

Framework Design Guidelines Conventions Idioms And Patterns For Reusable Net Libraries Conventions Idioms And Patterns For Reuseable Net Libraries Microsoft Net Development

Demonstrates how to create generic frameworks, libraries, classes, and tools that can be used in the .NET environment and provides instructions on how to select the right language to develop parts of a system and how to integrate them at runtime. Get up to speed with using C# 8 and .NET Core 3.0 features to build real-world .NET Core applications Key Features Learn the core concepts of web applications, serverless computing, and microservices Create an ASP.NET Core MVC application using controllers, routing, middleware and authentication Build modern applications using cutting-edge services from Microsoft Azure Book Description .NET Core is a general-purpose, modular, cross-platform, and opensource implementation of .NET. The latest release of .NET Core 3 comes with improved performance and security features, along with support for desktop applications. .NET Core 3 is not only useful for new developers looking to start learning the framework, but also for legacy developers interested in migrating their apps. Updated with the latest features and enhancements, this updated second edition is a step-by-step, project-based guide. The book starts with a brief introduction to the key features of C# 8 and .NET Core 3. You'll learn to work with relational data using Entity Framework Core 3, before understanding how to use ASP.NET Core. As you progress, you ' ll discover how you can use .NET Core to create cross-platform applications. Later, the book will show you how to upgrade your old WinForms apps to .NET Core 3. The concluding chapters will then help you use SignalR effectively to add real-time functionality to your applications, before demonstrating how to implement MongoDB in your apps. Finally, you'll delve into serverless computing and how to build microservices using Docker and Kubernetes. By the end of this book, you'll be proficient in developing applications using .NET Core 3. What you will learn Understand how to incorporate the Entity Framework Core 3 to build ASP.NET Core MVC applications Create a real-time chat application using Azure ' s SignalR service Gain hands-on experience of working with Cosmos DB Develop an Azure Function and interface it with an Azure Logic App Explore user authentication with Identity Server and OAuth2 Understand how to use Azure Cognitive Services to add advanced functionalities with minimal code Get to grips with running a .NET Core application with Kubernetes Who this book is for This book is for developers and programmers of all levels who want to build real-world projects and explore the new features of .NET Core 3. Developers working on legacy desktop software who are looking to migrate to .NET Core 3 will also find this book useful. Basic knowledge of .NET Core and C# is assumed.

The focus of software engineering is moving from writing reliable large-scale software to ensuring that this software meets the needs of the users for whom it was designed. The business of eliciting and then implementing the (often changing) user requirements is requirements engineering. This book is intended for the undergraduate novice who is being introduced to software requirements engineering. It is a hard subject for which there is no formulaic approach and for which it is sometimes difficult to motivate students who are unaware of the problems involved and therefore the need to study the subject. It therefore begins with small, relatively simple, case studies and builds on these to provide the opportunities to scale up this expertise to large industrial projects. The book will be in three parts: the first provides a guide to all the important requirements engineering topics; the second gives more detail on useful techniques (for problem definition and modelling); the third contain the complete case studies, extracts from which are used in parts one and two. Requirements Engineering is a jargon-filled subject, so a comprehensive glossary is provided as well as definitions within the text.

Data visualization is an efficient and effective medium for communicating large amounts of information, but the design process can often seem like an unexplainable creative endeavor. This concise book aims to demystify the design process by showing you how to use a linear decision-making process to encode your information visually. Delve into different kinds of visualization, including infographics and visual art, and explore the influences at work in each one. Then learn how to apply these concepts to your design process. Learn data visualization classifications, including explanatory, exploratory, and hybrid Discover how three fundamental influences—the designer, the reader, and the data—shape what you create Learn how to describe the specific goal of your visualization and identify the supporting data Decide the spatial position of your visual entities with axes Encode the various dimensions of your data with appropriate visual properties, such as shape and color See visualization best practices and suggestions for encoding various specific data types

