

# Clean Code A Handbook Of Agile Software Craftsmanship Robert C Martin Series

This title focuses on the most critical aspects of software development: building robust, bug free systems, meeting deadlines, and coming in under budget. It includes artifacts, anecdotes, and actual code from an enterprise-class XP project.

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.

Explore the functional programming paradigm and the different techniques for developing better algorithms, writing more concise code, and performing seamless testing Key FeaturesExplore this second edition updated to cover features like async functions and transducers, as well as functional reactive programmingEnhance your functional programming (FP) skills to build web and server apps using JavaScriptUse FP to enhance the modularity, reusability, and performance of appsBook Description Functional programming is a paradigm for developing software with better performance. It helps you write concise and testable code. To help you take your programming skills to the next level, this comprehensive book will assist you in harnessing the capabilities of functional programming with JavaScript and writing highly maintainable and testable web and server apps using functional JavaScript. This second edition is updated and improved to cover features such as transducers, lenses, prisms and various other concepts to help you write efficient programs. By focusing on functional programming, you'll not only start to write but also to test pure functions, and reduce side effects. The book also specifically allows you to discover techniques for simplifying code and applying recursion for loopless coding.

Gradually, you'll understand how to achieve immutability, implement design patterns, and work with data types for your application, before going on to learn functional reactive programming to handle complex events in your app. Finally, the book will take you through the design patterns that are relevant to functional programming. By the end of this book, you'll have developed your JavaScript skills and have gained knowledge of the essential functional programming techniques to program effectively. What you will learnSimplify JavaScript coding using function composition, pipelining, chaining, and transducingUse declarative coding as opposed to imperative coding to write clean JavaScript codeCreate more reliable code with closures and immutable dataApply practical solutions to complex programming problems using recursionImprove your functional code using data types, type checking, and immutabilityUnderstand advanced functional programming concepts such as lenses and prisms for data accessWho this book is for This book is for JavaScript

developers who want to enhance their programming skills and build efficient web applications. Frontend and backend developers who use various JavaScript frameworks and libraries like React, Angular, or Node.js will also find the book helpful. Working knowledge of ES2019 is required to grasp the concepts covered in the book easily.

Let Over Lambda is one of the most hardcore computer programming books out there. Starting with the fundamentals, it describes the most advanced features of the most advanced language: Common Lisp. Only the top percentile of programmers use lisp and if you can understand this book you are in the top percentile of lisp programmers. If you are looking for a dry coding manual that re-hashes common-sense techniques in whatever language du jour, this book is not for you. This book is about pushing the boundaries of what we know about programming. While this book teaches useful skills that can help solve your programming problems today and now, it has also been designed to be entertaining and inspiring. If you have ever wondered what lisp or even programming itself is really about, this is the book you have been looking for.

Clean Code

40 Algorithms Every Programmer Should Know

The Open Source Perspective

Clean Agile

Ask a Manager

How Google Tests Software

***Delve deep into the various technical practices, principles, and values of Agile. Key Features Discover the essence of Agile software development and the key principles of software design Explore the fundamental practices of Agile working, including test-driven development (TDD), refactoring, pair programming, and continuous integration Learn and apply the four elements of simple design Book Description The number of popular technical practices has grown exponentially in the last few years. Learning the common fundamental software development practices can help you become a better programmer. This book uses the term Agile as a wide umbrella and covers Agile principles and practices, as well as most methodologies associated with it. You'll begin by discovering how driver-navigator, chess clock, and other techniques used in the pair programming approach introduce discipline while writing code. You'll then learn to safely change the design of your code using refactoring. While learning these techniques, you'll also explore various best practices to write efficient tests. The concluding chapters of the book delve deep into the SOLID principles - the five design principles that you can use to make your software more understandable, flexible and maintainable. By the end of the book, you will have discovered new ideas for improving your software design skills, the relationship within your team, and the way your business works. What you will learn Learn the red, green, refactor cycle of classic TDD and practice the best habits such as the rule of 3, triangulation, object calisthenics, and more Refactor using parallel change and improve legacy code***

*with characterization tests, approval tests, and Golden Master Use code smells as feedback to improve your design Learn the double cycle of ATDD and the outside-in mindset using mocks and stubs correctly in your tests Understand how Coupling, Cohesion, Connascence, SOLID principles, and code smells are all related Improve the understanding of your business domain using BDD and other principles for "doing the right thing, not only the thing right" Who this book is for This book is designed for software developers looking to improve their technical practices. Software coaches may also find it helpful as a teaching reference manual. This is not a beginner's book on how to program. You must be comfortable with at least one programming language and must be able to write unit tests using any unit testing framework.*

