

Chapter 6 Data Types Computer Science

The current text provides a clear introduction to Computer Science concepts in a programming environment. It is designed as suitable use in freshman- or introductory level coursework in CS and provides the fundamental concepts as well as abstract theorems for solving computational problems. The Python language serves as a medium for illustrating and demonstrating the concepts.

Learn Computer Programming! ***Available at \$28 for a LIMITED TIME ONLY (Usual Price: \$36)*** This New Book by Best-Selling Author Mr Programmer gets you started programming in Java right away & begins with the java basics, such as how to create, compile, and run a Java program. He then moves on to the keywords, syntax, and constructs that form the core of the Java language. What this book offers... Are you looking for a deeper understanding of the Java programming so that you can write code that is clearer, more correct, more robust, and more reusable? Look no further! This Java Programming book was written as an answer for anyone to pick up Java Programming Language and be productive. How is this book different. You will be able to start from scratch without having any previous exposure to Java programming. By the end of this book, you will have the skills to be a capable programmer, or at least know what is involved with how to read and write java code. Afterward you should be armed with the knowledge required to feel confident in learning more. You should be a general computer skills before you get started. After this you'll know what it takes to at least look at java program without your head spinning.Java is a popular general purpose programming language and computing platform. It is fast, reliable, and secure. According to Oracle, the company that owns Java, Java runs on 3 billion devices worldwide.Considering the number of Java developers, devices running Java, and companies adapting it, it's safe to say that Java will be around for many years to come. Like any programming language, the Java language has its own structure, syntax rules, and programming paradigm. The Java language's programming paradigm is based on the concept of Object Oriented Programming, which is the language's features support. What You Will Learn in This Book: CHAPTER 1) Introduction CHAPTER 2) Getting Started & Setting Programming Environment CHAPTER 3) Basic JAVA Programming Terms CHAPTER 4) Basic of Java Program CHAPTER 5) Variables, Data Types and Keywords CHAPTER 6) Functions and Operators CHAPTER 7) Controlling Execution.Arrays and Loops CHAPTER 8) Object Oriented Programming CHAPTER 9) Exception Handling CHAPTER 10) Algorithms and the Big O Notation CHAPTER 11) Data Structures in Java CHAPTER 12) Network Programming in Java CHAPTER 13) The Complete Software Developer's Career Guide Click the BUY button now and download the book now to start learning Java. Learn it fast and learn it well. Tags: ----- computer programming, computer programming books, learn computer programming, computer programming for Beginners, Java programming for beginners, computer programming for Dummies, computer programming Beginners Guide, computer programming the Complete Reference, computer programming, computer tricks, computer programming step by step, programming for beginners, data analysis, beginner's guide, crash course, database programming, java for dummies, coding, java basics, basic programming, crash course, programming principles, programming computer, ultimate guide, programming for beginners, software development, programming software, software programs, how to program, computer language, computer basics, computing essentials, computer guide, computers books, how to program.

This compact syntax reference covers syntax and parameters central to JSON object definitions. You'll learn the syntax used in the JSON object definition language, logically organized by topical chapters, and getting more advanced as chapters progress, covering structures and file formats which are best for use with HTML5. Furthermore, the JSON Quick Syntax Reference includes the key factors regarding the data footprint optimization work process, the in-lining of CSS and JS files, and why a data footprint optimization work process is important. What You'll Learn • Use the object definition syntax supported in JSON• Define a JSON content production workflow• Gain an understanding of the concepts and principles behind JSON object definitions• Use JSON code snippets and apply them in your web applications• Utilize the NetBeans, Android Studio, and Eclipse IDEs for your JSON coding Who This Book Is For Web developers, Android application developers, and user interface designers.