An Application Design Guide

More Effective C#

Programming WCF Services

Modern PHP

System Engineering Analysis, Design, and Development

Framework Design Guidelines

This newly expanded and updated second edition of the best-selling classic continues to take the "mystery" out of designing algorithms, and analyzing their efficacy and efficiency. Expanding on the first edition, the book now serves as the primary textbook of choice for algorithm design courses while maintaining its status as the premier practical reference guide to algorithms for programmers, researchers, and students. The reader-friendly Algorithm Design Manual provides straightforward access to combinatorial algorithms technology, stressing design over analysis. The first part, Techniques, provides accessible instruction on methods for designing and analyzing computer algorithms. The second part, Resources, is intended for browsing and reference, and comprises the catalog of algorithmic resources, implementations and an extensive bibliography. NEW to the second edition: □ Doubles the tutorial material and exercises over the first edition □ Provides full online support for lecturers, and a completely updated and improved website component with lecture slides, audio and video □ Contains a unique catalog identifying the 75 algorithmic problems that arise most often in practice, leading the reader down the right path to solve them □ Includes several NEW "war stories" relating experiences from real-world applications □ Provides up-to-date links leading to the very best algorithm implementations available in C, C++, and Java

A tutorial and reference to the object-oriented programming language for beginning to experienced programmers, updated for version 1.8, describes the language's structure, syntax, and operation, and explains how to build applications. Original.

(Intermediate)

The expert guide to building Ruby on Rails applications Ruby on Rails strips complexity from the development process, enabling professional developers to focus on what matters most: delivering business value. Now, for the first time, there's a comprehensive, authoritative guide to building production-quality software with Rails. Pioneering Rails developer Obie Fernandez and a team of experts illuminate the entire Rails API, along with the Ruby idioms, design approaches, libraries, and plug-ins that make Rails so valuable. Drawing on their unsurpassed experience, they address the real challenges development teams face, showing how to use Rails's tools and best practices to maximize productivity and build polished applications users will enjoy. Using detailed code examples, Obie systematically covers Rails's key capabilities and subsystems. He presents advanced programming techniques, introduces open source libraries that facilitate easy Rails adoption, and offers important insights into testing and production deployment. Dive deep into the Rails codebase together, discovering why Rails behaves as it does—and how to make it behave the way you want it to. This book will help you Increase your productivity as a web developer Realize the overall joy of programming with Ruby on Rails Learn what's new in Rails 2.0 Drive design and protect long-term maintainability with TestUnit and RSpec Understand and manage complex program flow in Rails controllers Leverage Rails's support for designing REST-compliant APIs Master sophisticated Rails routing concepts and techniques Examine and troubleshoot Rails routing Make the most of ActiveRecord object-relational mapping Utilize Ajax within your Rails applications Incorporate logins and authentication into your application Extend Rails with the best third-party plug-ins and write your own Integrate email services into your applications with ActionMailer Choose the right Rails production configurations Streamline deployment with Capistrano Learn the fundamentals of Delphi to build a variety of solutions for many devices and platforms. Author Marco Breveglieri will provide you with an overview of Delphi, its principles, its environment, and its use of Object Pascal language so that you can harness its versatility. With Delphi, the power of Delphi is at your fingertips. This updated and expanded second edition of Book provides a user-friendly introduction to the subject, Taking a clear structural framework, it guides the reader through the subject's core elements. A flowing writing style combines with the use of illustrations and diagrams throughout the text to ensure the reader understands even the most complex of concepts. This succinct and enlightening overview is a required reading for all those interested in the subject . We hope you find this book useful in shaping your future career & Business.

Common European Framework of Reference for Languages: Learning, Teaching, assessment

