changes to the C++ standard, this new edition takes a useful down-to-earth approach, placing a strong emphasis on how to design clean, elegant code. In short, to-the-point chapters, all aspects of programming are covered including style, software engineering, programming design, object-oriented design, and debugging. It also covers common mistakes and how to find (and avoid) them. End of chapter exercises help you ensure you've mastered the material. Steve Oualline's clear, easy-going writing style and hands-on approach to learning make "Practical C++ Programming a nearly painless way to master this complex but powerful programming language.

This fourth edition of Gary Bronson's classic text implements the C99 standard in all discussion and example programs. An early emphasis on software engineering and top-down modular program development makes the material readily accessible to novice programmers. Early introduction and careful development of pointers demonstrate the power of good programming. The new edition features a new Common Compiler Errors feature in each chapter, and all material has been updated for currency and readability.

The CEFR Companion volume broadens the scope of language education. It reflects academic and societal developments since the publication of the Common European Framework of Reference for Languages (CEFR) and updates the 2001 version. It owes much to the contributions of members of the language teaching profession across Europe and beyond. This volume contains: an explanation of the key aspects of the CEFR for teaching and learning; a complete set of updated CEFR descriptors that replaces the 2001 set with: - modality-inclusive and gender-neutral descriptors; - added detail on listening and reading; - a new Pre-A1 level, plus enriched description at A1 and C levels; - a replacement scale for phonological competence; - new scales for mediation, online interaction and plurilingual/pluricultural competence; - new scales for sign language competence; a short report on the four-year development, validation and consultation processes. The CEFR Companion volume represents another step in a process of engagement with language education that has been pursued by the Council of Europe since 1971 and which seeks to: promote and support the learning and teaching of modern languages; enhance intercultural dialogue, and thus mutual understanding, social cohesion and democracy; protect linguistic and cultural diversity in Europe; and promote the right to quality education for all.

The professional programmer's Deitel® guide to procedural programming in C through 130 working code examples Written for programmers with a background in high-level language programming, this book applies the Deitel signature live-code approach to teaching the C language and the C Standard Library. The book presents the concepts in the context of fully tested programs, complete with syntax shading, code highlighting, code walkthroughs and program outputs. The book features approximately 5,000 lines of proven C code and hundreds of savvy tips that will help you build robust applications. Start with an introduction to C, then rapidly move on to more advanced topics, including building custom data structures, the Standard Library, select features of the new C11 standard such as multithreading to help you write high-performance applications for today's multicore systems, and secure C programming sections that show you how to write software that is more robust and less vulnerable. You'll enjoy the Deitels' classic treatment of procedural programming. When you're finished, you'll have everything you need to start building industrial-strength C applications. Practical, example-rich coverage of: C programming fundamentals Compiling and debugging with GNU gcc and gdb, and Visual C++® Key new C11 standard features: Type generic expressions, anonymous structures and unions, memory alignment, enhanced Unicode® support, _Static_assert, quick_exit and at_quick_exit, _Noreturn function specifier, C11 headers C11 multithreading for enhanced performance on today's multicore systems Secure C Programming sections Data structures, searching and sorting Order of evaluation issues, preprocessor Designated initializers, compound literals, bool type, complex numbers, variable-length arrays, restricted pointers, type generic math, inline functions, and more. Visit www.deitel.com For information on Deitel's Dive Into® Series programming training courses delivered at organizations worldwide visit www.deitel.com/training or write to deitel@deitel.com Download code examples To receive updates for this book, subscribe to the free DEITEL® BUZZ ONLINE e-mail newsletter at www.deitel.com/newsletter/subscribe.html Join the Deitel social networking communities on Facebook® at facebook.com/DeitelFan, Twitter® @deitel, LinkedIn® at bit.ly/DeitelLinkedIn and Google+™ at gplus.to/Deitel

C++ was written to help professional C# developers learn modern C++ programming. The aim of this book is to leverage your existing C# knowledge in order to expand your skills. Whether you need to use C++ in an upcoming project, or simply want to learn a new language (or reacquaint yourself with it), this book will help you learn all of the fundamental pieces of C++ so you can

begin writing your own C++ programs. This updated and expanded second edition of Book provides a user-friendly introduction to the subject, Taking a clear structural framework, it guides the reader through the subject's core elements. A flowing writing style combines with the use of illustrations and diagrams throughout the text to ensure the reader understands even the most complex of concepts. This succinct and enlightening overview is a required reading for all those interested in the subject . We hope you find this book useful in shaping your future career & Business.

