

Code Complete Developer Best Practices

Excel VBA Programming For Dummies Refactoring I.M. Wright's Hard Code Oracle PL/SQL Best Practices Code Complete, 2nd Edition Software Project Survival Guide The Elements of Programming Style The Clean Coder Perl Best Practices Code Complete 97 Things Every Programmer Should Know How We Test Software at Microsoft Professional Software Development The Pragmatic Programmer More Effective Agile Adaptive Code Introduction to Programming with C++ for Engineers Rapid Development The Developer's Code Working Effectively with Legacy Code Clean Code Software Architect's Handbook Practices of an Agile Developer Effective Programming Soft Skills Code Craft Code API Design for C++ Solid Code Python Clean C++ The Art of Readable Code Visual Models for Software Requirements Beautiful Code The Practice of Programming Ruby Best Practices Software Estimation Writing Secure Code The Robert C. Martin Clean Code Collection (Collection) Rapid Development

Excel VBA Programming For Dummies

A comprehensive guide to exploring software architecture concepts and implementing best practices Key Features Enhance your skills to grow your career as a software architect Design efficient software architectures using patterns and best practices Learn how software architecture relates to an organization as well as software development methodology Book Description The Software Architect's Handbook is a comprehensive guide to help developers, architects, and senior programmers advance their career in the software architecture domain. This book takes you through all the important concepts, right from design principles to different considerations at various stages of your career in software architecture. The book begins by covering the fundamentals, benefits, and purpose of software architecture. You will discover how software architecture relates to an organization, followed by identifying its significant quality attributes. Once you have covered the basics, you will explore design patterns, best practices, and paradigms for efficient software development. The book discusses which factors you need to consider for performance and security enhancements. You will learn to write documentation for your architectures and make appropriate decisions when considering DevOps. In addition to this, you will explore how to design legacy applications before understanding how to create software architectures that evolve as the market, business requirements, frameworks, tools, and best practices change over time. By the end of this book, you will not only have studied software architecture concepts but also built the soft skills necessary to grow in this field. What you will learn Design software architectures using patterns and best practices Explore the different considerations for designing software architecture Discover what it takes to continuously improve as a software architect Create loosely coupled systems that can support change Understand DevOps and how it affects software architecture Integrate, refactor, and re-architect legacy applications Who this book is for The Software Architect's Handbook is for you if you are a software architect, chief technical officer (CTO), or senior developer looking to gain a firm grasp of software architecture.

Refactoring

Widely considered one of the best practical guides to programming, Steve McConnell's original *CODE COMPLETE* has been helping developers write better software for more than a decade. Now this classic book has been fully updated and revised with leading-edge practices—and hundreds of new code samples—illustrating the art and science of software construction. Capturing the body of knowledge available from research, academia, and everyday commercial practice, McConnell synthesizes the most effective techniques and must-know principles into clear, pragmatic guidance. No matter what your experience level, development environment, or project size, this book will inform and stimulate your thinking—and help you build the highest quality code.

I.M. Wright's Hard Code

Take your Excel programming skills to the next level To take Excel to the next level, you need to understand and implement the power of Visual Basic for Applications (VBA). *Excel VBA Programming For Dummies* introduces you to a wide array of new Excel options, beginning with the most important tools and operations for the Visual Basic Editor. Inside, you'll find an overview of the essential elements and concepts for programming with Excel. In no time, you'll discover techniques for handling errors and exterminating bugs, working with range objects and controlling program flow, and much more. With friendly advice on the easiest ways to develop custom dialog boxes, toolbars, and menus, readers will be creating Excel applications custom fit to their unique needs! Fully updated for the new Excel 2019 Step-by-step instructions for creating VBA macros to maximize productivity Guidance on customizing your applications so they work the way you want All sample programs, VBA code, and worksheets are available at dummies.com Beginning VBA programmers rejoice! This easy-to-follow book makes it easier than ever to excel at Excel VBA!

Oracle PL/SQL Best Practices

Presents practical advice on the disciplines, techniques, tools, and practices of computer programming and how to approach software development with a sense of pride, honor, and self-respect.

Code Complete, 2nd Edition

Corporate and commercial software-development teams all want solutions for one important problem—how to get their high-pressure development schedules under control. In *RAPID DEVELOPMENT*, author Steve McConnell addresses that concern head-on with overall strategies, specific best practices, and valuable tips that help shrink and control development schedules and keep projects moving. Inside, you'll find: A rapid-development strategy that can be applied to any project and the best practices to make that strategy work Candid discussions of great and not-so-great rapid-development practices—estimation, prototyping, forced overtime, motivation, teamwork, rapid-development languages, risk management, and many others A list of classic mistakes to avoid for rapid-development projects, including creeping requirements, shortchanged quality, and silver-bullet syndrome Case studies that vividly illustrate what can go wrong, what can go right, and how to tell

which direction your project is going **RAPID DEVELOPMENT** is the real-world guide to more efficient applications development.