Dependency Injection Principles, Practices, and Patterns

Perl Best Practices

Designing Object-oriented Software

Elements of Reusable Object-Oriented Software

A JavaScript and jQuery Developer's Guide

Master Today's Best Practices for Building Reusable .NET Frameworks, Libraries, and Components Framework Design Guidelines has long been the definitive guide to best practices for developing components and component libraries in Microsoft .NET. Now, this third edition has been fully revised to reflect game-changing API design innovations introduced by Microsoft through seven recent updates to C#, eight updates to .NET Framework, and the emergence and evolution of .NET Core. Three of Microsoft's leading architects share the same guidance Microsoft teams are using to evolve .NET, so you can design well-performing components that feel like natural extensions to the platform. Building on the book's proven explanatory style, the authors and expert annotators offer insider guidance on new .NET and C# concepts, including major advances in asynchronous programming, lightweight memory access, and shared component distribution. Throughout, they clarify and refresh existing content, helping you take full advantage of best practices based on C# 7.3, .NET Framework 4.7.x, and .NET Core. Discover which practices should always, generally, rarely, or never be used—including practices that are no longer recommended Learn the general philosophy and fundamental principles of modern framework design Explore common framework design patterns with up-to-date C# examples Apply best practices for naming, types, extensibility, and exceptions Master new async programming techniques utilizing Task and ValueTask Make the most of .NET Core Memory and Span lightweight memory access Distribute shared components via NuGet, and manage its considerations and tradeoffs This guide is an indispensable resource for everyone who builds reusable .NET-based frameworks, libraries, or components at any scale: large system frameworks, medium-size reusable layers of large distributed systems, extensions to system frameworks, or even small shared components. Register your book for convenient access to downloads, updates, and/or corrections as they become available. See inside book for details.

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

With Learning JavaScript Design Patterns, you'll learn how to write beautiful, structured, and maintainable JavaScript by applying classical and modern design patterns to the language. If you want to keep your code efficient, more manageable, and up-to-date with the latest best practices, this book is for you. Explore many popular design patterns, including Modules, Observers, Facades, and Mediators. Learn how modern architectural patterns—such as MVC, MVP, and MVVM—are useful from the perspective of a modern web application developer. This book also walks experienced JavaScript developers through modern module formats, how to namespace code effectively, and other essential topics. Learn the structure of design patterns and how they are written Understand different pattern categories, including creational, structural, and behavioral Walk through more than 20 classical and modern design patterns in JavaScript Use several options for writing modular code—including the Module pattern, Asynchronous Module Definition (AMD), and CommonJS Discover design patterns implemented in the jQuery library Learn popular design patterns for writing maintainable jQuery plug-ins "This

book should be in every JavaScript developer ' s hands. It ' s the go-to book on JavaScript patterns that will be read and referenced many times in the future."—André Hansson, Lead Front-End Developer, presis!

Continuous integration is a software engineering process designed to minimize "integration hell." It's a coordinated development approach that blends the best practices in software delivery. For .NET developers, especially, adopting these new approaches and the tools that support them can require rethinking the development process altogether. Continuous Integration in .NET is a tutorial for developers and team leads that teaches readers how to re-imagine their development strategy by creating a consistent continuous integration process. This book shows how to build on the tools they already know - .NET Framework and Visual Studio - and to use powerful software like MSBuild, Subversion, TFS 2010, Team City, CruiseControl.NET, NUnit, and Selenium. Purchase of the print book comes with an offer of a free PDF, ePub, and Kindle eBook from Manning. Also available is all code from the book.

