

NET Domain Driven Design With C Problem Design Solution Programmer To Programmer

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Applying Domain-driven Design and Patterns - Jimmy Nilsson 2006
Featuring a Foreword by Martin Fowler, author of the bestselling "Patterns of Enterprise Application Architecture," Nilsson's practical guide shows how to apply the theories in Fowler's book. While the examples are in C# and .NET, the principles can be used by developers using any language and Integrated Development Environment (IDE).
The British National Bibliography - Arthur James Wells 2009

Microservices Patterns - Chris Richardson 2018-10-27
"A comprehensive overview of the challenges teams face when moving to microservices, with industry-tested solutions to these problems." - Tim Moore, Lightbend
44 reusable patterns to develop and deploy reliable production-quality microservices-based applications, with worked examples in Java
Key Features
44 design patterns for building and deploying microservices applications
Drawing on decades of unique experience from author and microservice architecture pioneer Chris Richardson
A pragmatic approach to the benefits and the drawbacks of microservices architecture
Solve service decomposition, transaction management, and inter-service communication
Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.
About The Book
Microservices Patterns teaches you 44 reusable patterns to reliably develop and deploy production-quality microservices-based applications. This invaluable set of design patterns builds on decades of distributed system experience, adding new patterns for composing services into systems that scale and perform under real-world conditions. More than just a patterns catalog, this practical guide with worked examples offers industry-tested advice to help you design, implement, test, and deploy your microservices-based application. What You Will Learn
How (and why!) to use microservices architecture
Service decomposition strategies
Transaction management and querying patterns
Effective testing strategies
Deployment patterns
This Book Is Written For
Written for enterprise developers familiar with standard enterprise application architecture. Examples are in Java.
About The Author
Chris Richardson is a Java Champion, a JavaOne rock star, author of Manning's POJOs in Action, and creator of the original CloudFoundry.com.
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Escaping monolithic hell
Decomposition strategies
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External API patterns
Testing microservices: part 1
Testing microservices: part 2
Developing production-ready services
Deploying microservices
Refactoring to microservices

Domain-driven Design Using Naked Objects - Dan Haywood 2009
Provides information on domain-driven design to guild application software for enterprise applications.

Functional and Reactive Domain Modeling - Debasish Ghosh 2016-10-04

Summary
Functional and Reactive Domain Modeling teaches you how to think of the domain model in terms of pure functions and how to compose them to build larger abstractions. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.
About the Technology
Traditional distributed applications won't cut it in the reactive world of microservices, fast data, and sensor networks. To capture their dynamic relationships and dependencies, these systems require a different approach to domain modeling. A domain model composed of pure functions is a more natural way of representing a process in a reactive system, and it maps directly onto technologies and patterns like Akka, CQRS, and event sourcing.
About the Book
Functional and Reactive Domain Modeling teaches you

consistent, repeatable techniques for building domain models in reactive systems. This book reviews the relevant concepts of FP and reactive architectures and then methodically introduces this new approach to domain modeling. As you read, you'll learn where and how to apply it, even if your systems aren't purely reactive or functional. An expert blend of theory and practice, this book presents strong examples you'll return to again and again as you apply these principles to your own projects.
What's Inside
Real-world libraries and frameworks
Establish meaningful reliability guarantees
Isolate domain logic from side effects
Introduction to reactive design patterns
About the Reader
Readers should be comfortable with functional programming and traditional domain modeling. Examples use the Scala language.
About the Author
Software architect Debasish Ghosh was an early adopter of reactive design using Scala and Akka. He's the author of DSLs in Action, published by Manning in 2010.
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Functional domain modeling: an introduction
Scala for functional domain models
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Functional patterns for domain models
Modularization of domain models
Being reactive
Modeling with reactive streams
Reactive persistence and event sourcing
Testing your domain model
Summary - core thoughts and principles

