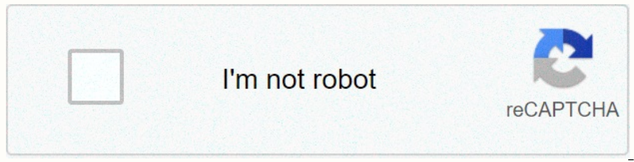

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Programming in c 4th edition pdf

Now in its fourth edition, The Book of C retains features that have made it a proven best-selling tutorial and link to the ANSI C programming language. This release builds on many of the existing strengths of text to improve, update and expand C coverage, and now includes information on the transition to Java and C++ from C. Beginners and professional programmers alike will benefit from the many examples and extensive exercises developed to guide the reader through each concept. Detailed autopsies of the program code illuminate the correct use and syntax of C language structures and reveal the basic logic of their application. Clarity of exposure and book format make it an excellent reference to all aspects of C. Highlights book on C, Fourth edition: New and updated programming examples and autopsies-authors' trademark technique for illustrating and teaching language concepts. Recursion is highlighted with revised coverage in both text and exercises. Multifile programming is given more attention, as well as questions of accuracy and security type. Functional prototypes are now used throughout. Abstract data types, a key concept needed to understand objects, are carefully covered. Updated C++ transition material, including coverage of important object-oriented programming concepts. New coverage is available to switch from C to Java. References to key programming and C functions are provided in convenient tables. Editorial Review This book reveals the elegant simplicity and power of the C programming language, and describes the ANSI version. Beginners and professionals will benefit from his step-by-step autopsies of program code, and numerous examples and exercises. The book begins with the advantages of C, and briefly discusses the ANSI C standard, and the transition to C++ and Java. Chapter 1 outlines C as a language that includes key programming techniques. The authors then explain in detail the lexical elements, operators and constants in Chapter 2. Chapters 3 through 10 describe all C functions, including some advanced features. Moving forward, the book discusses how to do file processing and various input/output functions in a standard library, how to create concurrent processes, process overlays, and much more. The last two chapters of the book provide an overview of Java, and show you step-by-step how you can make the transition from C to C++ and Java. Appendices include standard library, language syntax, comparisons between ANSI C and traditional C, ASCII and operator and associativeness codes. The book uses tables to summarize key ideas that allows users to test the language comprehension. This book is useful and flexible for programmer C. -Fatbrain Reviews About Ira Pohl's author computer science at the University of California, Santa Cruz, and holds a doctoral degree in computer science from Stanford University. Its research interests include artificial intelligence, C and C++ programming languages, problems with practical complexity, heuristic search methods, deductive algorithms and educational and social issues. He originated by analyzing errors in heuristic search methods and deductional algorithms. Professor Pohl was previously a Mackay professor at the University of California-Berkeley and a ZWO fellow in the Netherlands. He is the author or co-author of object oriented programming using C++, C++ Distilled: Brief Ansi/Iso Reference and Style Guide, C Autopsy: Essentials of C Programming, Book on C: Programming in C, C++ for Programmers C, C++ for Fortran Programmers, C++ for Pascal Programmers, and Turbo C: Essentials of C Programming, all published by Addison-Wesley. 'Programming in C' is a comprehensive book that incorporates the basics of C from the beginning and gradually introduces readers to more advanced topics. As with most books of this kind, there are copious exercises at the end of each chapter, as well as various examples to illustrate key concepts. Some of them, however, are perhaps too difficult when it comes to strong mathematical inclination. Granted, it's often hard to come up with multireal-world/relevant examples. The general flow of information in the book is well thought out; concepts such as explained primitive types, although perhaps in too much detail. But for those readers who are accustomed to more dynamically-written languages, the amount of information given in these chapters will not be excessive. However, this book will not be for everyone. Fairly slow-paced concepts sometimes work a point at the cost of explaining other terms in C (entrust that to 'Programming Language C', which offers brevity in order to explain multiple language characteristics). For