The .NET and COM Interoperability Handbook
Implementation Patterns

The Windows Interface

MITRE Systems Engineering Guide

Programming in the .NET Environment

Visual Basic 2015 Unleashed

Summary The Art of Unit Testing, Second Edition guides you step by step from writing your first simple tests to developing robust test sets that are maintainable, readable, and trustworthy. You'll master the foundational ideas and quickly move to high-value subjects like mocks, stubs, and isolation, including frameworks such as Moq, FakeItEasy, and Typemock Isolator. You'll explore test patterns and organization, working with legacy code, and even "untestable" code. Along the way, you'll learn about integration testing and techniques and tools for testing databases and other technologies. About this Book You know you should be unit testing, so why aren't you doing it? If you're new to unit testing, if you find unit testing tedious, or if you're just not getting enough payoff for the effort you put into it, keep reading. The Art of Unit Testing, Second Edition guides you step by step from writing your first simple unit tests to building complete test sets that are maintainable, readable, and trustworthy. You'll move quickly to more complicated subjects like mocks and stubs, while learning to use isolation (mocking) frameworks like Moq, FakeItEasy, and Typemock Isolator. You'll explore test patterns and organization, refactor code applications, and learn how to test "untestable" code. Along the way, you'll learn about integration testing and techniques for testing with databases. The examples in the book use C#, but will benefit anyone using a statically typed language such as Java or C++. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. What's Inside Create readable, maintainable, trustworthy tests Fakes, stubs, mock objects, and isolation (mocking) frameworks Simple dependency injection techniques Refactoring legacy code About the Author Roy Osherove has been coding for over 15 years, and he consults and trains teams worldwide on the gentle art of unit testing and test-driven development. His blog is at ArtOfUnitTesting.com. Table of Contents PART 1 GETTING STARTED The basics of unit testing A first unit test PART 2 CORE TECHNIQUES Using stubs to break dependencies Interaction testing using mock objects Isolation (mocking) frameworks Digging deeper into isolation frameworks PART 3 THE TEST CODE Test hierarchies and organization The pillars of good unit tests PART 4 DESIGN AND PROCESS Integrating unit testing into the organization Working with legacy code Design and testability The way developers design, build, and run software has changed significantly with the evolution of microservices and containers. These modern architectures use new primitives that require a different set of practices than most developers, tech leads, and architects are accustomed to. With this focused guide, Bilgin Ibryam and Roland Huß from Red Hat provide common reusable elements, patterns, principles, and practices for designing and implementing cloud-native applications on Kubernetes. Each pattern includes a description of the problem and a proposed solution with Kubernetes specifics. Many patterns are also backed by concrete code examples. This book is ideal for developers already familiar with basic Kubernetes concepts who want to learn common cloud native patterns. You ' ll learn about the following pattern categories: Foundational patterns cover the core principles and practices for building container-based cloud-native applications. Behavioral patterns explore finer-grained concepts for managing various types of container and platform interactions. Structural patterns help you organize containers within a pod, the atom of the Kubernetes platform. Configuration patterns provide insight into how application configurations can be handled in Kubernetes. Advanced patterns covers more advanced topics such as extending the platform with operators.

With Visual Basic 2015, the Visual Basic programming language has been extended with 16 new language features and syntactical constructs, plus the coding experience in Visual Studio 2015 adds 8 new great possibilities that help developers write code more quickly and efficiently at the same time. In the end, at least 11 new features have been added to the tooling in Visual Studio 2015 that are specific to Visual Basic code and apps. The combination of syntax, coding experience, and tooling dramatically enhances the development experience with Visual Basic 2015. More than just a language reference, this book teaches developers of all levels - from an early Visual Basic developer to one with a great deal of experience - the fundamentals of developing all types of applications in Visual Basic. The author clearly explains the Visual Basic through the use of practical examples, tips, and tricks. This book has been extended and integrated with the many new features in Visual Basic 2015.

Software -- Software Engineering.

Companion volume

Programming Ruby

C# 8 and .NET Core 3 Projects Using Azure

The Art of Unit Testing

Supporting Parents of Children Ages 0-8

Representing Informational Relationships

Edited by a Lead Program Manager on Microsoft's .NET Framework team, .NET Framework Standard Library Annotated Reference, Volume 1, is the definitive reference for the .NET Framework base class library. This book utilizes extensive annotations and code samples from the creators of the technology to move beyond the online documentation and provide .NET developers with a dictionary-style reference to the most-used parts of the Framework. This volume covers a subset of the ISO CLI Standards, including the Base Class Library and the Extended Numerics Library. In the printed book you will find informative overviews of each namespace covered and an easy-to-follow alphabetic reference of types in the standard, including type-level descriptions, sample code with output, and annotations from the design team and standardization committee. With the ECMA and ISO standards as its core, this book includes: Annotations from key members of the Microsoft design team and the Standardization committee. Comments cover everything from design rationale and history to common problems and shortcomings. An overview of each namespace, describing its functionality and the inheritance hierarchy of types it defines. Type descriptions. Each type is covered in its own chapter, with a detailed description of how the type is to be used and a quick reference of the C# declaration syntax for all members defined on the type. Also noted: which members are only available in the Microsoft implementation of the .NET Framework, which are not available in the .NET Compact Framework, and which are only available in V1.1 of the .NET Framework. Code samples. Types are illustrated by fully compilable code samples with output included. Reference tabs and an exhaustive index, which allow readers to quickly and easily navigate the text. Reusable source code for more than one thousand samples. All code has been tested with versions 1.0, 1.1, and the 2.0 technical preview of the .NET Framework, and, where appropriate, with the .NET Compact Framework.

Dan Fox's no-nonsense approach cuts to the heart of issues corporate developers need most to use ADO.NET in real-world applications.