Land and Post-Conflict Peacebuilding - Jon Unruh 2013-07-18
Claims to land and territory are often a cause of conflict, and land issues present some of the most contentious problems for post-conflict peacebuilding. Among the land-related problems that emerge during and after conflict are the exploitation of land-based resources in the absence of authority, the disintegration of property rights and institutions, the territorial effect of battlefield gains and losses, and population displacement. In the wake of violent conflict, reconstitution of a viable land-rights system is crucial: an effective post-conflict land policy can foster economic recovery, help restore the rule of law, and strengthen political stability. But the reestablishment of land ownership, land use, and access rights for individuals and communities is often complicated and problematic, and poor land policies can lead to renewed tensions. In twenty-one chapters by twenty-five authors, this book considers experiences with, and approaches to, post-conflict land issues in seventeen countries and in varied social and geographic settings. Highlighting key concepts that are important for understanding how to address land rights in the wake of armed conflict, the book provides a theoretical and practical framework for policy makers, researchers, practitioners, and students. Land and Post-Conflict Peacebuilding is part of a global initiative to identify and analyze lessons in post-conflict peacebuilding and natural resource management. The project has generated six edited books of case studies and analyses, with contributions from practitioners, policy makers, and researchers. Other books in the series address high-value resources, water, livelihoods, assessing and restoring resources, and governance.

Hands-On Design Patterns with C# and .NET Core - Gaurav Arora 2019-07-05

Apply design patterns to solve problems in software architecture and programming using C# 7.x and .NET Core 2
Key Features
Enhance your programming skills by implementing efficient design patterns for C# and .NET
Explore design patterns for functional and reactive programming to build robust and scalable applications
Discover how to work effectively with microservice and serverless architectures
Book Description
Design patterns are essentially reusable solutions to common programming problems. When used correctly, they meet crucial software requirements with ease and reduce costs. This book will uncover effective ways to use design patterns and demonstrate their implementation with executable code specific to both C# and .NET Core. Hands-On Design Patterns with C# and .NET Core begins with an overview of object-oriented

programming (OOP) and SOLID principles. It provides an in-depth explanation of the Gang of Four (GoF) design patterns such as creational, structural, and behavioral. The book then takes you through functional, reactive, and concurrent patterns, helping you write better code with streams, threads, and coroutines. Toward the end of the book, you'll learn about the latest trends in architecture, exploring design patterns for microservices, serverless, and cloud native applications. You'll even understand the considerations that need to be taken into account when choosing between different architectures such as microservices and MVC. By the end of the book, you will be able to write efficient and clear code and be comfortable working on scalable and maintainable projects of any size. What you will learn

Make your code more flexible by applying SOLID principles
Follow the Test-driven development (TDD) approach in your .NET Core projects
Get to grips with efficient database migration, data persistence, and testing techniques
Convert a console application to a web application using the right MVP
Write asynchronous, multithreaded, and parallel code
Implement MVVM and work with RxJS and AngularJS to deal with changes in databases
Explore the features of microservices, serverless programming, and cloud computing
Who this book is for
If you have a basic understanding of C# and the .NET Core framework, this book will help you write code that is easy to reuse and maintain with the help of proven design patterns that you can implement in your code.

[Entity Framework Core in Action](#) - Jon Smith 2018-07-15

Summary Entity Framework Core in Action teaches you how to access and update relational data from .NET applications. Following the crystal-clear explanations, real-world examples, and around 100 diagrams, you'll discover time-saving patterns and best practices for security, performance tuning, and unit testing. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

About the Technology
There's a mismatch in the way OO programs and relational databases represent data. Entity Framework is an object-relational mapper (ORM) that bridges this gap, making it radically easier to query and write to databases from a .NET application. EF creates a data model that matches the structure of your OO code so you can query and write to your database using standard LINQ commands. It will even automatically generate the model from your database schema.