Locate your place in the exciting field of GIS In existence since 1962, Geographical Information Systems (GIS) are really coming into their own today. And not just in your car's GPS system or your cell phone's tracking capabilities. GIS is finding applications throughout science, government, business, and industry, from regional and community planning, architecture, and transportation to public health, crime mapping, and national defense. Michael DeMers's Fundamentals of Geographic Information, Fourth Edition brings an already essential text up to date, capturing the significant developments in the field and responding to the needs of a diverse set of readers, from geographers to students in a host of other fields. If you are a geographer or new to GIS, get a quick introduction to the "lay of the land" of GIS through the new "Spatial Learner's Permit" section. Then join in the excitement of discovery with GIS databases as you absorb the such concepts and skills as digital geographic data and maps, GIS data models, spatial analysis, measurement and classification, cartographic modeling, and GIS design. Responding to both the needs and technical skills of today's students, this Fourth Edition: * Makes concepts accessible to students from a wide range of backgrounds * Offers more practical and relevant coverage of GIS design and implementation * Reflects the latest changes in GIS applications * Examines in greater depth the underlying computer science behind GIS * Uncovers the most recent developments on GIS research * Expands coverage of the increasingly robust literature on cartographic visualization * Includes Web-based labs and links to current and updated dataset resources Taking an open-ended, hands-on approach that gets you to ask your own questions about the underlying concepts, the Fourth Edition helps you not only master the basics but acquire the active problem-solving skills that are a key component of success in the GIS industry.

Computer Science Illuminated

Write Great Code, Volume 1

Learn Visual Basic 2005 as You Design and Develop a Complete Application

Computer Programming for Absolute Beginners

Build .NET 3.5 Applications with Microsoft's RAD Tool for Business

Swing Update

The popular DISCOVERING COMPUTERS is now revised, based on customer feedback, to reflect the evolving needs of today's Introductory Technology students. This exciting new edition maintains proven hallmarks that ensure students know what they need to be successful digital citizens in college and beyond. This edition offers the latest coverage of today's digital world with an emphasis on enterprise computing, ethics, Internet search skills, mobile computing, various operating systems, browsers and security. Critical thinking and problem-solving exercises throughout the text reinforce key skills, while end-of-chapter activities provide hands-on practice. DISCOVERING COMPUTERS provides the content your students need, presented in a way that ensures their success. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Advanced Database Indexing begins by introducing basic material on storage media, including magnetic disks, RAID systems and tertiary storage such as optical disk and tapes. Typical access methods (e.g. B+ trees, dynamic hash files and secondary key retrieval) are also introduced. The remainder of the book discusses recent advances in indexing and access methods for particular database applications. More specifically, issues such as external sorting, file structures for intervals, temporal access methods, spatial and spatio-temporal indexing, image and multimedia indexing, perfect external hashing methods, parallel access methods, concurrency issues in indexing and parallel external sorting are presented for the first time in a single book. Advanced Database Indexing is an excellent reference for database professionals and may be used as a text for advanced courses on the topic.

Sponsored by the "Österr. Fonds zur Förderung der Wissenschaftlichen Forschung", project nr. P4567

Based on extensive customer feedback, DISCOVERING COMPUTERS ©2014 has been completely reexamined and revised to reflect the evolving needs of the concepts portion of the Introductory Computing course. This exciting new edition maintains many longstanding hallmarks, but is now highly focused on relevancy to provide students only with what they really need to know to be successful digital citizens in college and beyond. To better reflect the importance of certain topics in today's digital world, coverage of enterprise computing, ethics, Internet research skills, mobile computing, operating systems (other than Windows), browsers, security, and Web 2.0 has been expanded and integrated. New critical thinking and problem solving exercises are included in every feature throughout the text, engaging students in regular practice of higher-order thinking skills. In addition, students have more opportunity for hands-on practice with the completely revised end-of-chapter activities. With these enhancements and more, the new DISCOVERING COMPUTERS is an even more engaging teaching and learning tool for your classroom. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Discovering Computers ©2016

Introducing Python

A Multimedia Approach

Fundamentals of Algebraic Specification 1

Understanding the Machine

Programming Visual Basic 2008

Advances in Computers

This 14-chapter introduction to programming with Java at the CS-1 level, uses multimedia-based programs as a means of instruction. Multimedia is a combination of various media such as text, audio, video, images, graphics and animation. With this book, students will learn Java using programs that draw graphics and images, perform animation, read and play music files, display video, and more. This text uses clear explanations and illustrations, and does not require prior programming experience, knowledge of graphics, or other media API's.Programming with Java: A Multimedia Approach covers topics such as variables, data types, literals, operators, creating objects, Java 2D classes, user-defined classes, inheritance, interfaces, exception handling, GUI programming, generics and collections, and multithreaded programming. It also provides introductions to arrays and the scanner class.TuringsCraft CodeLab access is available for adopting professors. Custom CodeLab: CodeLab is a web-based interactive programming exercise service that has been customized to accompany this text. It provides numerous short exercises, each focused on a particular programming idea or language construct. The student types in code and the system immediately judges its correctness, offering hints when the submission is incorrect.