Summary Dependency Injection Principles, Practices, and Patterns teaches you to use DI to reduce hard-coded dependencies between application components. You'll start by learning what DI is and what types of applications will benefit from it. Then, you'll work through concrete scenarios using C# and the .NET framework to implement DI in your own projects. As you dive into the thoroughly-explained examples, you'll develop a foundation you can apply to any of the many DI libraries for .NET and .NET Core. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Dependency Injection (DI) is a great way to reduce tight coupling between software components. Instead of hard-coding dependencies, such as specifying a database driver, you make those connections through a third party. Central to application frameworks like ASP.NET Core, DI enables you to better manage changes and other complexity in your software. About the Book Dependency Injection Principles, Practices, and Patterns is a revised and expanded edition of the bestselling classic Dependency Injection in .NET. It teaches you DI from the ground up, featuring relevant examples, patterns, and anti-patterns for creating loosely coupled, well-structured applications. The well-annotated code and diagrams use C# examples to illustrate principles that work flawlessly with modern object-oriented languages and DI libraries. What's Inside Refactoring existing code into loosely coupled code DI techniques that work with statically typed OO languages Integration with common .NET frameworks Updated examples illustrating DI in .NET Core About the Reader For intermediate OO developers. About the Authors Mark Seemann is a programmer, software architect, and speaker who has been working with software since 1995, including six years with Microsoft. Steven van Deursen is a seasoned .NET developer and architect, and the author and maintainer of the Simple Injector DI library. Table of Contents PART 1 Putting Dependency Injection on the map The basics of Dependency Injection: What, why, and how Writing tightly coupled code Writing loosely coupled code PART 2 Catalog DI patterns DI anti-patterns Code smells PART 3 Pure DI Application composition Object lifetime Interception Aspect-Oriented Programming by design Tool-based Aspect-Oriented Programming PART 4 DI Containers DI Container introduction The Autofac DI Container The Simple Injector DI Container The Microsoft.Extensions.DependencyInjection DI Container

Praise for the first edition: "This excellent text will be useful to every system engineer (SE) regardless of the domain. It covers ALL relevant SE material and does so in a very clear, methodical fashion. The breadth and depth of the author's presentation of SE principles and practices is outstanding." -Philip Allen This textbook presents a comprehensive, step-by-step guide to System Engineering analysis, design, and development via an integrated set of concepts, principles, practices, and methodologies. The methods presented in this text apply to any type of human system -- small, medium, and large

organizational systems and system development projects delivering engineered systems or services across multiple business sectors such as medical, transportation, financial, educational, governmental, aerospace and defense, utilities, political, and charity, among others. Provides a common focal point for "bridging the gap" between and unifying System Users, System Acquirers, multi-discipline System Engineering, and Project, Functional, and Executive Management education, knowledge, and decision-making for developing systems, products, or services Each chapter provides definitions of key terms, guiding principles, examples, author's notes, real-world examples, and exercises, which highlight and reinforce key SE&D concepts and practices Addresses concepts employed in Model-Based Systems Engineering (MBSE), Model-Driven Design (MDD), Unified Modeling Language (UML) / Systems Modeling Language (SysML), and Agile/Spiral/V-Model Development such as user needs, stories, and use cases analysis; specification development; system architecture development; User-Centric System Design (UCSD); interface definition & control; system integration & test; and Verification & Validation (V&V) Highlights/introduces a new 21st Century Systems Engineering & Development (SE&D) paradigm that is easy to understand and implement. Provides practices that are critical staging points for technical decision making such as Technical Strategy Development; Life Cycle requirements; Phases, Modes, & States; SE Process; Requirements Derivation; System Architecture Development, User-Centric System Design (UCSD); Engineering Standards, Coordinate Systems, and Conventions; et al. Thoroughly illustrated, with end-of-chapter exercises and numerous case studies and examples, Systems Engineering Analysis, Design, and Development, Second Edition is a primary textbook for multi-discipline, engineering, system analysis, and project management undergraduate/graduate level students and a valuable reference for professionals.