About the Book
Using crystal-clear explanations, real-world examples, and around 100 diagrams, Entity Framework Core in Action teaches you how to access and update relational data from .NET applications. You'll start with a clear breakdown of Entity Framework, long with the mental model behind ORM. Then you'll discover time-saving patterns and best practices for security, performance tuning, and even unit testing. As you go, you'll address common data access challenges and learn how to handle them with Entity Framework. What's Inside
Querying a relational database with LINQ
Using EF Core in business logic
Integrating EF with existing C# applications
Applying domain-driven design to EF Core
Getting the best performance out of EF Core
Covers EF Core 2.0 and 2.1
About the Reader
For .NET developers with some awareness of how relational databases work.

About the Author
Jon P Smith is a full-stack developer with special focus on .NET Core and Azure.

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Appendix A - A brief introduction to LINQ
Appendix B - Early information on EF Core version 2.1

[Programming Entity Framework](#) - Julia Lerman 2010-08-09

Get a thorough introduction to ADO.NET Entity Framework 4 -- Microsoft's core framework for modeling and interacting with data in .NET applications. The second edition of this acclaimed guide provides a hands-on tour of the framework latest version in Visual Studio 2010 and .NET Framework 4. Not only will you learn how to use EF4 in a variety of applications, you'll also gain a deep understanding of its architecture and APIs. Written by Julia Lerman, the leading independent authority on the framework, Programming Entity Framework covers it all -- from the Entity Data Model and Object Services to WCF Services, MVC Apps, and unit testing. This book highlights important changes for experienced developers familiar with the earlier version. Understand the core

concepts you need to make the best use of the EF4 in your applications
Learn to query your data, using either LINQ to Entities or Entity SQL
Create Windows Forms, WPF, ASP.NET Web Forms, and ASP.NET MVC applications
Build and consume WCF Services, WCF Data Services, and WCF RIA Services
Use Object Services to work directly with your entity objects
Create persistent ignorant entities, repositories, and write unit tests
Delve into model customization, relationship management, change tracking, data concurrency, and more
Get scores of reusable examples -- written in C# (with notes on Visual Basic syntax) -- that you can implement right away

Architecture Patterns with Python - Harry Percival 2020-03-05

As Python continues to grow in popularity, projects are becoming larger and more complex. Many Python developers are now taking an interest in high-level software design patterns such as hexagonal/clean architecture, event-driven architecture, and the strategic patterns prescribed by domain-driven design (DDD). But translating those patterns into Python isn't always straightforward. With this hands-on guide, Harry Percival and Bob Gregory from MADE.com introduce proven architectural design patterns to help Python developers manage application complexity—and get the most value out of their test suites. Each pattern is illustrated with concrete examples in beautiful, idiomatic Python, avoiding some of the verbosity of Java and C# syntax. Patterns include: Dependency inversion and its links to ports and adapters (hexagonal/clean architecture) Domain-driven design's distinction between entities, value objects, and aggregates Repository and Unit of Work patterns for persistent storage Events, commands, and the message bus Command-query responsibility segregation (CQRS) Event-driven architecture and reactive microservices

Patterns, Principles, and Practices of Domain-Driven Design -

Scott Millett 2015-05-04

Methods for managing complex software construction following the practices, principles and patterns of Domain-Driven Design with code examples in C# This book presents the philosophy of Domain-Driven Design (DDD) in a down-to-earth and practical manner for experienced developers building applications for complex domains. A focus is placed on the principles and practices of decomposing a complex problem space as well as the implementation patterns and best practices for shaping a maintainable solution space. You will learn how to build effective domain models through the use of tactical patterns and how to retain their integrity by applying the strategic patterns of DDD. Full end-to-end coding examples demonstrate techniques for integrating a decomposed and distributed solution space while coding best practices and patterns advise you on how to architect applications for maintenance and scale. Offers a thorough introduction to the philosophy of DDD for professional developers Includes masses of code and examples of concept in action that other books have only covered theoretically Covers the patterns of CQRS, Messaging, REST, Event Sourcing and Event-Driven Architectures Also ideal for Java developers who want to better understand the implementation of DDD

[Clean Architecture](#) - Robert C. Martin 2017-09-12

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.