Software Project Survival Guide

Looks at a successful software project and provides details for software development for clients using object-oriented design and programming.

The Elements of Programming Style

It may surprise you to learn that Microsoft employs as many software testers as developers. Less surprising is the emphasis the company places on the testing discipline—and its role in managing quality across a diverse, 150+ product portfolio. This book—written by three of Microsoft’s most prominent test professionals—shares the best practices, tools, and systems used by the company’s 9,000-strong corps of testers. Learn how your colleagues at Microsoft design and manage testing, their approach to training and career development, and what challenges they see ahead. Most important, you’ll get practical insights you can apply for better results in your organization. Discover how to: Design effective tests and run them throughout the product lifecycle Minimize cost and risk with functional tests, and know when to apply structural techniques Measure code complexity to identify bugs and potential maintenance issues Use models to generate test cases, surface unexpected application behavior, and manage risk Know when to employ automated tests, design them for long-term use, and plug into an automation infrastructure Review the hallmarks of great testers—and the tools they use to run tests, probe systems, and track progress efficiently Explore the challenges of testing services vs. shrink-wrapped software

The Clean Coder

Project managers, technical leads, and Windows programmers throughout the industry share an important concern--how to get their development schedules under control. Rapid Development addresses that concern head-on with philosophy, techniques, and tools that help shrink and control development schedules and keep projects moving. The style is friendly and conversational--and the content is impressive.

Perl Best Practices

Write code that can adapt to changes. By applying this book’s principles, you can create code that accommodates new requirements and unforeseen scenarios without significant rewrites. Gary McLean Hall describes Agile best practices, principles, and patterns for designing and writing code that can evolve more quickly and easily, with fewer errors, because it doesn’t impede change. Now revised, updated, and expanded, Adaptive Code, Second Edition adds indispensable practical insights on Kanban, dependency inversion, and creating reusable abstractions. Drawing on over a decade of Agile consulting and development experience, McLean Hall has updated his best-seller with deeper coverage of unit testing, refactoring, pure dependency injection, and more. Master

powerful new ways to:

- Write code that enables and complements Scrum, Kanban, or any other Agile framework
- Develop code that can survive major changes in requirements
- Plan for adaptability by using dependencies, layering, interfaces, and design patterns
- Perform unit testing and refactoring in tandem, gaining more value from both
- Use the “golden master” technique to make legacy code adaptive
- Build SOLID code with single-responsibility, open/closed, and Liskov substitution principles
- Create smaller interfaces to support more-diverse client and architectural needs
- Leverage dependency injection best practices to improve code adaptability
- Apply dependency inversion with the Stairway pattern, and avoid related anti-patterns

About You This book is for programmers of all skill levels seeking more-practical insight into design patterns, SOLID principles, unit testing, refactoring, and related topics. Most readers will have programmed in C#, Java, C++, or similar object-oriented languages, and will be familiar with core procedural programming techniques.

Code Complete

What others in the trenches say about *The Pragmatic Programmer* “The cool thing about this book is that it’s great for keeping the programming process fresh. The book helps you to continue to grow and clearly comes from people who have been there.” —Kent Beck, author of *Extreme Programming Explained: Embrace Change* “I found this book to be a great mix of solid advice and wonderful analogies!” —Martin Fowler, author of *Refactoring* and *UML Distilled* “I would buy a copy, read it twice, then tell all my colleagues to run out and grab a copy. This is a book I would never loan because I would worry about it being lost.” —Kevin Ruland, Management Science, MSG-Logistics “The wisdom and practical experience of the authors is obvious. The topics presented are relevant and useful. By far its greatest strength for me has been the outstanding analogies—tracer bullets, broken windows, and the fabulous helicopter-based explanation of the need for orthogonality, especially in a crisis situation. I have little doubt that this book will eventually become an excellent source of useful information for journeymen programmers and expert mentors alike.” —John Lakos, author of *Large-Scale C++ Software Design* “This is the sort of book I will buy a dozen copies of when it comes out so I can give it to my clients.” —Eric Vought, Software Engineer “Most modern books on software development fail to cover the basics of what makes a great software developer, instead spending their time on syntax or technology where in reality the greatest leverage possible for any software team is in having talented developers who really know their craft well. An excellent book.” —Pete McBreen, Independent Consultant “Since reading this book, I have implemented many of the practical suggestions and tips it contains. Across the board, they have saved my company time and money while helping me get my job done quicker! This should be a desktop reference for everyone who works with code for a living.” —Jared Richardson, Senior Software Developer, iRenaissance, Inc. “I would like to see this issued to every new employee at my company.” —Chris Cleeland, Senior Software Engineer, Object Computing, Inc. “If I’m putting together a project, it’s the authors of this book that I want. . . . And failing that I’d settle for people who’ve read their book.” —Ward Cunningham