The authors provide clear examples and thorough explanations of every feature in the C language. They teach C vis-a-vis the UNIX operating system. A reference and tutorial to the C programming language. Annotation copyrighted by Book News, Inc., Portland, OR

Designed for a compulsory fundamental course, C: From Theory to Practice uses a hands-on approach to teach the C programming language, using numerous examples and a clear, concise presentation. Easy to use and classroom tested, this textbook includes more than 500 exercises and examples of progressive difficulty to help students in understanding all the aspects and peculiarities of C. The exercises test students on various levels of programming and the examples enhance their concrete understanding of programming know-how. Divided into three parts, this book: Introduces the basic concepts of C, like getting input from a user, C's operators, selection statements, and loops. Emphasizes major features of C such as arrays, pointers, functions and strings. Covers advanced topics such as like searching and sorting arrays' algorithms, structures and unions, memory management, the preprocessor and files. The book tests the skills of beginners and advanced developers by providing an easy-to-read compilation of the C theory enriched with tips and advice as well as difficulty-scaled solved programming exercises. It decodes the secrets of the C language, providing inside information and programming knowledge through practical examples and meaningful advice. The examples are designed to be short, concrete, and substantial, quickly giving students the know-how they need.

Test your knowledge and know what to expect on A+ exam day CompTIA A+ Complete Practice Tests, Second Edition enables you to hone your test-taking skills, focus on challenging areas, and be thoroughly prepared to ace the exam and earn your A+ certification. This essential component of your overall study plan presents nine unique practice tests—and two 90-question bonus tests—covering 100% of the objective domains for both the 220-1001 and 220-1002 exams. Comprehensive coverage of every essential exam topic ensures that you will know what to expect on exam day and maximize your chances for success. Over 1200 practice questions on topics including hardware, networking, mobile devices, operating systems and procedures, troubleshooting, and more, lets you assess your performance and gain the confidence you need to pass the exam with flying colors. This second edition has been fully updated to reflect the latest best practices and updated exam objectives you will see on the big day. A+ certification is a crucial step in your IT career. Many businesses require this accreditation when hiring computer technicians or validating the skills of current employees. This collection of practice tests allows you to: Access the test bank in the Sybex interactive learning environment Understand the subject matter through clear and accurate answers and explanations of exam objectives Evaluate your exam knowledge and concentrate on problem areas Integrate practice tests with other Sybex review and study guides, including the CompTIA A+ Complete Study Guide and the CompTIA A+ Complete Deluxe Study Guide Practice tests are an effective way to increase comprehension, strengthen retention, and measure overall knowledge. The CompTIA A+ Complete Practice Tests, Second Edition is an indispensable part of any study plan for A+ certification. If you think "Modern" and "C" don't belong in the same sentence, think again. The C standards committee actively reviews and extends the language, with updated published C standards as recently as 2018. In Modern C, author Jens Gustedt teaches you the skills and features you need to write relevant programs in this tried-and-true language, including Linux and Windows, device drivers, web servers and browsers, smartphones, and much more! Modern C teaches you to take your C programming skills to new heights, whether you're just starting out with C or have more extensive experience. Organized by level, this comprehensive guide lets you jump in where it suits you best while still reaping the maximum benefits. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

Learn the C programming language easily and in a straightforward way. This book teaches the basics of C, the C Standard Library, and modern C standards. No previous programming experience is required. C is a language that is as popular today as it was decades ago. C covers a wide variety of domains. It can be used to program a microcontroller, or to develop an entire operating system. This book is an effort to introduce the reader to the C programming language in a concise and easy to follow manner. The author takes you through the C programming language, the Standard Library, and the C standards basics. Each chapter is the right balance of theory and code examples. After reading and using this book, you'll have the essentials to start programming in modern C. What You Will Learn The C programming language fundamentals The C Standard Library fundamentals New C Standards features The basics of types, operators, statements, arrays, functions, and structs The basics of pointers, memory allocation, and memory manipulation Take advantage of best practices in C Who This Book Is For Beginner or novice programmers who wish to learn the C programming language. No prior programming experience is required.

This book teaches computer programming to the complete beginner using the native C language. As such, it assumes you have no knowledge whatsoever about programming. The main goal of this book is to teach fundamental programming principles using C, one of the most widely used programming languages in the world today. We discuss only those features and statements in C that are necessary to achieve our goal. Once you learn the principles well, they can be applied to any language. If you are worried that you are not good at high-school mathematics, don't be. It is a myth that you must be good at mathematics to learn programming. C is considered a 'modern' language even though its roots date back to the 1970s. Originally, C was designed for writing 'systems' programs—things like operating systems, editors, compilers, assemblers and input/output utility programs. But, today, C is used for writing all kinds of applications programs as well—word processing programs, spreadsheet programs, database management programs, accounting

programs, games, robots, embedded systems/electronics (i.e., Arduino), educational software—the list is endless. Note: Appendices A-D are available as part of the free source code download at the Apress website. What You Will Learn: How to get started with programming using the C language How to use the basics of C How to program with sequence, selection and repetition logic How to work with characters How to work with functions How to use arrays Who This Book Is For: This book is intended for anyone who is learning programming for the first time.