MATLAB Programming for Biomedical Engineers and Scientists, Second Edition provides an easy-to-learn introduction to the fundamentals of computer programming in MATLAB. The book explains the principles of good programming practice, while also demonstrating how to write efficient and robust code that analyzes and visualizes biomedical data. Aimed at the biomedical engineering student, biomedical scientist and medical researcher with little or no computer programming experience, this is an excellent resource for learning the principles and practice of computer programming using MATLAB. The book enables the reader to analyze problems and apply structured design methods to produce elegant, efficient and well-structured program designs, implement a structured program design in MATLAB, write code that makes good use of MATLAB programming features, including control structures, functions and advanced data types, and much more. Presents many real-world biomedical problems and data, showing the practical application of programming concepts Contains two whole chapters dedicated to the practicalities of designing and implementing more complex programs Provides an accompanying website with freely available data and source code for the practical code examples, activities and exercises in the book Includes new chapters on machine learning, engineering mathematics, and expanded coverage of data types

Computer Organization and Design: The Hardware/Software Interface, Sixth Edition, the leading, award-winning textbook from Patterson and Hennessy used by more than 40,000 students per year, continues to present the most comprehensive and readable introduction to this core computer science topic. Improvements to this new release include new sections in each chapter on Domain Specific Architectures (DSA) and updates on all real-world examples that keep it fresh and relevant for a new generation of students. Covers parallelism in-depth, with examples and content highlighting parallel hardware and software topics Includes new sections in each chapter on Domain Specific Architectures (DSA) Discusses and highlights the "Eight Great Ideas" of computer architecture, including Performance via Parallelism, Performance via Pipelining, Performance via Prediction, Design for Moore's Law, Hierarchy of Memories, Abstraction to Simplify Design, Make the Common Case Fast and Dependability via Redundancy

Learn essential computer science concepts and coding techniques to kick-start your programming career

The Art, Philosophy, and Science of Object-oriented Programming

Pascal for Electronic Engineers

Advanced Database Indexing

Modern Computing in Simple Packages

MATLAB Programming For Biomedical Engineers and Scientists

The aim of this book is to present fundamentals of algebraic specifications with respect to the following three aspects: fundamentals in the sense of a carefully motivated introduction to algebraic specifications, which is easy to understand for computer scientists and mathematicians; fundamentals in the sense of mathematical theories which are the basis for precise definitions, constructions, results, and correctness proofs; and fundamentals in the sense of concepts, which are introduced on a conceptual level and formalized in mathematical terms. The book is equally suitableas a text book for graduate courses and as a reference for researchers and system developers.

The subject on Computer Concepts and Programming in C (or with the name Fundamentals of Computer and Programming in C) is one of the core courses in various undergraduate and postgraduate programmes of various institution and universities of India. This book is designed to serve as textbook for those programmes of study. While writing the book. special emphasis is given to keep the language very simple and lucid; level of presentation is kept simple and illustrative so that even an average reader can grasp the subject matter with quite ease.

Even if you're not a programmer, you can quickly learn to write macros, automate tasks, and create custom applications for Office 2007 with Microsoft'sVisual Basic for Applications (VBA) and the in-depth instruction in this comprehensive guide. You'll jump right into the basics of recording and running macros with Office's built-in Macro Recorder, before quickly moving to the essentials of VBA syntax, using loops and functions, building effective code, and programming applications in Word, Excel, PowerPoint, Outlook, and Access. Includes pages of real-world examples and techniques.