Straight from the programming trenches, *The Pragmatic Programmer* cuts through the increasing specialization and technicalities of modern software development to examine the core process--taking a requirement and producing working, maintainable code that

delights its users. It covers topics ranging from personal responsibility and career development to architectural techniques for keeping your code flexible and easy to adapt and reuse. Read this book, and you'll learn how to Fight software rot; Avoid the trap of duplicating knowledge; Write flexible, dynamic, and adaptable code; Avoid programming by coincidence; Bullet-proof your code with contracts, assertions, and exceptions; Capture real requirements; Test ruthlessly and effectively; Delight your users; Build teams of pragmatic programmers; and Make your developments more precise with automation. Written as a series of self-contained sections and filled with entertaining anecdotes, thoughtful examples, and interesting analogies, The Pragmatic Programmer illustrates the best practices and major pitfalls of many different aspects of software development. Whether you're a new coder, an experienced programmer, or a manager responsible for software projects, use these lessons daily, and you'll quickly see improvements in personal productivity, accuracy, and job satisfaction. You'll learn skills and develop habits and attitudes that form the foundation for long-term success in your career. You'll become a Pragmatic Programmer.

97 Things Every Programmer Should Know

Users can dramatically improve the design, performance, and manageability of object-oriented code without altering its interfaces or behavior. "Refactoring" shows users exactly how to spot the best opportunities for refactoring and exactly how to do it, step by step.

How We Test Software at Microsoft

Provides information on designing APIs and domain-specific language, writing readable code, and working with functional programming ideas with the Ruby programming language.

Professional Software Development

ABOUT THE BOOK Jeff Atwood began the Coding Horror blog in 2004, and is convinced that it changed his life. He needed a way to keep track of software development over time - whatever he was thinking about or working on. He researched subjects he found interesting, then documented his research with a public blog post, which he could easily find and refer to later. Over time, increasing numbers of blog visitors found the posts helpful, relevant and interesting. Now, approximately 100,000 readers visit the blog per day and nearly as many comment and interact on the site. Effective Programming: More Than Writing Code is your one-stop shop for all things programming. Jeff writes with humor and understanding, allowing for both seasoned programmers and newbies to appreciate the depth of his research. From such posts as "The Programmer's Bill of Rights" and "Why Cant Programmers Program?" to "Working With the Chaos Monkey," this book introduces the importance of writing responsible code, the logistics involved, and how people should view it more as a lifestyle than a career. TABLE OF CONTENTS - Introduction - The Art of Getting Shit Done - Principles of Good Programming - Hiring Programmers the Right Way - Getting Your Team to Work Together - The Batcave: Effective Workspaces for Programmers - Designing

With the User in Mind - Security Basics: Protecting Your Users' Data - Testing Your Code, So it Doesn't Suck More Than it Has To - Building, Managing and Benefiting from a Community - Marketing Weasels and How Not to Be One - Keeping Your Priorities Straight EXCERPT FROM THE BOOK As a software developer, you are your own worst enemy. The sooner you realize that, the better off you'll be. I know you have the best of intentions. We all do. We're software developers; we love writing code. It's what we do. We never met a problem we couldn't solve with some duct tape, a jury-rigged coat hanger and a pinch of code. But Wil Shipley argues that we should rein in our natural tendencies to write lots of code: The fundamental nature of coding is that our task, as programmers, is to recognize that every decision we make is a trade-off. To be a master programmer is to understand the nature of these trade-offs, and be conscious of them in everything we write. In coding, you have many dimensions in which you can rate code: Brevity of code Featurefulness Speed of execution Time spent coding Robustness Flexibility Now, remember, these dimensions are all in opposition to one another. You can spend three days writing a routine which is really beautiful and fast, so you've gotten two of your dimensions up, but you've spent three days, so the "time spent coding" dimension is way down. So, when is this worth it? How do we make these decisions? The answer turns out to be very sane, very simple, and also the one nobody, ever, listens to: Start with brevity. Increase the other dimensions as required by testing. I couldn't agree more. I've given similar advice when I exhorted developers to Code Smaller. And I'm not talking about a reductio ad absurdum contest where we use up all the clever tricks in our books to make the code fit into less physical space. I'm talking about practical, sensible strategies to reduce the volume of code an individual programmer has to read to understand how a program works. Here's a trivial little example of what I'm talking about: `if (s == String.Empty) if (s == "")` It seems obvious to me that the latter case is buy the book to read more!