Fowler - Martin Fowler 2012-03-09

The practice of enterprise application development has benefited from the emergence of many new enabling technologies. Multi-tiered object-oriented platforms, such as Java and .NET, have become commonplace. These new tools and technologies are capable of building powerful applications, but they are not easily implemented. Common failures in enterprise applications often occur because their developers do not understand the architectural lessons that experienced object developers have learned. *Patterns of Enterprise Application Architecture* is written in direct response to the stiff challenges that face enterprise application developers. The author, noted object-oriented designer Martin Fowler, noticed that despite changes in technology—from Smalltalk to CORBA to Java to .NET—the same basic design ideas can be adapted and applied to solve common problems. With the help of an expert group of contributors, Martin distills over forty recurring solutions into patterns. The result is an indispensable handbook of solutions that are applicable to any enterprise application platform. This book is actually two books in one. The first section is a short tutorial on developing enterprise applications, which you can read from start to finish to understand the scope of the book's lessons. The next section, the bulk of the book, is a detailed reference to the patterns themselves. Each pattern provides usage and implementation information, as well as detailed code examples in Java or C#. The entire book is also richly illustrated with UML diagrams to further explain the concepts. Armed with this book, you will have the knowledge necessary to make important architectural decisions about building an enterprise application and the proven patterns for use when building them. The topics covered include · Dividing an enterprise application into layers · The major approaches to organizing business logic · An in-depth treatment of mapping between objects and relational databases · Using Model-View-Controller to organize a Web presentation · Handling concurrency for data that spans multiple transactions · Designing distributed object interfaces

Enterprise Application Development with C# 9 and .NET 5 -

Ravindra Akella 2021-03-19

Become a professional .NET developer by learning expert techniques for building enterprise-grade applications Key FeaturesExplore the advanced features of C# and .NET 5 to enhance your code and productivityFollow clear and easy instructions for building an end-to-end enterprise applicationLearn how to build scalable web applications and host them on the cloudBook Description .NET Core is one of the most popular programming platforms in the world for an increasingly large community of developers thanks to its excellent cross-platform support. This book will show you how to confidently use the features of .NET 5 with C# 9 to build robust enterprise applications. Throughout the book, you'll work on creating an enterprise app and adding a key component to the app with each chapter, before finally getting it ready for testing and deployment. You'll learn concepts relating to advanced data structures, the Entity Framework Core, parallel programming, and dependency injection. As you progress, you'll cover various authentication and authorization schemes provided by .NET Core to make your apps and APIs secure. Next, you'll build web apps using ASP.NET Core 5 and deploy them on the cloud while working with various cloud components using Azure. The book then shows you how to use the latest Microsoft Visual Studio 2019 and C# 9 to simplify developer tasks, and also explores tips and tricks in Visual Studio 2019 to improve your productivity. Later, you'll discover various testing techniques such as unit testing and performance testing as well as different methods to deploy enterprise apps. By the end of this book, you'll be able to create enterprise apps using the powerful features of .NET 5 and deploy them on the cloud. What you will learnDesign enterprise apps by making the most of the latest features of .NET 5Discover different layers of an app, such as the data layer, API layer, and web layerExplore end-to-end architecture, implement an enterprise web app using .NET and C# 9, and deploy the app on AzureFocus on the core concepts of web application development such as dependency injection, caching, logging, configuration, and authentication, and implement them in .NET 5Integrate the new .NET 5 health and performance check APIs with your appUnderstand how .NET 5 works and contribute to the .NET 5 platformWho this book is for If you are a developer, architect, or senior programmer who wants to leverage the features of .NET 5 and the C# language, as well as grasp essential techniques to build your skills, then this C# .NET 5 book is for you. Beginner to intermediate-level knowledge of the .NET framework and C# programming is required to understand

the concepts covered in this book more effectively.