*Getting the most out of Python to improve your codebase Key Features Save maintenance costs by learning to fix your legacy codebase Learn the principles and techniques of refactoring Apply microservices to your legacy systems by implementing practical techniques Book Description Python is currently used in many different areas such as software construction, systems administration, and data processing. In all of these areas, experienced professionals can find examples of inefficiency, problems, and other perils, as a result of bad code. After reading this book, readers will understand these problems, and more importantly, how to correct them. The book begins by describing the basic elements of writing clean code and how it plays an important role in Python programming. You will learn about writing efficient and readable code using the Python standard library and best practices for software design. You will learn to implement the SOLID principles in Python and use decorators to improve your code. The book delves more deeply into object oriented programming in Python and shows you how to use objects with descriptors and generators. It will also show you the design principles of software testing and how to resolve software problems by implementing design patterns in your code. In the final chapter we break down a monolithic application to a microservice one, starting from the code as the basis for a solid platform. By the end of the book, you will be proficient in applying industry approved coding practices to design clean, sustainable and readable Python code. What you will learn Set up tools to effectively work in a development environment Explore how the magic methods of Python can help us write better code Examine the traits of Python to create advanced object-oriented design Understand removal of duplicated code using decorators and descriptors Effectively refactor code with the help of unit tests Learn to implement the SOLID principles in Python Who this book is for This book will appeal to team leads, software architects and senior software engineers who would like to work on their legacy systems to save cost and improve efficiency. A strong understanding of Programming is assumed.*

*Even bad code can function. But if code isn't clean, it can bring a development organization to its knees. Every year, countless hours and significant resources are lost because of poorly written code. But it doesn't have to be that way. Noted software expert Robert C. Martin presents a revolutionary paradigm with Clean Code: A Handbook of Agile Software Craftsmanship . 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. What kind of work will you be doing? You'll be reading code—lots of code. And you will be challenged to think about what's right about that code, and what's wrong with it. More importantly, you will be challenged to reassess your professional values and your commitment to your craft. Clean Code is divided into three parts. The first describes the principles, patterns, and practices of writing clean code. The second part consists of several case studies of increasing complexity. Each case study is an exercise in*

*cleaning up code—of transforming a code base that has some problems into one that is sound and efficient. The third part is the payoff: a single chapter containing a list of heuristics and “smells” gathered while creating the case studies. The result is a knowledge base that describes the way we think when we write, read, and clean code. Readers will come away from this book 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 This book is a must for any developer, software engineer, project manager, team lead, or systems analyst with an interest in producing better code.*

*"After many decades - and even more methodologies - software projects are still failing. Why? Managers see software development as a production line. Companies don't know how to manage software projects and hire good developers. Many developers still behave like factory workers, providing terrible service to their employers and clients. Agile was a big step forward, but not enough. What's missing? The right mindset - for both developers and their employers. As developers worldwide are recognizing, the right mindset is craftsmanship ... Mancuso explains what craftsmanship means to the developer and his or her organization, and shows how to live it every day in your real-world development environment. Mancuso shows how software craftsmanship fits with and helps you improve upon best-practice technical disciplines such as agile and lean, taking all your development projects to the next level. You'll learn how to change the disastrous perception that software developers are the same as factory workers, and that software projects can be run like factories. By placing greater professionalism, technical excellence, and customer satisfaction at the heart of what you do, you won't just deliver more value to everyone involved: you'll be happier and more fulfilled doing it"--Publisher's description.*

**AGILE PRIN PATTS PRACTS C#\_1**

**Professionalism, Pragmatism, Pride**

**Agile Technical Practices Distilled**

**You Don't Know JS: Scope & Closures**

**Working Effectively with Legacy Code**

**Federal, State and Local**

**Hone your problem-solving skills by learning different algorithms and their implementation in Python**

**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.**

**No matter how much experience you have with JavaScript, odds are you don't fully understand the language. This concise yet in-depth guide takes you inside scope and closures, two core concepts you need to know to become a more efficient and effective JavaScript programmer. You'll learn how and why they work, and how an understanding of closures can be a powerful part of your development skillset. Like other books in the "You Don't Know JS" series, Scope and Closures dives into trickier parts of the language that many JavaScript programmers simply avoid. Armed with this knowledge, you can achieve true JavaScript mastery. Learn about scope, a set of rules to help JavaScript engines locate variables in your code Go deeper into nested scope, a series of containers for variables and functions Explore function- and block-based scope, "hoisting", and the patterns and benefits of scope-based hiding Discover how to use closures for synchronous and asynchronous tasks, including the creation of JavaScript libraries**

**Learn how to use Solidity and the Ethereum project - second only to Bitcoin in market capitalization. Blockchain protocols are taking the world by storm, and the Ethereum project, with its Turing-complete scripting language Solidity, has rapidly become a front-runner. This book presents the blockchain phenomenon in context; then situates Ethereum in a world pioneered by Bitcoin. See why professionals and non-professionals alike are honing their skills in smart contract patterns and distributed application development. You'll review the fundamentals of programming and networking, alongside its introduction to the new discipline of crypto-economics. You'll then deploy smart contracts of your own, and learn how they can serve as a back-end for JavaScript and HTML applications on the Web. Many Solidity tutorials out there today have the same flaw: they are written for "advanced" JavaScript developers who want to transfer their skills to a blockchain environment. Introducing Ethereum and Solidity is accessible to**