The Pragmatic Programmer

For most software developers, coding is the fun part. The hard bits are dealing with clients, peers, and managers and staying productive, achieving financial security, keeping yourself in shape, and finding true love. This book is here to help. *Soft Skills: The Software Developer's Life Manual* is a guide to a well-rounded, satisfying life as a technology professional. In it, developer and life coach John Sonmez offers advice to developers on important subjects like career and productivity, personal finance and investing, and even fitness and relationships. Arranged as a collection of 71 short chapters, this fun listen invites you to dip in wherever you like. A "Taking Action" section at the end of each chapter tells you how to get quick results. *Soft Skills* will help make you a better programmer, a more valuable employee, and a happier, healthier person.

More Effective Agile

A complete textbook and reference for engineers to learn the fundamentals of computer programming with modern C++ *Introduction to Programming with C++ for Engineers* is an original presentation teaching the fundamentals of computer programming and modern C++ to engineers and engineering students. Professor Cyganek, a highly regarded expert in his field, walks users through basics of data

structures and algorithms with the help of a core subset of C++ and the Standard Library, progressing to the object-oriented domain and advanced C++ features, computer arithmetic, memory management and essentials of parallel programming, showing with real world examples how to complete tasks. He also guides users through the software development process, good programming practices, not shunning from explaining low-level features and the programming tools. Being a textbook, with the summarizing tables and diagrams the book becomes a highly useful reference for C++ programmers at all levels. Introduction to Programming with C++ for Engineers teaches how to program by: Guiding users from simple techniques with modern C++ and the Standard Library, to more advanced object-oriented design methods and language features Providing meaningful examples that facilitate understanding of the programming techniques and the C++ language constructions Fostering good programming practices which create better professional programmers Minimizing text descriptions, opting instead for comprehensive figures, tables, diagrams, and other explanatory material Granting access to a complementary website that contains example code and useful links to resources that further improve the reader's coding ability Including test and exam question for the reader's review at the end of each chapter Engineering students, students of other sciences who rely on computer programming, and professionals in various fields will find this book invaluable when learning to program with C++.

Adaptive Code

Are you tired of your Python code turning out wrong? Are you forever finding it difficult to read your code, to spot where the problems are because it is, quite frankly, a mess? Are you fed up with reading so-called Best Practice guides that leave you more confused than you were when you started? This book "Python: Best Practices to Programming Code with Python," will give you a straightforward guide on how to write better Python code. With this book, you will learn: General Concepts of Python Coding Python Coding Recommendations The best way to layout Python Code All about idioms, or how to write code How to write comments Writing Conventions to follow How to write Function and Method Arguments And much, much more! Added Benefits of owning this book: Gain a better grasp of efficient and effective Python code to achieve programming success Speed up your programming abilities by avoiding time-wasting mistakes Gain the most important Best Practice concepts in your path towards Python programming mastery! By reading my Best Practice guide for Python coding, you will learn the best way to write better code, code that is readable and that others can understand. The value of this is self-evident in that, when you do write a program based on Python code, it will run smoothly and with no errors. That is what programming success is all about. Take action today and download this book for a limited time discount of only \$13.38! Scroll to the top of the page and select the "Buy now" button.

Introduction to Programming with C++ for Engineers

Get best-in-class engineering practices to help you write more-robust, bug-free code. Two Microsoft .NET development experts share real-world examples and proven methods for optimizing the software development life cycle—from avoiding costly programming pitfalls to making your development team more efficient.

Managed code developers at all levels will find design, prototyping, implementation, debugging, and testing tips to boost the quality of their code—today. Optimize each stage of the development process—from design to testing—and produce higher-quality applications. Use metaprogramming to reduce code complexity, while increasing flexibility and maintainability. Treat performance as a feature—and manage it throughout the development life cycle. Apply best practices for application scalability. Employ preventative security measures to ward off malicious attacks. Practice defensive programming to catch bugs before run time. Incorporate automated builds, code analysis, and testing into the daily engineering process. Implement better source-control management and check-in procedures. Establish a quality-driven, milestone-based project rhythm—and improve your results!

Rapid Development

A guide to writing computer code covers such topics as variable naming, presentation style, error handling, and security.

The Developer's Code

Presents guidelines on the art of coding with Perl, covering such topics as naming conventions, data and control structures, program decomposition, interface design, and error handling.