Supercharge your creative energy by recognizing and utilizing the power of the "flow" Learn a development cycle you can actually use at work Comprehensive programming project walk-through shows you how to apply the development cycle Project Approach Strategy helps you maintain programming project momentum C# Student Survival Guide helps you tackle any project thrown at you Apply real world programming techniques to produce professional code In-depth coverage of arrays eliminates their mystery Create complex GUIs using System.Windows.Forms components Learn the secrets of thread programming to create multithreaded applications Master the complexities of generic collections and learn how to create generic methods Discover three object-oriented design principles that will greatly improve your software architectures Learn how to design with inheritance and composition to create flexible and reliable software Create well-behaved objects that can be used predictably and reliably in C#.Net applications Learn how to use MSBuild to manage large programming projects Create multitiered database applications with the help of Microsoft's Enterprise Library Master the use of the singleton, factory, model-view-controller, and command software design patterns Reinforce your learning with the help of chapter learning objectives, skill-building exercises, suggested projects, and self-test questions Packed with numerous tables, lots of pictures, and tons of code examples - over 7500 lines of code All code examples were compiled, executed, and tested before being used in the book to ensure quality And much, much, more...!

Advances in Computers

Computer Science with MATHEMATICA ®

Fundamentals of Geographic Information Systems

Visual Basic.NET by Example

Start-to-Finish Visual Basic 2005

Understanding Microcomputers and Applicable Software

Get to grips with the building blocks of programming languages and get started on your programming journey without a computer science degree Key Features Understand the fundamentals of a computer program and apply the concepts you learn to different programming languages Gain the confidence to write your first computer program Explore tips, techniques, and best practices to start coding like a professional programmer Book Description Learning how to code has many advantages, and gaining the right programming skills can have a massive impact on what you can do with your current skill set and the way you advance in your career. This book will be your guide to learning computer programming easily, helping you overcome the difficulties in understanding the major constructs in any mainstream programming language. Computer Programming for Absolute Beginners starts by taking you through the building blocks of any programming language with thorough explanations and relevant examples in pseudocode. You'll understand the relationship between computer programs and programming languages and how code is executed on the computer. The book then focuses on the different types of applications that you can create with your programming knowledge. You'll delve into programming constructs, learning all about statements, operators, variables, and data types. As you advance, you'll see how to control the flow of your programs using control structures and reuse your code using functions. Finally, you'll explore best practices that will help you write code like a pro. By the end of this book, you'll be prepared to learn any programming language and take control of your career by adding coding to your skill set. What you will learn Get to grips with basic programming language concepts such as variables, loops, selection and functions Understand what a program is and how the computer executes it Explore different programming languages and learn about the relationship between source code and executable code Solve problems using various paradigms such as procedural programming, object oriented programming, and functional programming Write high-quality code using several coding conventions and best practices Become well-versed with how to track and fix bugs in your programs Who this book is for This book is for beginners who have never programmed before and are looking to enter the world of programming. This includes anyone who is about to start studying programming and wants a head start, or simply wants to learn how to program on their own.

Make your Web pages stand out above the noise with JavaScript and the expert instruction in this much-anticipated update to the bestselling JavaScript Bible. With renowned JavaScript expert Danny Goodman at your side, you'll get a thorough grounding in JavaScript basics, see how it fits with current Web browsers, and find all the soup-to-nuts detail you'll need. Whether you're a veteran programmer or just starting out, this is the JavaScript book Web developers turn to again and again. Note: CD-ROM/DVD and other supplementary materials are not included as part of eBook file.

Master the basics of solving logic puzzles, and creating algorithms using Swift on Apple platforms. This book is based on the curriculum currently being used in common computer classes. You'll learn to automate algorithmic processes that scale using Swift in the context of iOS, macOS, tvOS, and watchOS. Begin by understanding how to think computationally: to formulate a computational problem and recognize patterns and ways to validate it. Then jump ahead past the abstractions and conceptual work into using code snippets to build frameworks and write code using Xcode and Swift. Once you have frameworks in place, you'll learn to use algorithms and structure data. Finally, you'll see how to bring people into what you've built through a useable UI and how UI and code relate.

What You'll Learn Recognize patterns and use abstractions Build code into reusable frameworks Manage code and share version control Solve logic puzzles Who This Book Is For Young professionals interested in learning computer science from an Apple platform standpoint.

Java For Artists: The Art, Philosophy, and Science of Object-Oriented Programming is a Java programming language text/tradebook that targets beginner and intermediate Java programmers.