C Programming A Modern Approach W W Norton & Company Incorporated

Introduces the features of the C programming language, discusses data types, variables, operators, control flow, functions, pointers, arrays, and structures, and looks at the UNIX system interface

Aimed at the traditional CS1 course, Java Programming emphasizes object-oriented design, problem-solving, and good programming style, without overwhelming students with extraneous information.

Gain a better understanding of pointers, from the basics of how pointers function at the machine level, to using them for a variety of common and advanced scenarios. This short contemporary guide book on pointers in C programming provides a resource for professionals and advanced students needing in-depth hands-on coverage of pointer basics and advanced features. It includes the latest versions of the C language, C20, C17, and C14. You'll see how pointers are used to provide vital C features, such as strings, arrays, higher-order functions and polymorphic data structures. Along the way, you'll cover how pointers can optimize a program to run faster or use less memory than it would otherwise. There are plenty of code examples in the book to emulate and adapt to meet your specific needs. What You Will Learn Work effectively with pointers in your C programming Learn how to effectively manage dynamic memory Program with strings and arrays Create recursive data structures Implement function pointers Who This Book Is For Intermediate to advanced level professional programmers, software developers, and advanced students or researchers. Prior experience with C programming is expected.

You've never seen a C book like this before: packed with useful information and examples, yet highly readable. Everyone from beginner to expert can profit from reading C Programming: A Modern Approach.

Throw out your old ideas of C, and relearn a programming language that's substantially outgrown its origins. With 21st Century C, you'll discover up-to-date techniques that are absent from every other C text available. C isn't just the foundation of modern programming languages, it is a modern language, ideal for writing efficient, state-of-the-art applications. Learn to dump old habits that made sense on mainframes, and pick up the tools you need to use this evolved and aggressively simple language. No matter what programming language you currently champion, you'll agree that C rocks. Set up a C programming environment with shell facilities, makefiles, text editors, debuggers, and memory checkers Use Autotools, C's de facto cross-platform package manager Learn which older C concepts should be downplayed or deprecated Explore problematic C concepts that are too useful to throw out Solve C's string-building problems with C-standard and POSIX-standard functions Use modern syntactic features for functions that take structured inputs Build high-level object-based libraries and programs Apply existing C libraries for doing advanced math, talking to Internet servers, and running databases

You Will Learn C! Zed Shaw has crafted the perfect course for the beginning C programmer eager to advance their skills in any language. Follow it and you will learn the many skills early and junior programmers need to succeed—just like the hundreds of thousands of programmers Zed has taught to date! You bring discipline, commitment, persistence, and experience with any programming language; the author supplies everything else. In Learn C the Hard Way, you'll learn C by working through 52 brilliantly crafted exercises. Watch Zed Shaw's teaching video and read the exercise. Type his code precisely. (No copying and pasting!) Fix your mistakes. Watch the programs run. As you do, you'll learn what good, modern C programs look like; how to think more effectively about code; and how to find and fix mistakes far more efficiently. Most importantly, you'll master rigorous defensive programming techniques, so you can use any language to create software that protects itself from malicious activity and defects. Through practical projects you'll apply what you learn to build confidence in your new skills. Shaw teaches the key skills you need to start writing excellent C software, including Setting up a C environment Basic syntax and idioms Compilation, make files, and linkers Operators, variables, and data types Program control Arrays and strings Functions, pointers, and structs Memory allocation I/O and files Libraries Data structures, including linked lists, sort, and search Stacks and queues Debugging, defensive coding, and automated testing Fixing stack overflows, illegal memory access, and more Breaking and hacking your own C code It'll Be Hard at First. But Soon, You'll Just Get It—And That Will Feel Great! This tutorial will reward you for every minute you put into it. Soon, you'll know one of the world's most powerful programming languages. You'll be a C programmer.

A detailed introduction to the C programming language for experienced programmers. The world runs on code written in the C programming language, yet most schools begin the curriculum with Python or Java. Effective C bridges this gap and brings C into the modern era—covering the modern C17 Standard as well as potential C2x features. With the aid of this instant classic, you'll soon be writing professional, portable, and secure C programs to power robust systems and solve real-world problems. Robert C. Seacord introduces C and the C Standard Library while addressing best practices, common errors, and open debates in the C community. Developed together with other C Standards committee experts, Effective C will teach you how to debug, test, and analyze C programs. You'll benefit from Seacord's concise explanations of C language constructs and behaviors, and from his 40 years of coding experience. You'll learn: • How to identify and handle undefined behavior in a C program • The range and representations of integers and floating-point values • How dynamic memory allocation works and how to use nonstandard functions • How to use character encodings and types • How to perform I/O with terminals and filesystems using C Standard streams and POSIX file descriptors • How to understand the C compiler's translation phases and the role of the preprocessor • How to test, debug, and analyze C programs Effective C will teach you how to write professional, secure, and portable C code that will stand the test of time and help strengthen the foundation of the computing world.

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