Working Effectively with Legacy Code

As programmers, we've all seen source code that's so ugly and buggy it makes our brain ache. Over the past five years, authors Dustin Boswell and Trevor Foucher have analyzed hundreds of examples of "bad code" (much of it their own) to determine why they're bad and how they could be improved. Their conclusion? You need to write code that minimizes the time it would take someone else to understand it—even if that someone else is you. This book focuses on basic principles and practical techniques you can apply every time you write code. Using easy-to-digest code examples from different languages, each chapter dives into a different aspect of coding, and demonstrates how you can make your code easy to understand. Simplify naming, commenting, and formatting with tips that apply to every line of code. Refine your program's loops, logic, and variables to reduce complexity and confusion. Attack problems at the function level, such as reorganizing blocks of code to do one task at a time. Write effective test code that is thorough and concise—as well as readable. "Being aware of how the code you create affects those who look at it later is an important part of developing software. The authors did a great job in taking you through the different aspects of this challenge, explaining the details with instructive examples." —Michael Hunger, passionate Software Developer

Clean Code

API Design for C++ provides a comprehensive discussion of Application Programming Interface (API) development, from initial design through

implementation, testing, documentation, release, versioning, maintenance, and deprecation. It is the only book that teaches the strategies of C++ API development, including interface design, versioning, scripting, and plug-in extensibility. Drawing from the author's experience on large scale, collaborative software projects, the text offers practical techniques of API design that produce robust code for the long term. It presents patterns and practices that provide real value to individual developers as well as organizations. API Design for C++ explores often overlooked issues, both technical and non-technical, contributing to successful design decisions that product high quality, robust, and long-lived APIs. It focuses on various API styles and patterns that will allow you to produce elegant and durable libraries. A discussion on testing strategies concentrates on automated API testing techniques rather than attempting to include end-user application testing techniques such as GUI testing, system testing, or manual testing. Each concept is illustrated with extensive C++ code examples, and fully functional examples and working source code for experimentation are available online. This book will be helpful to new programmers who understand the fundamentals of C++ and who want to advance their design skills, as well as to senior engineers and software architects seeking to gain new expertise to complement their existing talents. Three specific groups of readers are targeted: practicing software engineers and architects, technical managers, and students and educators. The only book that teaches the strategies of C++ API development, including design, versioning, documentation, testing, scripting, and extensibility. Extensive code examples illustrate each concept, with fully functional examples and working source code for experimentation available online. Covers various API styles and patterns with a focus on practical and efficient designs for large-scale long-term projects.

Software Architect's Handbook

Tap into the wisdom of experts to learn what every programmer should know, no matter what language you use. With the 97 short and extremely useful tips for programmers in this book, you'll expand your skills by adopting new approaches to old problems, learning appropriate best practices, and honing your craft through sound advice. With contributions from some of the most experienced and respected practitioners in the industry--including Michael Feathers, Pete Goodliffe, Diomidis Spinellis, Cay Horstmann, Verity Stob, and many more--this book contains practical knowledge and principles that you can apply to all kinds of projects. A few of the 97 things you should know: "Code in the Language of the Domain" by Dan North "Write Tests for People" by Gerard Meszaros "Convenience Is Not an -ility" by Gregor Hohpe "Know Your IDE" by Heinz Kabutz "A Message to the Future" by Linda Rising "The Boy Scout Rule" by Robert C. Martin (Uncle Bob) "Beware the Share" by Udi Dahan

Practices of an Agile Developer

Apply best practices for capturing, analyzing, and implementing software requirements through visual models—and deliver better results for your business. The authors—experts in eliciting and visualizing requirements—walk you through a simple but comprehensive language of visual models that has been used on hundreds of real-world, large-scale projects. Build your fluency with core

concepts—and gain essential, scenario-based context and implementation advice—as you progress through each chapter. Transcend the limitations of text-based requirements data using visual models that more rigorously identify, capture, and validate requirements Get real-world guidance on best ways to use visual models—how and when, and ways to combine them for best project outcomes Practice the book’s concepts as you work through chapters Change your focus from writing a good requirement to ensuring a complete system