Computer Concepts and Programming in C

JavaScript Bible

'A' Level Computing

Computer Organization and Design MIPS Edition

Mastering VBA for Microsoft Office 2007

Equations and Initial Semantics

Provides a comprehensive coverage of the subject, Includes numerous illustrative examples, Demonstrate the development of algorithms in a lucid manner, Demonstrate the implementation of algorithms in a good programming style, Provides challenging programming exercise to test your knowledge gained about the subject, Glossary of terms for ready reference.

Today's programmers are often narrowly trained because the industry moves too fast. That's where Write Great Code, Volume 1: Understanding the Machine comes in. This, the first of four volumes by author Randall Hyde, teaches important concepts of machine organization in a language-independent fashion, giving programmers what they need to know to write great code in any language, without the usual overhead of learning assembly language to master this topic. A solid foundation in software engineering, The Write Great Code series will help programmers make wiser choices with respect to programming statements and data types when writing software.

Ever since Visual Basic was merged into .NET, it's become the core language for creating business applications with Windows. The latest version, VB 2008, is even more useful -- and provides even more incentive for migrating from VB 6. All it lacks is a good book on how to harness its power. Programming Visual Basic 2008 fills the void. Written in a lively and engaging style by a developer who's grown up with Visual Basic, including both VB 6 and VB .NET, this hands-on guide addresses the core topics of the new VB, from basic to complex, with plenty of code examples. Programming Visual Basic 2008 also examines .NET programming from the application level with a chapter-by-chapter plan for developing, documenting, and deploying a full data-driven application. You learn, step-by-step, how to build and deploy a library management system, complete with patron, inventory, and barcode support. The book's broad range of topics include: VB language and its syntax An overview of the .NET Framework Object-oriented development in VB and .NET Generic objects, collections, and nullable types Design and management of software projects Integrating desktop features with Windows Forms Database design with SQL Server 2008 Database interface design with ADO.NET The new LINQ feature, and how to use it within VB and .NET Embedding XML within application source code Encryption and authentication in .NET Interacting with data stored in files and directories Web development using ASP.NET Deploying an application to a user's workstation And much more Programming Visual Basic 2008 is ideal for VB 6 programmers who are ready to move to .NET, as well as VB.NET programmers who wish to improve their project-focused software development skills. Programming novices and developers coming from other languages will find the book valuable because of its language instruction and project design knowledge. Once you finish the book, you will have a firm grasp of VB 2008's core concepts and language elements, and understand how to build VB projects as they were intended -- as complete, cohesive solutions.

Readers learn to maximize the use of mobile devices, make the most of online tools for collaboration and communications, and fully utilize today's Internet capabilities with the latest edition of DISCOVERING COMPUTERS ENHANCED. Learners see how technology skills assist in gaining employment and advancing careers. This edition highlights Web Development, creating a strong web presence, and the latest Windows 10 information. The authors emphasize actionable content with a proven learning structure and practice to reinforce key skills. Self-assessments open each chapter, enabling readers to target study and learn more in less time. DISCOVERING COMPUTERS ENHANCED presents the content needed to succeed in a way that ensures understanding. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Introduction to Computer Science with Applications in Pascal

Enhanced Discovering Computers ©2017

Computer Systems and Programming In 'C'

Recent Trends in Data Type Specification

The Art, Philosophy, And Science Of Object-Oriented Programming, Second Edition

Introduction to Java and Software Design

This book contains a strictly refereed selection of revised full papers chosen from the papers accepted for presentation during the 11th Workshop on Abstract Data Types held jointly with the 8th COMPASS Workshop in Oslo, Norway, in September 1995. The 25 research papers included were chosen from 57 pre-selected workshop presentations; also included are six invited contributions. The volume reports the progress achieved in the area of algebraic specification since the predecessor meeting held in May 1994.

Demonstrates real world programming tasks using Visual Basic within the .NET platform and discusses topics such as compiling and running applications, data conversion, object-oriented programming, and programming the user interface.