**technology professionals and enthusiasts of all levels. You'll find exciting sample code that can move forward real world assets in both the academic and the corporate arenas. Find out now why this book is a powerful gateway for creative technologists of all types, from concept to deployment. What You'll Learn See how Ethereum (and other cryptocurrencies) work Compare distributed apps (dapps) to web apps Write Ethereum smart contracts in Solidity Connect Ethereum smart contracts to your HTML/CSS/JavaScript web applications Deploy your own dapp, coin, and blockchain Work with basic and intermediate smart contracts Who This Book Is For Anyone who is curious about Ethereum or has some familiarity with computer science Product managers, CTOs, and experienced JavaScript programmers Experts will find the advanced sample projects in this book rewarding because of the power of Solidity What's the best approach for developing an application with JavaScript? This book helps you answer that question with numerous JavaScript coding patterns and best practices. If you're an experienced developer looking to solve problems related to objects, functions, inheritance, and other language-specific categories, the abstractions and code templates in this guide are ideal—whether you're using JavaScript to write a client-side, server-side, or desktop application. Written by JavaScript expert Stoyan Stefanov—Senior Yahoo! Technical and architect of YSlow 2.0, the web page performance optimization tool—JavaScript Patterns includes practical advice for implementing each pattern discussed, along with several hands-on examples. You'll also learn about anti-patterns: common programming approaches that cause more problems than they solve. Explore useful habits for writing high-quality JavaScript code, such as avoiding globals, using single var declarations, and more Learn why literal notation patterns are simpler alternatives to constructor functions Discover different ways to define a function in JavaScript Create objects that go beyond the basic patterns of using object literals and constructor functions Learn the options available for code reuse and inheritance in JavaScript Study sample JavaScript approaches to common design patterns such as Singleton, Factory, Decorator, and more Examine patterns that apply specifically to the client-side browser environment**

**The The Go Workshop**

**Introducing Ethereum and Solidity**

**Government Contracts**

**Clean Code in JavaScript**

**Code Complete**

## ***From Journeyman to Master***

### ***Develop reliable, maintainable, and robust JavaScript***

The Markdown markup language is one of the most popular plain-text formatting languages available. Now you can learn the Markdown syntax with the book that's been called "the best Markdown reference." Designed for both novices and experts, The Markdown Guide is a comprehensive reference manual that has everything you need to get started and master the Markdown syntax.

Threads are a fundamental part of the Java platform. As multicore processors become the norm, using concurrency effectively becomes essential for building high-performance applications. Java SE 5 and 6 are a huge step forward for the development of concurrent applications, with improvements to the Java Virtual Machine to support high-performance, highly scalable concurrent classes and a rich set of new concurrency building blocks. In *Java Concurrency in Practice*, the creators of these new facilities explain not only how they work and how to use them, but also the motivation and design patterns behind them. However, developing, testing, and debugging multithreaded programs can still be very difficult; it is all too easy to create concurrent programs that appear to work, but fail when it matters most: in production, under heavy load. *Java Concurrency in Practice* arms readers with both the theoretical underpinnings and concrete techniques for building reliable, scalable, maintainable concurrent applications. Rather than simply offering an inventory of concurrency APIs and mechanisms, it provides design rules, patterns, and mental models that make it easier to build concurrent programs that are both correct and performant. This book covers:

- Basic concepts of concurrency and thread safety
- Techniques for building and composing thread-safe classes
- Using the concurrency building blocks in `java.util.concurrent`
- Performance optimization dos and don'ts
- Testing concurrent programs
- Advanced topics such as atomic variables, nonblocking algorithms, and the Java Memory Model

Get the most out of JavaScript for building web applications through a series of patterns, techniques, and case studies for clean coding

**Key Features**

- Write maintainable JS code using internal abstraction, well-written tests, and well-documented code
- Understand the agents of clean coding like SOLID principles, OOP, and functional programming
- Explore solutions to tackle common JavaScript challenges in building UIs, managing APIs, and writing states

**Book Description**

Building robust apps starts with creating clean code. In this book, you 'll explore techniques for doing this by learning everything from the basics of JavaScript through to the practices of clean code. You 'll write functional, intuitive, and maintainable code while also understanding how your code affects the end user and the wider community. The book starts with popular clean-coding principles such as SOLID, and the Law of Demeter (LoD), along with highlighting the enemies of writing clean code such as cargo culting and over-management. You 'll then delve into JavaScript, understanding the more complex aspects of the language. Next, you 'll create meaningful abstractions using design patterns, such as the Class Pattern and the Revealing Module Pattern. You 'll explore real-world challenges such as DOM reconciliation, state management, dependency management, and security, both within browser and server environments. Later, you 'll cover tooling and testing

methodologies and the importance of documenting code. Finally, the book will focus on advocacy and good communication for improving code cleanliness within teams or workplaces, along with covering a case study for clean coding. By the end of this book, you ' ll be well-versed with JavaScript and have learned how to create clean abstractions, test them, and communicate about them via documentation. What you will learn

Understand the true purpose of code and the problems it solves for your end-users and colleagues  
Discover the tenets and enemies of clean code considering the effects of cultural and syntactic conventions  
Use modern JavaScript syntax and design patterns to craft intuitive abstractions  
Maintain code quality within your team via wise adoption of tooling and advocating best practices  
Learn the modern ecosystem of JavaScript and its challenges like DOM reconciliation and state management  
Express the behavior of your code both within tests and via various forms of documentation

Who this book is for This book is for anyone who writes JavaScript, professionally or otherwise. As this book does not relate specifically to any particular framework or environment, no prior experience of any JavaScript web framework is required. Some knowledge of programming is assumed to understand the concepts covered in the book more effectively.