Effective Programming

How do the experts solve difficult problems in software development? In this unique and insightful book, leading computer scientists offer case studies that reveal how they found unusual, carefully designed solutions to high-profile projects. You will be able to look over the shoulder of major coding and design experts to see problems through their eyes. This is not simply another design patterns book, or another software engineering treatise on the right and wrong way to do things. The authors think aloud as they work through their project's architecture, the tradeoffs made in its construction, and when it was important to break rules. This book contains 33 chapters contributed by Brian Kernighan, KarlFogel, Jon Bentley, Tim Bray, Elliotte Rusty Harold, Michael Feathers,Alberto Savoia, Charles Petzold, Douglas Crockford, Henry S. Warren,Jr., Ashish Gulhati, Lincoln Stein, Jim Kent, Jack Dongarra and PiotrLuszczek, Adam Kolawa, Greg Kroah-Hartman, Diomidis Spinellis, AndrewKuchling, Travis E. Oliphant, Ronald Mak, Rogerio Atem de Carvalho andRafael Monnerat, Bryan Cantrill, Jeff Dean and Sanjay Ghemawat, SimonPeyton Jones, Kent Dybvig, William Otte and Douglas C. Schmidt, AndrewPatzner, Andreas Zeller, Yukihiro Matsumoto, Arun Mehta, TV Raman,Laura Wingerd and Christopher Seiwald, and Brian Hayes. Beautiful Code is an opportunity for master coders to tell their story. All author royalties will be donated to Amnesty International.

Soft Skills

In this book, Steven Feuerstein, widely recognized as one of the world's experts on the Oracle PL/SQL language, distills his many years of programming, writing, and teaching about PL/SQL into a set of PL/SQL language "best practices"--rules for writing code that is readable, maintainable, and efficient. Too often, developers focus on simply writing programs that run without errors--and ignore the impact of poorly written code upon both system performance and their ability (and their colleagues' ability) to maintain that code over time.Oracle PL/SQL Best Practices is a concise, easy-to-use reference to Feuerstein's recommendations for excellent PL/SQL coding. It answers the kinds of questions PL/SQL developers most frequently ask about their code: How should I format my code? What naming conventions, if any, should I use? How can I write my packages so they can be more easily maintained? What is the most efficient way to query information from the database? How can I get all the developers on my team to handle errors the same way? The book contains 120 best practices, divided by topic area. It's full of advice on the program development process, coding style, writing SQL in PL/SQL, data structures, control structures, exception handling, program and package construction, and built-in packages. It also contains a handy, pull-out quick reference card. As a helpful supplement to the text, code examples demonstrating

each of the best practices are available on the O'Reilly web site. Oracle PL/SQL Best Practices is intended as a companion to O'Reilly's larger Oracle PL/SQL books. It's a compact, readable reference that you'll turn to again and again--a book that no serious developer can afford to be without.

Code Craft

You're already a great coder, but awesome coding chops aren't always enough to get you through your toughest projects. You need these 50+ nuggets of wisdom. Veteran programmers: reinvigorate your passion for developing web applications. New programmers: here's the guidance you need to get started. With this book, you'll think about your job in new and enlightened ways. The Developer's Code isn't about the code you write, it's about the code you live by. There are no trite superlatives here. Packed with lessons learned from more than a decade of software development experience, author Ka Wai Cheung takes you through the programming profession from nearly every angle to uncover ways of sustaining a healthy connection with your work. You'll see how to stay productive even on the longest projects. You'll create a workflow that works with you, not against you. And you'll learn how to deal with clients whose goals don't align with your own. If you don't handle them just right, issues such as these can crush even the most seasoned, motivated developer. But with the right approach, you can transcend these common problems and become the professional developer you want to be. In more than 50 nuggets of wisdom, you'll learn: Why many traditional approaches to process and development roles in this industry are wrong - and how to sniff them out. Why you must always say "no" to the software pet project and open-ended timelines. How to incorporate code generation into your development process, and why its benefits go far beyond just faster code output. What to do when your client or end user disagrees with an approach you believe in. How to pay your knowledge forward to future generations of programmers through teaching and evangelism. If you're in this industry for the long run, you'll be coming back to this book again and again.

Code

Covers topics such as the importance of secure systems, threat modeling, canonical representation issues, solving database input, denial-of-service attacks, and security code reviews and checklists.

API Design for C++

Write maintainable, extensible, and durable software with modern C++. This book is a must for every developer, software architect, or team leader who is interested in good C++ code, and thus also wants to save development costs. If you want to teach yourself about writing clean C++, Clean C++ is exactly what you need. It is written to help C++ developers of all skill levels and shows by example how to write understandable, flexible, maintainable, and efficient C++ code. Even if you are a seasoned C++ developer, there are nuggets and data points in this book that you will find useful in your work. If you don't take care with your code, you can produce a large, messy, and unmaintainable beast in any programming language.