.NET Domain-Driven Design with C# - Tim McCarthy 2008-06-02

As the first technical book of its kind, this unique resource walks you through the process of building a real-world application using Domain-Driven Design implemented in C#. Based on a real application for an existing company, each chapter is broken down into specific modules so that you can identify the problem, decide what solution will provide the best results, and then execute that design to solve the problem. With each chapter, you'll build a complete project from beginning to end.

Petri Net Technology for Communication-Based Systems - Hartmut Ehrig 2003-11-25

This state-of-the-art survey in the *Advances in Petri Nets* series reports how various well-established and novel Petri net notions and techniques can be employed for modelling communication-based systems, with a particular focus on workflow management and business processes. The book builds on the success of a special program of the German Science Foundation (DFG) on Petri Net Technology as well as on broad participation from the international Petri net research community.

Practical Python Design Patterns - Wessel Badenhorst 2017-10-17

Become a better, more productive programmer through a series of projects that will help you deeply understand and master each of the design patterns covered. In this book you will learn to write elegant "Pythonic" code to solve common programming problems. You will also experience design thinking, by identifying design patterns that would be helpful given a specific problem or situation. Python is eating the world. In recent years it has become so much more than a mere object-oriented, scripting language. Design patterns help you think of and solve problems in chunks. They help you to stand on the shoulders of the giants who have come before, instead of having to reinvent the wheel. *What You Will Learn* Craft cleaner code Increase your effectiveness as a programmer Write more Pythonic code Solve bigger problems Discover optimal solutions to common problems, done in a way that is uniquely Pythonic Who This Book Is For Programmers who are comfortable with Python. It is also guide for people who have mastered other programming languages and who want to make the transition to Python.

The Image of the City - Kevin Lynch 1964-06-15

The classic work on the evaluation of city form. What does the city's form actually mean to the people who live there? What can the city planner do to make the city's image more vivid and memorable to the city dweller? To answer these questions, Mr. Lynch, supported by studies of Los Angeles, Boston, and Jersey City, formulates a new criterion—imageability—and shows its potential value as a guide for the building and rebuilding of cities. The wide scope of this study leads to an original and vital method for the evaluation of city form. The architect, the planner, and certainly the city dweller will all want to read this book.

Working Effectively with Legacy Code - Michael Feathers 2004-09-22

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.

Domain-driven Design - Eric Evans 2004

Describes ways to incorporate domain modeling into software development.

Mastering Visual Studio .NET - Ian Griffiths 2003

A detailed handbook for experienced developers explains how to get the most out of Microsoft's Visual Studio .NET, offering helpful guidelines on how to use its integrated development environment, start-up templates, and other features and tools to create a variety of applications, including

Web services. Original. (Advanced)

The C Programming Language - Brian W. Kernighan 1988

Introduces the features of the C programming language, discusses data types, variables, operators, control flow, functions, pointers, arrays, and structures, and looks at the UNIX system interface

Hands-On Domain-Driven Design with .NET Core - Alexey Zimarev 2019-04-30

Solve complex business problems by understanding users better, finding the right problem to solve, and building lean event-driven systems to give your customers what they really want Key FeaturesApply DDD principles using modern tools such as EventStorming, Event Sourcing, and CQRSLearn how DDD applies directly to various architectural styles such as REST, reactive systems, and microservicesEmpower teams to work flexibly with improved services and decoupled interactionsBook Description Developers across the world are rapidly adopting DDD principles to deliver powerful results when writing software that deals with complex business requirements. This book will guide you in involving business stakeholders when choosing the software you are planning to build for them. By figuring out the temporal nature of behavior-driven domain models, you will be able to build leaner, more agile, and modular systems. You'll begin by uncovering domain complexity and learn how to capture the behavioral aspects of the domain language. You will then learn about EventStorming and advance to creating a new project in .NET Core 2.1; you'll also and write some code to transfer your events from sticky notes to C#. The book will show you how to use aggregates to handle commands and produce events. As you progress, you'll get to grips with Bounded Contexts, Context Map, Event Sourcing, and CQRS. After translating domain models into executable C# code, you will create a frontend for your application using Vue.js. In addition to this, you'll learn how to refactor your code and cover event versioning and migration essentials. By the end of this DDD book, you will have gained the confidence to implement the DDD approach in your organization and be able to explore new techniques that complement what you've learned from the book. What you will learnDiscover and resolve domain complexity together with business stakeholdersAvoid common pitfalls when creating the domain modelStudy the concept of Bounded Context and aggregateDesign and build temporal models based on behavior and not only dataExplore benefits and drawbacks of Event SourcingGet acquainted with CQRS and to-the-point read models with projectionsPractice building one-way flow UI with Vue.jsUnderstand how a task-based UI conforms to DDD principlesWho this book is for This book is for .NET developers who have an intermediate level understanding of C#, and for those who seek to deliver value, not just write code. Intermediate level of competence in JavaScript will be helpful to follow the UI chapters.