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.

The Markdown Guide

WORK EFFECT LEG CODE \_p1

Test-Driven iOS Development

Refactor your legacy code base

Implementation Patterns

Clean Code in Python

Agile Principles, Patterns, and Practices in C#

Object-Oriented Analysis and Design with Applications has long been the essential reference to object-oriented technology-a technology that has evolved and become the de facto paradigm in mainstream software development. With this highly anticipated third edition, readers can learn to apply object-oriented methods using the Unified Modeling Language (UML) 2.0. The authors including UML founder Grady Booch draw upon their rich and varied experience to offer improved methods for object development that tackle the complex problems faced by system and software developers. Using numerous examples, they illustrate essential concepts, explain the method and show successful applications in a variety of fields, including systems architecture, data acquisition, cryptanalysis, control systems and Web development. Readers will also find pragmatic advice on a host of important issues, including classification, implementation strategies and cost-effective project management.

Clean CodeA Handbook of Agile Software CraftsmanshipPearson Education

As iOS apps become increasingly complex and business-critical, iOS developers must ensure consistently superior code quality. This means adopting best practices for creating and testing iOS apps. Test-Driven Development (TDD) is one of the most powerful of these best practices. Test-Driven iOS Development is the first book 100% focused on helping you successfully implement TDD

and unit testing in an iOS environment. Long-time iOS/Mac developer Graham Lee helps you rapidly integrate TDD into your existing processes using Apple's Xcode 4 and the OCUit unit testing framework. He guides you through constructing an entire Objective-C iOS app in a test-driven manner, from initial specification to functional product. Lee also introduces powerful patterns for applying TDD in iOS development, and previews powerful automated testing capabilities that will soon arrive on the iOS platform. Coverage includes Understanding the purpose, benefits, and costs of unit testing in iOS environments Mastering the principles of TDD, and applying them in areas from app design to refactoring Writing usable, readable, and repeatable iOS unit tests Using OCUit to set up your Xcode project for TDD Using domain analysis to identify the classes and interactions your app needs, and designing it accordingly Considering third-party tools for iOS unit testing Building networking code in a test-driven manner Automating testing of view controller code that interacts with users Designing to interfaces, not implementations Testing concurrent code that typically runs in the background Applying TDD to existing apps Preparing for Behavior Driven Development (BDD) The only iOS-specific guide to TDD and unit testing, Test-Driven iOS Development covers both essential concepts and practical implementation.

Gain insight into how hexagonal architecture can help to keep the cost of development low over the complete lifetime of an application Key FeaturesExplore ways to make your software flexible, extensible, and adaptableLearn new concepts that you can easily blend with your own software development styleDevelop the mindset of building maintainable solutions instead of taking shortcutsBook Description We would all like to build software architecture that yields adaptable and flexible software with low development costs. But, unreasonable deadlines and shortcuts make it very hard to create such an architecture. Get Your Hands Dirty on Clean Architecture starts with a discussion about the conventional layered architecture style and its disadvantages. It also talks about the advantages of the domain-centric architecture styles of Robert C. Martin's Clean Architecture and Alistair Cockburn's Hexagonal Architecture. Then, the book dives into hands-on chapters that show you how to manifest a hexagonal architecture in actual code. You'll learn in detail about different mapping strategies between the layers of a hexagonal architecture and see how to assemble the architecture elements into an application. The later chapters demonstrate how to enforce architecture boundaries. You'll also learn what shortcuts produce what types of technical debt and how, sometimes, it is a good idea to willingly take on those debts. After reading this book, you'll have all the knowledge you need to create applications using the hexagonal architecture style of web development. What you will learnIdentify potential shortcomings of using a layered architectureApply methods to enforce architecture boundariesFind out how potential shortcuts can affect the software architectureProduce arguments for when to use which style of architectureStructure your code according to the architectureApply various types of tests that will cover each element of the architectureWho this book is for This book is for you if you care about the architecture of the software you are building. To get the most out of this book, you must have some experience with web development. The code examples in this book are in Java. If you are not a Java programmer but can read object-oriented code in other languages, you will be fine. In the few places where Java or framework specifics are needed, they are thoroughly explained.

your journey to mastery, 20th Anniversary Edition

The Software Craftsman

The Complete Adult Psychotherapy Treatment Planner

Let Over Lambda

Foundations of Cryptocurrency and Blockchain Programming for Beginners

Java Concurrency in Practice

The Robert C. Martin Clean Code Collection (Collection)

CD-ROM contains cross-referenced code.