However, C++ projects in particular are prone to be messy and tend to slip into bad habits. Lots of C++ code that is written today looks as if it was written in the 1980s. It seems that C++ developers have been forgotten by those who preach Software Craftsmanship and Clean Code principles. The Web is full of bad, but apparently very fast and highly optimized C++ code examples, with cruel syntax that completely ignores elementary principles of good design and well-written code. This book will explain how to avoid this scenario and how to get the most out of your C++ code. You'll find your coding becomes more efficient and, importantly, more fun. What You'll Learn Gain sound principles and rules for clean coding in C++ Carry out test driven development (TDD) Discover C++ design patterns and idioms Apply these design patterns Who This Book Is For Any C++ developer and software engineer with an interest in producing better code.

Solid Code

Often referred to as the “black art” because of its complexity and uncertainty, software estimation is not as difficult or puzzling as people think. In fact, generating accurate estimates is straightforward—once you understand the art of creating them. In his highly anticipated book, acclaimed author Steve McConnell unravels the mystery to successful software estimation—distilling academic information and real-world experience into a practical guide for working software professionals. Instead of arcane treatises and rigid modeling techniques, this guide highlights a proven set of procedures, understandable formulas, and heuristics that individuals and development teams can apply to their projects to help achieve estimation proficiency. Discover how to: Estimate schedule and cost—or estimate the functionality that can be delivered within a given time frame Avoid common software estimation mistakes Learn estimation techniques for you, your team, and your organization * Estimate specific project activities—including development, management, and defect correction Apply estimation approaches to any type of project—small or large, agile or traditional Navigate the shark-infested political waters that surround project estimates When many corporate software projects are failing, McConnell shows you what works for successful software estimation.

Python

With the same insight and authority that made their book *The Unix Programming Environment* a classic, Brian Kernighan and Rob Pike have written *The Practice of Programming* to help make individual programmers more effective and productive. The practice of programming is more than just writing code. Programmers must also assess tradeoffs, choose among design alternatives, debug and test, improve performance, and maintain software written by themselves and others. At the same time, they must be concerned with issues like compatibility, robustness, and reliability, while meeting specifications. *The Practice of Programming* covers all these topics, and more. This book is full of practical advice and real-world examples in C, C++, Java, and a variety of special-purpose languages. It includes chapters on: debugging: finding bugs quickly and methodically testing: guaranteeing that software works correctly and reliably performance: making programs faster and more compact portability: ensuring that programs run everywhere without change design: balancing goals and constraints to decide which algorithms and data structures are best interfaces: using abstraction and

information hiding to control the interactions between components style: writing code that works well and is a pleasure to read notation: choosing languages and tools that let the machine do more of the work Kernighan and Pike have distilled years of experience writing programs, teaching, and working with other programmers to create this book. Anyone who writes software will profit from the principles and guidance in *The Practice of Programming* .

Clean C++

bull; Renowned software expert Steve McConnell presents his latest thoughts on the condition of the software engineering profession bull; Helps software developers regain the sight of the big-picture reasons why their jobs matter bull; A thinking man's guide to the current state of software

The Art of Readable Code

Get the brutal truth about coding, testing, and project management—from a Microsoft insider who tells it like it is. I. M. Wright's deliberately provocative column "Hard Code" has been sparking debate amongst thousands of engineers at Microsoft for years. And now (despite our better instincts), we're making his opinions available to everyone. In this collection of over 80 columns, Eric Brechner's alter ego pulls no punches with his candid commentary and best practice solutions to the issues that irk him the most. He dissects the development process, examines tough team issues, and critiques how the software business is run, with the added touch of clever humor and sardonic wit. His ideas aren't always popular (not that he cares), but they do stimulate discussion and imagination needed to drive software excellence. Get the unvarnished truth on how to: Improve software quality and value—from design to security Realistically manage project schedules, risks, and specs Trim the fat from common development inefficiencies Apply process improvement methods—without being an inflexible fanatic Drive your own successful, satisfying career Don't be a dictator—develop and manage a thriving team! Companion Web site includes: Agile process documents Checklists, templates, and other resources

Visual Models for Software Requirements

In this comprehensive yet accessible overview for software leaders, the author presents an impactful, action-oriented prescription-covering the practical considerations needed to ensure you reap the full benefits of effective Agile

Beautiful Code

The Robert C. Martin Clean Code Collection consists of two bestselling eBooks: *Clean Code: A Handbook of Agile Software Craftmanship* *The Clean Coder: A Code of Conduct for Professional Programmers* In *Clean Code*, legendary software expert Robert C. Martin has teamed up with his colleagues from Object Mentor to distill their best agile practice of cleaning code “on the fly” into a book that will instill within you the values of a software craftsman and make you a better programmer--but only if you work at it. You will be challenged to think about

what's right about that code and what's wrong with it. More important, you will be challenged to reassess your professional values and your commitment to your craft. In *The Clean Coder*, Martin introduces the disciplines, techniques, tools, and practices of true software craftsmanship. This book is packed with practical advice--about everything from estimating and coding to refactoring and testing. It covers much more than technique: It is about attitude. Martin shows how to approach software development with honor, self-respect, and pride; work well and work clean; communicate and estimate faithfully; face difficult decisions with clarity and honesty; and understand that deep knowledge comes with a responsibility to act. Readers of this collection will come away understanding