NET Programming - Pradeep Kumar Tapadiya 2002

Tapadiya takes a straightforward, hands-on approach to explain everything readers need to know from development to deployment and maintenance for this platform--all from a developer's perspective. Using C# as the primary language, and with plenty of code examples throughout, this book is an excellent way to learn.

Applying Domain-Driven Design and Patterns - Jimmy Nilsson 2006-05-08

Patterns, Domain-Driven Design (DDD), and Test-Driven Development (TDD) enable architects and developers to create systems that are powerful, robust, and maintainable. Now, there's a comprehensive, practical guide to leveraging all these techniques primarily in Microsoft .NET environments, but the discussions are just as useful for Java developers. Drawing on seminal work by Martin Fowler (Patterns of Enterprise Application Architecture) and Eric Evans (Domain-Driven Design), Jimmy Nilsson shows how to create real-world architectures for any .NET application. Nilsson illuminates each principle with clear, well-annotated code examples based on C# 1.1 and 2.0. His examples and discussions will be valuable both to C# developers and those working with other .NET languages and any databases--even with other platforms, such as J2EE. Coverage includes · Quick primers on patterns, TDD, and refactoring · Using architectural techniques to improve software quality · Using domain models to support business rules and validation · Applying enterprise patterns to provide persistence support via NHibernate · Planning effectively for the presentation layer and UI testing · Designing for Dependency Injection, Aspect Orientation, and other new paradigms

Artificial Neural Nets and Genetic Algorithms - Rudolf F. Albrecht 2012-12-06

Artificial neural networks and genetic algorithms both are areas of research which have their origins in mathematical models constructed in order to gain understanding of important natural processes. By focussing

on the process models rather than the processes themselves, significant new computational techniques have evolved which have found application in a large number of diverse fields. This diversity is reflected in the topics which are the subjects of contributions to this volume. There are contributions reporting theoretical developments in the design of neural networks, and in the management of their learning. In a number of contributions, applications to speech recognition tasks, control of industrial processes as well as to credit scoring, and so on, are reflected. Regarding genetic algorithms, several methodological papers consider how genetic algorithms can be improved using an experimental approach, as well as by hybridizing with other useful techniques such as tabu search. The closely related area of classifier systems also receives a significant amount of coverage, aiming at better ways for their implementation. Further, while there are many contributions which explore ways in which genetic algorithms can be applied to real problems, nearly all involve some understanding of the context in order to apply the genetic algorithm paradigm more successfully. That this can indeed be done is evidenced by the range of applications covered in this volume.

Microsoft .NET - Architecting Applications for the Enterprise - Dino Esposito 2014-08-28

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.