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

In `Clean Craftsmanship`, the legendary Robert C. Martin ("Uncle Bob") has written every programmer's definitive guide to working well. Martin brings together the disciplines, standards, and ethics you need to deliver robust, effective code quickly and productively, and be proud of all the software you write -- every single day. Martin, the best-selling author of `The Clean Coder`, begins with a pragmatic, technical, and prescriptive guide to five foundational disciplines of software craftsmanship: test-driven development, refactoring, simple design, collaborative programming (pairing), and acceptance tests. Next, he moves up to standards -- outlining the baseline expectations the world has of software developers, illuminating how those often differ from their own perspectives, and helping you repair the

mismatch. Finally, he turns to the ethics of the programming profession, describing ten fundamental promises all software developers should make to their colleagues, their users, and above all, themselves. With Martin's guidance and advice, you can consistently write code that builds trust instead of undermining it -- trust among your users and throughout a society that depends on software for its very survival.

Tackle inefficiencies and errors the Pythonic way  
Key Features  
Enhance your coding skills using the new features introduced in Python 3.9  
Implement the refactoring techniques and SOLID principles in Python  
Apply microservices to your legacy systems by implementing practical techniques  
Book Description  
Experienced professionals in every field face several instances of disorganization, poor readability, and testability due to unstructured code. With updated code and revised content aligned to the new features of Python 3.9, this second edition of Clean Code in Python will provide you with all the tools you need to overcome these obstacles and manage your projects successfully. The book begins by describing the basic elements of writing clean code and how it plays a key role in Python programming. You will learn about writing efficient and readable code using the Python standard library and best practices for software design. The book discusses object-oriented programming in Python and shows you how to use objects with descriptors and generators. It will also show you the design principles of software testing and how to resolve problems by implementing software design patterns in your code. In the concluding chapter, we break down a monolithic application into a microservices-based one starting from the code as the basis for a solid platform. By the end of this clean code book, you will be proficient in applying industry-approved coding practices to design clean, sustainable, and readable real-world Python code. What you will learn  
Set up a productive development environment by leveraging automatic tools  
Leverage the magic methods in Python to write better code, abstracting complexity away and encapsulating details  
Create advanced object-oriented designs using unique features of Python, such as descriptors  
Eliminate duplicated code by creating powerful abstractions using software engineering principles of object-oriented design  
Create Python-specific solutions using decorators and descriptors  
Refactor code effectively with the help of unit tests  
Build the foundations for solid architecture with a clean code base as its cornerstone  
Who this book is for  
This book is designed to benefit new as well as experienced programmers. It will appeal to team leads, software architects and senior software engineers who would like to write Pythonic code to save on costs and improve efficiency. The book assumes that

you have a strong understanding of programming

Clean Craftsmanship

Learn to write clean, efficient code and build high-performance applications with Go

The Pragmatic Programmer

Develop maintainable and efficient code

A hands-on guide to creating clean web applications with code examples in Java

Object Oriented Analysis and Design with Applications, 3e

How to Navigate Clueless Colleagues, Lunch-Stealing Bosses, and the Rest of Your Life at Work

The Robert C. Martin Clean Code Collection consists of two bestselling eBooks: Clean Code: A Handbook of Agile Software Craftsmanship 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

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.

Learn algorithms for solving classic computer science problems with this concise guide covering everything from fundamental algorithms, such as sorting and

searching, to modern algorithms used in machine learning and cryptography Key FeaturesLearn the techniques you need to know to design algorithms for solving

complex problemsBecome familiar with neural networks and deep learning techniquesExplore different types of algorithms and choose the right data structures

for their optimal implementationBook Description Algorithms have always played an important role in both the science and practice of computing. Beyond

traditional computing, the ability to use algorithms to solve real-world problems is an important skill that any developer or programmer must have. This book will

help you not only to develop the skills to select and use an algorithm to solve real-world problems but also to understand how it works. You ’ ll start with an

introduction to algorithms and discover various algorithm design techniques, before exploring how to implement different types of algorithms, such as searching

and sorting, with the help of practical examples. As you advance to a more complex set of algorithms, you'll learn about linear programming, page ranking, and

graphs, and even work with machine learning algorithms, understanding the math and logic behind them. Further on, case studies such as weather prediction, tweet clustering, and movie recommendation engines will show you how to apply these algorithms optimally. Finally, you'll become well versed in techniques that enable parallel processing, giving you the ability to use these algorithms for compute-intensive tasks. By the end of this book, you'll have become adept at solving real-world computational problems by using a wide range of algorithms. What you will learn

- Explore existing data structures and algorithms found in Python libraries
- Implement graph algorithms for fraud detection using network analysis
- Work with machine learning algorithms to cluster similar tweets and process Twitter data in real time
- Predict the weather using supervised learning algorithms
- Use neural networks for object detection
- Create a recommendation engine that suggests relevant movies to subscribers
- Implement foolproof security using symmetric and asymmetric encryption on Google Cloud Platform (GCP)

Who this book is for This book is for programmers or developers who want to understand the use of algorithms for problem-solving and writing efficient code. Whether you are a beginner looking to learn the most commonly used algorithms in a clear and concise way or an experienced programmer looking to explore cutting-edge algorithms in data science, machine learning, and cryptography, you'll find this book useful. Although Python programming experience is a must, knowledge of data science will be helpful but not necessary.