- How to tell the difference between good and bad code
- How to write good code and how to transform bad code into good code
- How to create good names, good functions, good objects, and good classes
- How to format code for maximum readability
- How to implement complete error handling without obscuring code logic
- How to unit test and practice test-driven development
- What it means to behave as a true software craftsman
- How to deal with conflict, tight schedules, and unreasonable managers
- How to get into the flow of coding and get past writer's block
- How to handle unrelenting pressure and avoid burnout
- How to combine enduring attitudes with new development paradigms
- How to manage your time and avoid blind alleys, marshes, bogs, and swamps
- How to foster environments where programmers and teams can thrive
- When to say "No"--and how to say it
- When to say "Yes"--and what yes really means

The Practice of Programming

Widely considered one of the best practical guides to programming, Steve McConnell's original *CODE COMPLETE* has been helping developers write better software for more than a decade. Now this classic book has been fully updated and revised with leading-edge practices—and hundreds of new code samples—illustrating the art and science of software construction. Capturing the body of knowledge available from research, academia, and everyday commercial practice, McConnell synthesizes the most effective techniques and must-know principles into clear, pragmatic guidance. No matter what your experience level, development environment, or project size, this book will inform and stimulate your thinking—and help you build the highest quality code. Discover the timeless techniques and strategies that help you:

- Design for minimum complexity and maximum creativity
- Reap the benefits of collaborative development
- Apply defensive programming techniques to reduce and flush out errors
- Exploit opportunities to refactor—or evolve—code, and do it safely
- Use construction practices that are right-weight for your project
- Debug problems quickly and effectively
- Resolve critical construction issues early and correctly
- Build quality into the beginning, middle, and end of your project

Ruby Best Practices

These are the proven, effective agile practices that will make you a better developer. You'll learn pragmatic ways of approaching the development process and your personal coding techniques. You'll learn about your own attitudes, issues with working on a team, and how to best manage your learning, all in an iterative, incremental, agile style. You'll see how to apply each practice, and what benefits

you can expect. Bottom line: This book will make you a better developer.

Software Estimation

Looks at the principles and clean code, includes case studies showcasing the practices of writing clean code, and contains a list of heuristics and "smells" accumulated from the process of writing clean code.

Writing Secure Code

Get more out of your legacy systems: more performance, functionality, reliability, and manageability Is your code easy to change? Can you get nearly instantaneous feedback when you do change it? Do you understand it? If the answer to any of these questions is no, you have legacy code, and it is draining time and money away from your development efforts. In this book, Michael Feathers offers start-to-finish strategies for working more effectively with large, untested legacy code bases. This book draws on material Michael created for his renowned Object Mentor seminars: techniques Michael has used in mentoring to help hundreds of developers, technical managers, and testers bring their legacy systems under control. The topics covered include Understanding the mechanics of software change: adding features, fixing bugs, improving design, optimizing performance Getting legacy code into a test harness Writing tests that protect you against introducing new problems Techniques that can be used with any language or platform—with examples in Java, C++, C, and C# Accurately identifying where code changes need to be made Coping with legacy systems that aren't object-oriented Handling applications that don't seem to have any structure This book also includes a catalog of twenty-four dependency-breaking techniques that help you work with program elements in isolation and make safer changes.

The Robert C. Martin Clean Code Collection (Collection)

Covers Expression, Structure, Common Blunders, Documentation, & Structured Programming Techniques

Rapid Development

What do flashlights, the British invasion, black cats, and seesaws have to do with computers? In *CODE*, they show us the ingenious ways we manipulate language and invent new means of communicating with each other. And through *CODE*, we see how this ingenuity and our very human compulsion to communicate have driven the technological innovations of the past two centuries. Using everyday objects and familiar language systems such as Braille and Morse code, author Charles Petzold weaves an illuminating narrative for anyone who's ever wondered about the secret inner life of computers and other smart machines. It's a cleverly illustrated and eminently comprehensible story—and along the way, you'll discover you've gained a real context for understanding today's world of PCs, digital media, and the Internet. No matter what your level of technical savvy, *CODE* will charm you—and perhaps even awaken the technophile within.

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