example, later in the book, there's a whole chapter devoted to thisbit-wise operation---a concept that could easily be elided for other multimathematic-minded books. There is a small section on dynamic memoryallocation, but it sounds like an outlier, long after concepts have been introduced. Since this book is targeted as a general platform, there is no real mention of system call libraries. Since string manipulation in C is often more than just a character manipulation array, there is no mention of calling as asstrlen(), page [n] cpy(), etc. this would be a nice aside, especially since some of the str*() functions use memory-allocation techniques. I would recommend this book, but only for a very limited audience. Similar books, which are pitched on the same level as this one, not 'C Primer Plus', offer more comprehensive reading, and cover multiple concepts in depth. Get programming in C, fourth edition now with online education. O'Reilly members experience live online training, plus books, videos and digital content from 200+ publishers. Programming in C will teach you how to write programs in C programming language. Whether you are a novice or an experienced programmer, this book will give you a clear idea of this language, which is the basis for many object-oriented programming languages such as C++, Objective-C, C# and Java.This book teaches C an example, complete with C programs used to illustrate every new concept along the way. Stephen Kochan provides a detailed explanation for all functions C. You will learn the language basics and best programming practices. Exercises at the end of each chapter make the book ideal for use in the classroom or for self-instruction. All C functions are included in this book, including the most recent additions added with C11. The additions provide a detailed summary of the language and standard library C, which are organized for quick reference. The absolute best book for anyone who starts programming in C. This is an excellent introductory text with frequent examples and good text.... That's the book I learned C-it's a great book. -Vinit S. Carpenter, Learn C/C++ Today Front Page About this eBook Front Page Copyright Page Developer Library Dedication Content at a Glance content about the author's confirmation we want to hear from you! Reader Services Introduction 1 Some basics 2 Build and run the first program 3 Variables, data types, and arithmetic expressions 4 Looping 5 Decision 6 Working with fields 7 Working with functions 8 Working with structures 9 Character strings 10 Indicators 11 Operations on bits 12 Preprocessor 13 Extending data types with enumeated data type, Type Definitions, and Data Type Conversions 14 Working with Larger Programs 15 Input and Output Operations in C 16 Miscellaneous and Advanced Features 17 Debugging Programs 18 Object-Oriented Programming C Language Summary B Standard C Library C Compilation Programs with GCC General Command Format Command-Line Options D Common Programming Errors E Resources Index Introduction 1 1 Some Basics 5 Programming 5 Higher-Level Languages 5 Operating Systems 6 Compilation Programs 7 Integrated Environment Development 10 Language Interpreters 10 2 Compilation and Startup First Program 11 Compiling 12 Running 12 Understanding Your First Program 13 Display Variable Values 15 Notes 17 Exercise 19 3 Variables , Data Types and Arithmetic Expressions 21 Understanding Data Types and Constants 21 Whole Type int 22 Floating Number Float Type Extended precision type double 23 Single character type char 24 Boolean data type _Bool 24 Type specifier: long, long, short, unsigned, and signed 26 Working with variables 29 Working with arithmetic expressions 30 Integer Arithmetic and Unary Minus operator 33 Kom Combining Operations with Assignment: Assignment Operators 39 Types _Complex and _Imaginary 40 Exercises 40 4 Program Looping 43 Triangular Numbers 43 For Declaration 44 Relational Operators 46 Output Alignment 50 Program Input 51 Nested for Loops 53 for loop variants 55 While Statement 56 Do Statement 60 Break Statement 62 Continue Statement 62 Exercise 63 5 Decision Making 65 If Statement 65 If-Else Construct 69 Compound Relational Tests 65 Nested, if declaration 74 otherwise, if construct 76 switch statement 83 Boolean variables 86 conditional operator 90 exercises 92 6 Working with fields 95 Defining field 96 by using array elements such as counters 100 generating Fibonacci number 103 Using the field to generate primary numbers 104 Initialization fields 106 characters 108 Basic Conversion using Fields 109 Conscientious Object Qualifier 111 Multidimensional Fields 113 Variable Length Fields 115 Exercise 117 7 Working with Functions 119 Defining Function 119 Arguments and Local Variables 123 Function Prototype Statement 124 Automatic Local Variables 124 Returning Function Results 126 Functions Calling Function Call ... 