With the award-winning book *Agile Software Development: Principles, Patterns, and Practices*, Robert C. Martin helped bring Agile principles to tens of thousands of Java and C++ programmers. Now .NET programmers have a definitive guide to agile methods with this completely updated volume from Robert C. Martin and Micah Martin, *Agile Principles, Patterns, and Practices in C#*. This book presents a series of case studies illustrating the fundamentals of Agile development and Agile design, and moves quickly from UML models to real C# code. The introductory chapters lay out the basics of the agile movement, while the later chapters show proven techniques in action. The book includes many source code examples that are also available for download from the authors' Web site. Readers will come away from this book understanding Agile principles, and the fourteen practices of Extreme Programming Spiking, splitting, velocity, and planning iterations and releases Test-driven development, test-first design, and acceptance testing Refactoring with unit testing Pair programming Agile design and design smells The five types of UML diagrams and how to use them effectively Object-oriented package design and design patterns How to put all of it together for a real-world project Whether you are a C# programmer or a Visual Basic or Java programmer learning C#, a software development manager, or a business analyst, *Agile Principles, Patterns, and Practices in C#* is the first book you should read to understand agile software and how it applies to programming in the .NET Framework.

Build Better Applications with Coding and Design Patterns

Clean Code in C#

Disciplines, Standards, and Ethics

Refactor your legacy C# code base and improve application performance by applying best practices

A Comprehensive Beginner's Guide to Learn the Realms of Clean Code From A-Z

A Craftsman's Guide to Software Structure and Design

A Code of Conduct for Professional Programmers

***From the creator of the popular website Ask a Manager and New York's work-advice columnist comes a witty, practical guide to 200 difficult professional conversations—featuring all-new advice! There's a reason Alison Green has been called "the Dear Abby of the work world." Ten years as a workplace-advice columnist have taught her that people avoid awkward conversations in the office because they simply don't know what to say. Thankfully, Green does—and in this incredibly helpful book, she tackles the tough discussions you may need***

*to have during your career. You'll learn what to say when • coworkers push their work on you—then take credit for it • you accidentally trash-talk someone in an email then hit “reply all” • you're being micromanaged—or not being managed at all • you catch a colleague in a lie • your boss seems unhappy with your work • your cubemate's loud speakerphone is making you homicidal • you got drunk at the holiday party* Praise for Ask a Manager “A must-read for anyone who works . . . [Alison Green's] advice boils down to the idea that you should be professional (even when others are not) and that communicating in a straightforward manner with candor and kindness will get you far, no matter where you work.”—Booklist (starred review) “The author's friendly, warm, no-nonsense writing is a pleasure to read, and her advice can be widely applied to relationships in all areas of readers' lives. Ideal for anyone new to the job market or new to management, or anyone hoping to improve their work experience.”—Library Journal (starred review) “I am a huge fan of Alison Green's Ask a Manager column. This book is even better. It teaches us how to deal with many of the most vexing big and little problems in our workplaces—and to do so with grace, confidence, and a sense of humor.”—Robert Sutton, Stanford professor and author of The No Asshole Rule and The Asshole Survival Guide “Ask a Manager is the ultimate playbook for navigating the traditional workforce in a diplomatic but firm way.”—Erin Lowry, author of Broke Millennial: Stop Scraping By and Get Your Financial Life Together

2012 Jolt Award finalist! Pioneering the Future of Software Test Do you need to get it right, too? Then, learn from Google. Legendary testing expert James Whittaker, until recently a Google testing leader, and two top Google experts reveal exactly how Google tests software, offering brand-new best practices you can use even if you're not quite Google's size...yet! Breakthrough Techniques You Can Actually Use Discover 100% practical, amazingly scalable techniques for analyzing risk and planning tests...thinking like real users...implementing exploratory, black box, white box, and acceptance testing...getting usable feedback...tracking issues...choosing and creating tools...testing “Docs & Mocks,” interfaces, classes, modules, libraries, binaries, services, and infrastructure...reviewing code and refactoring...using test hooks, presubmit scripts, queues, continuous builds, and more. With these techniques, you can transform testing from a bottleneck into an accelerator—and make your whole organization more productive!