" I have never reviewed a book I enjoyed as much as this one. Excellent coverage, perfect for the intended audience. Concise, clear, accurate descriptions. This is a winner. " – Ken Getz, MCW Technologies, LLC Master Visual Basic 2005 by Building a Complete, Production-Quality Application from Start-to-Finish! This book is the fastest, best way for experienced programmers to truly master real-world Visual Basic 2005 development. You won ' t just learn syntax and features: you ' ll build a complete, robust, data-driven application. You ' ll put Visual Basic 2005 to work in solving real business problems, overcoming the practical challenges of building production systems, and you will learn to see Visual Basic 2005 projects as they were intended – as complete, cohesive solutions. Patrick ' s engaging style and crystal-clear explanations will help you stay focused, learn fast, and apply what you ' ve learned. • Master every stage of the application lifecycle and every step in the development process • Walk through all facets of database design and ADO.NET data access • Create advanced Windows applications with Windows Forms and Web applications with ASP.NET 2.0 • Make the most of classes, inheritance, and other object-oriented Visual Basic 2005 features • Effectively utilize data types, generics, error processing, XML, GDI+, and many other language and platform features • Learn how to personalize and restrict your application ' s features based on user preferences • Determine the best way to license, localize, document, deploy, and support your application Start-to-Finish Visual Basic 2005 is the perfect tutorial for existing Visual Basic programmers moving to Visual Basic 2005, programmers moving from other traditional procedural languages, and experienced Visual Basic .NET/2005 programmers who want to deepen their skills in developing entire projects. Tim Patrick is a software architect and developer with nearly 25 years of experience in designing and building custom software solutions. As a Microsoft Certified Solution Developer, he spends his days writing Visual Basic 2005 applications. Tim is the author of The Visual Basic Style Guide and The Visual Basic .NET Style Guide, and co-author of Visual Basic 2005 in a Nutshell and Visual Basic 2005 Cookbook. The companion website (www.awprofessional.com/titles/0321398009) contains the complete software application and source code for the book, plus chapter-specific versions showing each step of the sample project ' s construction. The code was written to work with every edition of Visual Studio 2005, Visual Basic 2005, and SQL Server 2005, including Microsoft ' s free Express editions.

In the last few years there has been a tremendous increase in the number of Pascal courses taught at various levels in schools and universities. Also with the advances made in electronics it is possible today for the majority of people to own or have access to a microcomputer which invariably runs BASIC and Pascal. A number of Pascal implementations exist and in the last two years a new Pascal specification has emerged. This specification has now been accepted as the British Standard BS6192 (1982). This standard also forms the technical content of the proposed International Standard IS07185. In addition to a separate knowledge of electronic engineering and programming a marriage of engineering and computer science is required. The present method of teaching Pascal in the first year of electronic engineering courses is wasteful. Little, if any, benefit is derived from a course that only teaches Pascal and its use with abstract examples. What is required is continued practice in the use of Pascal to solve meaningful problems in the student's chosen discipline. The purpose of this book is to make the use of standard Pascal (BS6192) as natural a tool in solving engineering problems as possible. In order to achieve this aim, only problems in or related to electrical and elec tronic engineering are considered in this book. The many worked examples are of various degrees of difficulty ranging from a simple example to bias a transistor to programs that analyse passive RLC networks or synthesise active circuits.

JSON Quick Syntax Reference

Data Structures & Algorithms using C

Programing & Prob Solving Using C

Java for Artists

Learn Computer Science with Swift

Computation Concepts, Programming Paradigms, Data Management, and Modern Component Architectures with Swift and Playgrounds

Computer Fundamental | Hardware | Number System | Software| Algorithms And Flow Charts | C-Fundamental| Control Statement| Looping Statements | Arrays | Function Program | Pointers| Structure | File Operation | Operations Of Bits | Trial Programs| Subjective And Objective Questions | Common Programmingerrors | Projects In C | Appendix -I To Iii | Bibliography | Index

Fully revised aDesigned for the introductory computing and computer science course, the student-friendly Computer Science Illuminated, Seventh Edition provides students with a solid foundation for further study, and offers non-majors a complete introduction to computing. Fully revised and updated, the Seventh Edition of this best-selling text retains the accessibility and in-depth coverage of previous editions, while incorporating all-new material on cutting-edge issues in computer science. Authored by the award-winning team Neil Dale and John nd updated, the Seventh Edition of the best-selling text Computer Science Illuminated retains the accessibility and in-depth coverage of previous editions, while incorporating all-new material on cutting-edge issues in computer science.