Professional ASP.NET Design Patterns - Scott Millett 2010-09-16

Design patterns are time-tested solutions to recurring problems, letting the designer build programs on solutions that have already proved effective Provides developers with more than a dozen ASP.NET examples showing standard design patterns and how using them helpsbuild a richer understanding of ASP.NET architecture, as well as better ASP.NET applications Builds a solid understanding of ASP.NET architecture that can be used over and over again in many projects Covers ASP.NET code to implement many standard patterns including Model-View-Controller (MVC), ETL, Master-Master Snapshot, Master-Slave-Snapshot, Façade, Singleton, Factory, Single Access Point, Roles, Limited View, observer, page controller, common communication patterns, and more

Beyond Databases, Architectures and Structures. Towards Efficient Solutions for Data Analysis and Knowledge Representation - Stanisław Kozielski 2017-05-16

This book constitutes the refereed proceedings of the 13th International Conference entitled Beyond Databases, Architectures and Structures, BDAS 2017, held in Ustron, Poland, in May/June 2017. It consists of 44 carefully reviewed papers selected from 118 submissions. The papers are organized in topical sections, namely big data and cloud computing; artificial intelligence, data mining and knowledge discovery; architectures, structures and algorithms for efficient data processing; text mining, natural language processing, ontologies and semantic web; bioinformatics and biological data analysis; industrial applications; data mining tools, optimization and compression.

Domain-Driven Design in PHP - Carlos Buenosvinos 2017-06-14

Real examples written in PHP showcasing DDD Architectural Styles, Tactical Design, and Bounded Context Integration About This Book Focuses on practical code rather than theory Full of real-world examples that you can apply to your own projects Shows how to build PHP apps using DDD principles Who This Book Is For This book is for PHP developers who want to apply a DDD mindset to their code. You should have a good understanding of PHP and some knowledge of DDD. This book doesn't dwell on the theory, but instead gives you the code that you need. What You Will Learn Correctly design all design elements of

Domain-Driven Design with PHP Learn all tactical patterns to achieve a fully worked-out Domain-Driven Design Apply hexagonal architecture within your application Integrate bounded contexts in your applications Use REST and Messaging approaches In Detail Domain-Driven Design (DDD) has arrived in the PHP community, but for all the talk, there is very little real code. Without being in a training session and with no PHP real examples, learning DDD can be challenging. This book changes all that. It details how to implement tactical DDD patterns and gives full examples of topics such as integrating Bounded Contexts with REST, and DDD messaging strategies. In this book, the authors show you, with tons of details and examples, how to properly design Entities, Value Objects, Services, Domain Events, Aggregates, Factories, Repositories, Services, and Application Services with PHP. They show how to apply Hexagonal Architecture within your application whether you use an open source framework or your own. Style and approach This highly practical book shows developers how to apply domain-driven design principles to PHP. It is full of solid code examples to work through.

Software Architecture with C# 9 and .NET 5 - Gabriel Baptista 2020-12-28

Design scalable and high-performance enterprise applications using the latest features of C# 9 and .NET 5 Key Features Gain fundamental and comprehensive software architecture knowledge and the skillset to create fully modular apps Design high-performance software systems using the latest features of .NET 5 and C# 9 Solve scalability problems in web apps using enterprise architecture patterns Book Description Software architecture is the practice of implementing structures and systems that streamline the software development process and improve the quality of an app. This fully revised and expanded second edition, featuring the latest features of .NET 5 and C# 9, enables you to acquire the key skills, knowledge, and best practices required to become an effective software architect. This second edition features additional explanation of the principles of Software architecture, including new chapters on Azure Service Fabric, Kubernetes, and Blazor. It also includes more discussion on security, microservices, and DevOps, including GitHub deployments for the software development cycle. You will begin by understanding how to transform user requirements into architectural needs and exploring the differences between functional and non-functional requirements. Next, you will explore how to carefully choose a cloud solution for your infrastructure, along with the factors that will help you manage your app in a cloud-based environment. Finally, you will discover software design patterns and various software approaches that will allow you to solve common problems faced during development. By the end of this book, you will be able to build and deliver highly scalable enterprise-ready apps that meet your organization's business requirements. What you will learn Use different techniques to overcome real-world architectural challenges and solve design consideration issues Apply architectural approaches such as layered architecture, service-oriented architecture (SOA), and microservices Leverage tools such as containers, Docker, Kubernetes, and Blazor to manage microservices effectively Get up to speed with Azure tools and features for delivering global solutions Program and maintain Azure Functions using C# 9 and its latest features Understand when it is best to use test-driven development (TDD) as an approach for software development Write automated functional test cases Get the best of DevOps principles to enable CI/CD environments Who this book is for This book is for engineers and senior software developers aspiring to become architects or looking to build enterprise applications with the .NET Stack. Basic familiarity with C# and .NET is required to get the most out of this book.