“One of the most significant books in my life.”—Obie Fernandez, Author, The Rails Way “Twenty years ago, the first edition of The Pragmatic Programmer completely changed the trajectory of my career. This new edition could do the same for yours.”—Mike Cohn, Author of Succeeding with Agile, Agile Estimating and Planning, and User Stories Applied “. . . filled with practical advice, both technical and professional, that will serve you and your projects well for years to come.”—Andrea Goulet, CEO, Corgibytes, Founder, LegacyCode.Rocks “. . . lightning does strike twice, and this book is proof.”—VM (Vicky) Brasseur, Director of Open Source Strategy, Juniper Networks The Pragmatic Programmer is one of those rare tech books you'll read, re-read, and read again over the years. Whether you're new to the field or an experienced practitioner, you'll come away with fresh insights each and every time. Dave Thomas and Andy Hunt wrote the first edition of this influential book in 1999 to help their clients create better software and rediscover the joy of coding. These lessons have helped a generation of programmers examine the very essence of software development, independent of any particular language, framework, or methodology, and the Pragmatic philosophy has spawned hundreds of books, screencasts, and audio books, as well as thousands of careers and success stories. Now, twenty years later, this new edition re-examines what it means to be a modern

*programmer. Topics range 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 Learn continuously Avoid the trap of duplicating knowledge Write flexible, dynamic, and adaptable code Harness the power of basic tools Avoid programming by coincidence Learn real requirements Solve the underlying problems of concurrent code Guard against security vulnerabilities Build teams of Pragmatic Programmers Take responsibility for your work and career Test ruthlessly and effectively, including property-based testing Implement the Pragmatic Starter Kit Delight your users Written as a series of self-contained sections and filled with classic and fresh anecdotes, thoughtful examples, and interesting analogies, The Pragmatic Programmer illustrates the best approaches 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. Register your book for convenient access to downloads, updates, and/or corrections as they become available. See inside book for details.*

*Software Expert Kent Beck Presents a Catalog of Patterns Infinitely Useful for Everyday Programming Great code doesn't just function: it clearly and consistently communicates your intentions, allowing other programmers to understand your code, rely on it, and modify it with confidence. But great code doesn't just happen. It is the outcome of hundreds of small but critical decisions programmers make every single day. Now, legendary software innovator Kent Beck—known worldwide for creating Extreme Programming and pioneering software patterns and test-driven development—focuses on these critical decisions, unearthing powerful “implementation patterns” for writing programs that are simpler, clearer, better organized, and more cost effective. Beck collects 77 patterns for handling everyday programming tasks and writing more readable code. This new collection of patterns addresses many aspects of development, including class, state, behavior, method, collections, frameworks, and more. He uses diagrams, stories, examples, and essays to engage the reader as he illuminates the patterns. You'll find proven solutions for handling everything from naming variables to checking exceptions.*

*The Clean Coder*

*Extreme Programming in Practice*

*Code Reading*

*Get Your Hands Dirty on Clean Architecture*

*A Handbook of Agile Software Craftsmanship*

*50 Years of Lisp*

*Write clean, robust, and maintainable web and server code using functional JavaScript, 2nd Edition*

The operation of government purchasing contracts and the way the law applies to them, is the subject of thorough and penetrating analysis in this new edition of a standard work. It provides a complete analysis of important new developments and new material on legal risk in contracting, statutory contracts and trade practices law.

Develop your programming skills by exploring essential topics such as code reviews, implementing TDD and BDD, and designing

APIs to overcome code inefficiency, redundancy, and other problems arising from bad code

**Key Features**

- Write code that cleanly integrates with other systems while maintaining well-defined software boundaries
- Understand how coding principles and standards enhance software quality
- Learn how to avoid common errors while implementing concurrency or threading

**Book Description**

Traditionally associated with developing Windows desktop applications and games, C# is now used in a wide variety of domains, such as web and cloud apps, and has become increasingly popular for mobile development. Despite its extensive coding features, professionals experience problems related to efficiency, scalability, and maintainability because of bad code. Clean Code in C# will help you identify these problems and solve them using coding best practices. The book starts with a comparison of good and bad code, helping you understand the importance of coding standards, principles, and methodologies. You 'll then get to grips with code reviews and their role in improving your code while ensuring that you adhere to industry-recognized coding standards. This C# book covers unit testing, delves into test-driven development, and addresses cross-cutting concerns. You 'll explore good programming practices for objects, data structures, exception handling, and other aspects of writing C# computer programs. Once you 've studied API design and discovered tools for improving code quality, you 'll look at examples of bad code and understand which coding practices you should avoid. By the end of this clean code book, you 'll have the developed skills you need in order to apply industry-approved coding practices to write clean, readable, extendable, and maintainable C# code. What you will learn

- Write code that allows software to be modified and adapted over time
- Implement the fail-pass-refactor methodology using a sample C# console application
- Address cross-cutting concerns with the help of software design patterns
- Write custom C# exceptions that provide meaningful information
- Identify poor quality C# code that needs to be refactored
- Secure APIs with API keys and protect data using Azure Key Vault
- Improve your code 's performance by using tools for profiling and refactoring

Who this book is for This coding book is for C# developers, team leads, senior software engineers, and software architects who want to improve the efficiency of their legacy systems. A strong understanding of C# programming is required.