Design Patterns

Parenting Matters

APPLYING UML & PATTERNS 3RD EDITION

Framework Design Guidelines: Conventions, Idioms, And Patterns For Reusable .Net Libraries, (with Dvd)

Designing Data Visualizations

Conventions, Idioms, and Patterns for Reusable .NET Libraries, 3rd Edition

PHP is experiencing a renaissance, though it may be difficult to tell with all of the outdated PHP tutorials online. With this practical guide, you'll learn how PHP has become a full-featured, mature language with object-orientation, namespaces, and a growing collection of reusable component libraries. Author Josh Lockhart—creator of PHP The Right Way, a popular initiative to encourage PHP best practices—reveals these new language features in action. You'll learn best practices for application architecture and planning, databases, security, testing, debugging, and deployment. If you have a basic understanding of PHP and want to bolster your skills, this is your book. Learn modern PHP features, such as namespaces, traits, generators, and closures Discover how to find, use, and create PHP components Follow best practices for application security, working with databases, errors and exceptions, and more Learn tools and techniques for deploying, tuning, testing, and profiling your PHP applications Explore Facebook's HVVM and Hack language implementations—and how they affect modern PHP Build a local development environment that closely matches your production server

Programming WCF Services is the authoritative, bestselling guide to Microsoft's unified platform for developing modern service-oriented applications on Windows. Hailed as the definitive treatment of WCF, this book provides unique insight, rather than documentation, to help you learn the topics and skills you need for building WCF-based applications that are maintainable, extensible, and reusable. Author Juval Löwy -- one of the world's top .NET experts -- revised this edition to include the newest productivity-enhancing features of .NET Framework 4 and the Azure AppFabric Service Bus, as well as the latest WCF ideas and techniques. By teaching you the why and the how of WCF programming, Programming WCF Services will help you master WCF and make you a better software engineer. Learn about WCF architecture and essential building blocks, including key concepts such as reliability and transport sessions Use built-in features such as service hosting, instance and concurrency management, transactions, disconnected queued calls, security, and discovery Master the Windows Azure AppFabric Service Bus, the most revolutionary piece of the new cloud computing initiative Increase your productivity and the quality of your WCF services by taking advantage of relevant design options, tips, and best practices in Löwy's ServiceModelEx framework Discover the rationale behind particular design decisions, and delve into rarely understood aspects of WCF development "If you choose to learn WCF, you've chosen well. If you choose to learn with the resource and guidance of Juval Löwy, you've done even better... there are few people alive today who know WCF as well." --Ron Jacobs, Senior Technical Evangelist for WCF, Microsoft Corporation

This concise guide for experienced programmers and software architects is a complete no-nonsense overview of key elements and programming languages central to all .NET application development.

Larman covers how to investigate requirements, create solutions and then translate designs into code, showing developers how to make practical use of the most significant recent developments. A summary of UML notation is included

Kubernetes Patterns

NET Framework Standard Library Annotated Reference

A Guide to Building Information Modeling for Owners, Designers, Engineers, Contractors, and Facility Managers

The DIME Analytics Data Handbook

Coding in Delphi

50 Specific Ways to Improve Your C#

A software architect's digest of core practices, pragmatically applied Designing effective architecture is your best strategy for managing project complexity—and improving your results. But the principles and practices of software architecting—what the authors call the “science of hard decisions”—have been evolving for cloud, mobile, and other shifts. Now fully revised and updated, this book shares the knowledge and real-world perspectives that enable you to design for success—and deliver more successful solutions. In this fully updated Second Edition, you will: Learn how only a deep understanding of domain can lead to appropriate architecture Examine domain-driven design in both theory and implementation Shift your approach to code first, model later—including multilayer architecture Capture the benefits of prioritizing software maintainability See how readability, testability, and extensibility lead to code quality Take a user experience (UX) first approach, rather than designing for data Review patterns for organizing business logic Use event sourcing and CQRS together to model complex business domains more effectively Delve inside the persistence layer, including patterns and implementation.

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.