130 Declare return types and argument types 133 Check function Arguments 135 Top-Down Programming 137 functions and arrays 137 assignment operators 141 sorting arrays 143 multidimensional arrays 146 Global variables 151 Automatic and static variables 155 Recursive Functions 158 Exercises 161 8 Working with Structures 163 Structure Basics 163 Structure for Saving Date 164 Using Structures in Expressions 166 Functions and Structures 169 Structure for Saving Time 175 Initialization Structures 178 Compound Literals 178 Structure Fields 180 Structures Containing Structures 183 structures containing fields 185 Variants of structure 189 Exercise 190 9 Character Strings 193 String Basics 193 Character Fields 194 Variable Character Length Strings 197 Initialize and Display Character Strings 199 Testing Two Character Strings for Equality 202 Character Input Strings 204 Single-Character Input 206 Null String 211 Escape Characters 215 More on Constant Strings 217 Character Strings, Structures, and fields 218 Better Search Method 221 Character Operations 226 Exercises 229 10 Indicators 233 Indicators and indirection 233 Define variable variable 234 Using pointers in expressions 237 Working with pointer structures 239 Structures containing indicators 241 Linked lists 243 Keyword const and indicators 251 Indicators and functions 252 Indicators and fields 258 Slight branch About optimizing the program 262 It's a field, or is it an indicator? 262 Character String Indicators 264 Constant Character Strings and Indicators 266 Increment and Decrement Operators Revisited 267 Operations on Indicators 271 Function Indicators 272 Indicators and Memory Addresses 273 Exercises 2 2 75 11 Bit Operation 277 Bit Basics 277 Bit Operators 278 Bitwise and Operator 279 Bitwise Inclusive-OR Operator 281 Bitwise Exclusive-OR Operator 282 The Ones Complement Operator 283 Left change operator 285 Right Shift Operator 286 Shift function 286 Rotating Bits 288 Bit Fields 291 Workout 295 12 Preprocessor 297 #define Statement 297 Program Extensibility 301 Program Portability 302 More Advanced Definition Types 304 # Operator 309 ## Operator 310 Declaration #include 311 System contains files 313 conditional compilation 314 #ifdef , #endif, #else and #ifndef Declarations 314 statements #if and #elif preprocessor statements 316 Declaration #undef 317 Exercise 318 13 Extension of data types to the named data type , Type Definitions and conversions data type 319 Enumerated data types 319 Typedef statement 323 Data type Conversions 325 Sign Extension 327 Argument Conversion 328 Exercise 329 14 Working with larger programs 331 Splitting a program into multiple files 331 Compiling multiple source files from command line 332 Communication between modules 334 Externé premenné 334 Statické Versus Extern premenné a funkcie 337 Pomocou hlavičky súbory efektívne 339 Iné nástroje pre prácu s väčšími programami 341 Make Utility 341 CVS Utility 343 Unix Utility: ar, grep, sed, a tak na 343 15 Vstupné a výstupné operácie v C 345 Znak I / O: getchar() a putchar() 346 Formátované I / O: printf() a scanf() 346 Printf() Funkcia 3 46 Funkcia scanf() 353 Vstupné a výstupné operácie so súbormi 358 Presmerovanie vstupno-výstupných súborov do súboru 358 Koniec súboru 361 Špeciálne funkcie pre prácu so súbormi 362 Funkcia fopen 362 Getc() a dať () Funkcie 364 Funkcia fclose() 365 Funkcia feof 367 Funkcie fprintf() a fscanf() 367 Funkcie fgets() a fputs() 367 stdin , stdout, a stderr 368 Exit() Funkcia 369 Premenovanie a odstránenie súborov 370 Cvičenie 371 16 Rôzne a pokročilé funkcie 373 Rôzne jazykové vyhlásenia 373 Goto vyhlásenie 373 Null vyhlásenie 373 Null vyhlásenie 373 374 Práca s odbormi 375 Comma Operátor 378 Typ Kvalifikátory 379 Register Qualification 379 Volatile Qualifier 379 Limit Qualifier 379 Command-line Arguments 380 Dynamic Memory Allocation 384 Calloc() and Malloc() Features 385 Size Operator 385 Free Function 387 Tutorial 389 17 Debugging Programs 391 Debugging with Preprocessor 391 Debugging Programs with GDB 397 Working with Variables 400 Source File Display 401 Controlling Program Execution 402 Getting a Stack Trace 406 Calling Functions and Setting Arrays and Structures 407 Getting Help with gdb Commands 408 Odds and Ends 410 18 Object-Oriented Programming 413 What Is a Object Anyway? 413 Instances and Methods 414 Writing C Program to Work With Fractions 416 Defining Target-C Class to Work With Fractions 417 Defining C++ Classes for Working With Fractions 421 Defining C# Classes for Working With Fractions 417 424 Language C Summary 427 B Standard Library C 471 C Compilation Programs with gcc 495 D Common Programming Errors 499 E Resources 505 TOC, 9780321776419, 7/28/28/2014