**Agile Values and Principles for a New Generation**

“ In the journey to all things Agile, Uncle Bob has been there, done that, and has the both the t-shirt and the scars to show for it. This delightful book is part history, part personal stories, and all wisdom. If you want to understand what Agile is and how it came to be, this is the book for you. ” –Grady Booch

“ Bob 's frustration colors every sentence of Clean Agile, but it 's a justified frustration. What is in the world of Agile development is nothing compared to what could be. This book is Bob 's perspective on what to focus on to get to that ' what could be. ' And he 's been there, so it 's worth listening. ” –Kent Beck

“ It 's good to read Uncle Bob 's take on Agile. Whether just beginning, or a seasoned Agilista, you would do well to read this book. I agree with almost all of it. It 's just some of the parts make me realize my own shortcomings, dammit. It made me double-check our code coverage (85.09%). ” –Jon Kern

Nearly twenty years after the Agile Manifesto was first presented, the legendary Robert C. Martin ( “ Uncle Bob ” ) reintroduces Agile values and principles for a new generation—programmers and nonprogrammers alike. Martin, author of Clean Code and other highly influential software development guides, was there at Agile 's founding. Now, in Clean Agile: Back to Basics, he strips away misunderstandings and distractions that over the years have made it

harder to use Agile than was originally intended. Martin describes what Agile is in no uncertain terms: a small discipline that helps small teams manage small projects . . . with huge implications because every big project is comprised of many small projects. Drawing on his fifty years ' experience with projects of every conceivable type, he shows how Agile can help you bring true professionalism to software development. Get back to the basics—what Agile is, was, and should always be Understand the origins, and proper practice, of SCRUM Master essential business-facing Agile practices, from small releases and acceptance tests to whole-team communication Explore Agile team members ' relationships with each other, and with their product Rediscover indispensable Agile technical practices: TDD, refactoring, simple design, and pair programming Understand the central roles values and craftsmanship play in your Agile team ' s success If you want Agile ' s true benefits, there are no shortcuts: You need to do Agile right. Clean Agile: Back to Basics will show you how, whether you ' re a developer, tester, manager, project manager, or customer. Register your book for convenient access to downloads, updates, and/or corrections as they become available. See inside book for details.

More C++ Gems picks up where the first book left off, presenting tips, tricks, proven strategies, easy-to-follow techniques, and usable source code.

Clean Architecture

A learning journey in technical practices and principles of software design

More C++ Gems

JavaScript Patterns

Back to Basics

Mastering JavaScript Functional Programming

Practical Software Architecture Solutions from the Legendary Robert C. Martin ("Uncle Bob") By applying universal rules of software architecture, you can dramatically improve developer productivity throughout the life of any software system. Now, building upon the success of his best-selling books Clean Code and The Clean Coder, legendary software craftsman Robert C. Martin ("Uncle Bob") reveals those rules and helps you apply them. Martin's Clean Architecture doesn't merely present options. Drawing on over a half-century of experience in software environments of every imaginable type, Martin tells you what choices to make and why they are critical to your success. As you've come to expect from Uncle Bob, this book is packed with direct, no-nonsense solutions for the real challenges you'll face—the ones that will make or break your projects. Learn what software architects need to achieve—and core disciplines and practices for achieving it Master essential software design principles for addressing function, component separation, and data management See how programming paradigms impose discipline by restricting what developers can do Understand what's critically important and what's merely a "detail" Implement optimal, high-level structures for web, database, thick-client, console, and embedded applications Define appropriate boundaries and layers, and organize

components and services See why designs and architectures go wrong, and how to prevent (or fix) these failures Clean Architecture is essential reading for every current or aspiring software architect, systems analyst, system designer, and software manager—and for every programmer who must execute someone else's designs. Register your product for convenient access to downloads, updates, and/or corrections as they become available.

The Go Workshop takes you from being a novice Go programmer to a confident developer who can leverage the key features of the language to build real-world applications. This book helps you cut through excessive theory and delve into the practical features and techniques that are commonly applied to design performant, scalable applications.

We all live in a digital world of information technology. In this technology-driven world, computer software and applications are everywhere around us. Have you ever wondered how different applications and software work together efficiently? This book will be a comprehensive guide to make users understand how coding practices work in a few different computer programs and software. This book provides details about programming concepts, the history of programming, the importance of programming in daily life, how programming concepts are evolving in our daily life, and the best practices of using programming languages. We also discuss the best programming languages available in the world, different components of a program, how programs are improved in their efficiency, learning programming for a bright career choice and the future of programming. The programming is involved everywhere around us, even though many people are not aware of it. People work on digital platforms all the time, and they are using different kinds of programs. They do not have a deep understanding of programming concepts. This book is a comprehensive guide to help you understand how different programming concepts work together, and how different applications are made by using effective programming strategies, this book will be a comprehensive guide to understand all these concepts. This book will depict all the concepts of the programming languages from beginning to end. It will be a comprehensive and complete guide to understand the use of the best available sources to make an application that will work effectively and efficiently on the intended platform. Writing clean code is a skill that all computer programmers will want to master.