Authored by the award-winning Neil Dale and John Lewis, Computer Science Illuminated's unique and innovative layered approach moves through the levels of computing from an organized, language-neutral perspective.

Understanding the Machine, the first volume in the landmark Write Great Code series by Randall Hyde, explains the underlying mechanics of how a computer works. This, the first volume in Randall Hyde's Write Great Code series, dives into machine organization without the extra overhead of learning assembly language programming. Written for high-level language programmers, Understanding the Machine fills in the low-level details of machine organization that are often left out of computer science and engineering courses. Learn: • How the machine represents numbers, strings, and high-level data structures, so you'll know the inherent cost of using them. • How to organize your data, so the machine can access it efficiently. • How the CPU operates, so you can write code that works the way the machine does. • How I/O devices operate, so you can maximize your application's performance when accessing those devices. • How to best use the memory hierarchy to produce the fastest possible programs. Great code is efficient code. But before you can write truly efficient code, you must understand how computer systems execute programs and how abstractions in programming languages map to the machine's low-level hardware. After all, compilers don't write the best machine code; programmers do. This book gives you the foundation upon which all great software is built. NEW IN THIS EDITION, COVERAGE OF: • Programming languages like Swift and Java • Code generation on modern 64-bit CPUs • ARM processors on mobile phones and tablets • Newer peripheral devices • Larger memory systems and large-scale SSDs

Easy to understand and fun to read, this updated edition of Introducing Python is ideal for beginning programmers as well as those new to the language. Author Bill Lubanovic takes you from the basics to more involved and varied topics, mixing tutorials with cookbook-style code recipes to explain concepts in Python 3. End-of-chapter exercises help you practice what you've learned. You'll gain a strong foundation in the language, including best practices for testing, debugging, code reuse, and other development tips. This book also shows you how to use Python for applications in business, science, and the arts, using various Python tools and open source packages.

C# For Artists

Theory and Practice for Science, Mathematics, and Engineering

Pascal Programming Fundamentals

Introduction to Programming Concepts with Case Studies in Python

Bibliography on Abstract Data Types

Programming with Java

This introductory course shows scientists and engineers how Mathematica can be used to do scientific computations.

Introduction to Java and Software Design breaks the current paradigms for teaching Java and object-oriented programming in a first-year programming course. The Dale author team has developed a unique way of teaching object-oriented programming. They foster sound object-oriented design by teaching students how to brainstorm, use filtering scenarios, CRC cards, and responsibility algorithms. The authors also present functional design as a way of writing algorithms for the class responsibilities that are assigned in the object-oriented design. Click here for downloadable student files This book has been developed from the ground up to be a Java text, rather than a Java translation of prior works. The text uses real Java I/O classes and treats event handling as a fundamental control structure that is introduced right from the beginning. The authors carefully guide the student through the process of declaring a reference variable, instantiating an object and assigning it to the variable. Students will gradually develop a complete and comprehensive understanding of what an object is, how it works, and what constitutes a well-designed class interface.

A textbook for 'A' Level computing organised in modular format for new AQA specification.

This book is designed for the course on Programming and Problem Solving through C Language offered to students taking the DOEACC s O level certificate examination. The book will also be useful to the Diploma students who take a paper on C Programming.

11th Workshop on Specification of Abstract Data Types, Joint with the 8th COMPASS Workshop, Oslo, Norway, September 19 – 23, 1995, Selected Papers

The Hardware/Software Interface

Learn Computer Programming

Fundamentals of Computing and Programming in C

Write Great Code, Volume 1, 2nd Edition

Enhanced Discovering Computers

Fundamentals of Computing and Programming in C is specifically designed for first year engineering students covering the syllabus of various universities. It provides a comprehensive introduction to computers and programming using C language. The topics are covered sequentially and blended with examples to enable students to understand the subject effectively and imbibe the logical thinking required for software industry applications. KEY FEATURES • Foundations of computers • Contains logical sequence of examples for easy learning • Efficient method of program design • Plenty of solved examples • Covers simple and advanced programming in C