This is the eBook version of the print title, Framework Design Guidelines, Second Edition . Access to all the samples, applications, and content on the DVD is available through the product catalog page www.informit.com/title/9780321545619 Navigate to the “Downloads” tab and click on the “DVD Contents” links - see instructions in back pages of your eBook. Framework Design Guidelines, Second Edition, teaches developers the best practices for designing reusable libraries for the Microsoft .NET Framework. Expanded and updated for .NET 3.5, this new edition focuses on the design issues that directly affect the programmability of a class library, specifically its publicly accessible APIs. This book can improve the work of any .NET developer producing code that other developers will use. It includes copious annotations to the guidelines by thirty-five prominent architects and practitioners of the .NET Framework, providing a lively discussion of the reasons for the guidelines as well as examples of when to break those guidelines. Microsoft architects Krzysztof Cwalina and Brad Abrams teach framework design from the top down. From their significant combined experience and deep insight, you will learn The general philosophy and fundamental principles of framework design Naming guidelines for the various parts of a framework Guidelines for the design and extending of types and members of types Issues affecting—and guidelines for ensuring—extensibility How (and how not) to design exceptions Guidelines for—and examples of—common framework design patterns Guidelines in this book are presented in four major forms: Do, Consider, Avoid, and Do not. These directives help focus attention on practices that should always be used, those that should generally be used, those that should rarely be used, and those that should never be used. Every guideline includes a discussion of its applicability, and most include a code example to help illuminate the dialogue. Framework Design Guidelines, Second Edition, is the only definitive source of best practices for managed code API development, direct from the architects themselves. A companion DVD includes the Designing .NET Class Libraries video series, instructional presentations by the authors on design guidelines for developing classes and components that extend the .NET Framework. A sample API specification and other useful resources and tools are also included.

The official guidelines and standards for designing a Windows 3 user interface. This book discusses the principles of design that are fundamental to creating a well-designed, visually and functionally consistent user interface. An essential reference for all Windows programmers.

Learning JavaScript Design Patterns

The Algorithm Design Manual

Concepts, Principles, and Practices

CLR Via C#

New Features and Good Practices

Development Research in Practice

COM/COM+. and .NET will need to interoperate for a long time to come as companies undergo the migration to .NET. Gordon's book is a natural fit for anyone with COM applications that need to work with .NET, as it provides practical migration advice for developers moving their applications from COM/COM+ to .NET.

In More Effective C#, Microsoft C# MVP and Regional Director Bill Wagner introduces fifty brand-new ways to write more efficient and more robust software. This all-new book follows the same format as Wagner's best-selling Effective C# (Addison-Wesley, 2005), providing clear, practical explanations, expert tips, and plenty of realistic code examples. Wagner shows how to make the most of powerful innovations built into Microsoft's new C# 3.0 and .NET Framework 3.5, as well as advanced C# language capabilities not covered in his previous book. Drawing on his unsurpassed C# experience, the author reveals new best practices for working with LINQ, generics, metaprogramming, and many other features. He also uncovers practices that compromise performance or reliability and shows exactly how to avoid them. More Effective C# shows how to Use generics to express your design intent more effectively Master advanced generics techniques, such as constraints, method constraints, and generic specialization Use the multithreaded techniques you'll need to work with the .NET framework every day Express modern design idioms using the rich palette of C# language features Successfully mix object oriented and functional programming constructs Create composable interfaces and avoid confusion in public interfaces Use extension methods to separate contracts from implementation Program successfully with C# closures and anonymous types Write more effective LINQ queries Make the most of LINQ Lazy Evaluation Queries and Lambda Expressions Distinguish and convert between delegates and expression trees Efficiently utilize nullable types and partial classes Use implicit properties for mutable, nonserializable data You're already a successful C# programmer—this book can help you become an outstanding one.

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.

A guide to the workings of the common language runtime, Microsoft .NET, and C#.

Reusable Elements for Designing Cloud-Native Applications

Exploring Social Psychology

Sams Teach Yourself ADO.NET in 21 Days

An Introduction to Requirements Engineering

The Rails Way

Mastering WCF and the Azure AppFabric Service Bus

Decades of research have demonstrated that the parent-child dyad and the environment of the family—which includes all primary caregivers—are at the foundation of children's well-being and healthy development. From birth, children are learning and rely on parents and the other caregivers in their lives to protect and care for them. The impact of parents may never be greater than during the earliest years of life, when a child's brain is rapidly developing and when nearly all of her or his experiences are created and shaped by parents and the family environment. Parents help children build and refine their knowledge and skills, charting a trajectory for their health and well-being during childhood and beyond. The experience of parenting also impacts parents themselves. For instance, parenting can enrich and give focus to parents' lives; generate stress or calm; and create any number of emotions, including feelings of happiness, sadness, fulfillment, and anger. Parenting of young children today takes place in the context of significant ongoing developments. These include: a rapidly growing body of science on early childhood, increases in funding for programs and services for families, changing demographics of the U.S. population, and greater diversity of family structure. Additionally, parenting is increasingly being shaped by technology and increased access to information about parenting. Parenting Matters identifies parenting knowledge, attitudes, and practices associated with positive developmental outcomes in children ages 0-8; universal/preventive and targeted strategies used in a variety of settings that have been effective with parents of young children and that support the identified knowledge, attitudes, and practices; and barriers to and facilitators for parents' use of practices that lead to healthy child outcomes as well as their participation in effective programs and services. This report makes recommendations directed at an array of stakeholders, for promoting the wide-scale adoption of effective programs and services for parents and on areas that warrant further research to inform policy and practice. It is meant to serve as a roadmap for the future of parenting policy, research, and practice in the United States.

Discover BIM: A better way to build better buildings Building Information Modeling (BIM) offers a novel approach to design, construction, and facility management in which a digital representation of the building product and process is used to facilitate the exchange and interoperability of information in digital format. BIM is beginning to change the way buildings look, the way they function, and the ways in which they are designed and built. The BIM Handbook, Third Edition provides an in-depth understanding of BIM technologies, the business and organizational issues associated with its implementation, and the profound advantages that effective use of BIM can provide to all members of a project team. Updates to this edition include: Information on the ways in which professionals should use BIM to gain maximum value New topics such as collaborative working, national and major construction clients, BIM standards and guides A discussion on how various professional roles have expanded through the widespread use and the new avenues of BIM practices and services A wealth of new case studies that clearly illustrate exactly how BIM is applied in a wide variety of conditions Painting a colorful and thorough picture of the state of the art in building information modeling, the BIM Handbook, Third Edition guides readers to successful implementations, helping them to avoid needless frustration and costs and take full advantage of this paradigm-shifting approach to construct better buildings that consume fewer materials and require less time, labor, and capital resources.

Development Research in Practice leads the reader through a complete empirical research project, providing links to continuously updated resources on the DIME Wiki as well as illustrative examples from the Demand for Safe Spaces study. The handbook is intended to train users of development data how to handle data effectively, efficiently, and ethically. "In the DIME Analytics Data Handbook, the DIME team has produced an extraordinary public good: a detailed, comprehensive, yet easy-to-read manual for how to manage a data-oriented research project from beginning to end. It offers everything from big-picture guidance on the determinants of high-quality empirical research, to specific practical guidance on how to implement specific workflows—and includes computer code! I think it will prove durably useful to a broad range of researchers in international development and beyond, and I learned new practices that I plan on adopting in my own research group." —Marshall Burke, Associate Professor, Department of Earth System Science, and Deputy Director, Center on Food Security and the Environment, Stanford University "Data are the essential ingredient in any research or evaluation project, yet there has been too little attention to standardized practices to ensure high-quality data collection, handling, documentation, and exchange. Development Research in Practice: The DIME Analytics Data Handbook seeks to fill that gap with practical guidance and tools, grounded in ethics and efficiency, for data management at every stage in a research project. This excellent resource sets a new standard for the field and is an essential reference for all empirical researchers." —Ruth E. Levine, PhD, CEO, IDinsight "Development Research in Practice: The DIME Analytics Data Handbook is an important resource and a must-read for all development economists, empirical social scientists, and public policy analysts. Based on decades of pioneering work at the World Bank on data collection, measurement, and analysis, the handbook provides valuable tools to allow research teams to more efficiently and transparently manage their work flows—yielding more credible analytical conclusions as a result." —Edward Miguel, Oxfam Professor in Environmental and Resource Economics and Faculty Director of the Center for Effective Global Action, University of California, Berkeley "The DIME Analytics Data Handbook is a must-read for any data-driven researcher looking to create credible research outcomes and policy advice. By meticulously describing detailed steps, from project planning via ethical and responsible code and data practices to the publication of research papers and associated replication packages, the DIME handbook makes the complexities of transparent and credible research easier." —Lars Vilhuber, Data Editor, American Economic Association,

and Executive Director, Labor Dynamics Institute, Cornell University

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