Patterns, Principles, and Practices of Domain-Driven Design - Scott Millett 2015-04-20

Methods for managing complex software construction following the practices, principles and patterns of Domain-Driven Design with code examples in C# This book presents the philosophy of Domain-Driven Design (DDD) in a down-to-earth and practical manner for experienced developers building applications for complex domains. A focus is placed on the principles and practices of decomposing a complex problem space as well as the implementation patterns and best practices for shaping a maintainable solution space. You will learn how to build effective domain models through the use of tactical patterns and how to retain their integrity by applying the strategic patterns of DDD. Full end-to-end coding examples demonstrate techniques for integrating a decomposed and distributed solution space while coding best practices and patterns advise you on how to architect applications for maintenance and scale. Offers a thorough introduction to the philosophy of DDD for professional

developers Includes masses of code and examples of concept in action that other books have only covered theoretically Covers the patterns of CQRS, Messaging, REST, Event Sourcing and Event-Driven Architectures Also ideal for Java developers who want to better understand the implementation of DDD

Domain-Driven Design Quickly - Floyd Marinescu 2007-12-01

Domain Driven Design is a vision and approach for dealing with highly complex domains that is based on making the domain itself the main focus of the project, and maintaining a software model that reflects a deep understanding of the domain. This book is a short, quickly-readable summary and introduction to the fundamentals of DDD; it does not introduce any new concepts; it attempts to concisely summarize the essence of what DDD is, drawing mostly Eric Evans' original book, as well other sources since published such as Jimmy Nilsson's Applying Domain Driven Design, and various DDD discussion forums. The main topics covered in the book include: Building Domain Knowledge, The Ubiquitous Language, Model Driven Design, Refactoring Toward Deeper Insight, and Preserving Model Integrity. Also included is an interview with Eric Evans on Domain Driven Design today.

Proceedings of the Second International Scientific Conference "Intelligent Information Technologies for Industry" (IITI'17) - Ajith Abraham 2017-09-30

This volume of Advances in Intelligent Systems and Computing highlights key scientific achievements and innovations in all areas of automation, informatization, computer science, and artificial intelligence. It gathers papers presented at the IITI 2017, the Second International Conference on Intelligent Information Technologies for Industry, which was held in Varna, Bulgaria on September 14-16, 2017. The conference was jointly co-organized by Technical University of Varna (Bulgaria), Technical University of Sofia (Bulgaria), VSB Technical University of Ostrava (Czech Republic) and Rostov State Transport University (Russia). The IITI 2017 brought together international researchers and industrial practitioners interested in the development and implementation of modern technologies for automation, informatization, computer science, artificial intelligence, transport and power electrical engineering. In addition to advancing both fundamental research and innovative applications, the conference is intended to establish a new dissemination platform and an international network of researchers in these fields.

Domain Modeling Made Functional - Scott Wlaschin 2018-01-25

You want increased customer satisfaction, faster development cycles, and less wasted work. Domain-driven design (DDD) combined with functional programming is the innovative combo that will get you there. In this pragmatic, down-to-earth guide, you'll see how applying the core principles of functional programming can result in software designs that model real-world requirements both elegantly and concisely - often more so than an object-oriented approach. Practical examples in the open-source F# functional language, and examples from familiar business domains, show you how to apply these techniques to build software that is business-focused, flexible, and high quality. Domain-driven design is a well-established approach to designing software that ensures that domain experts and developers work together effectively to create high-quality software. This book is the first to combine DDD with techniques from statically typed functional programming. This book is perfect for newcomers to DDD or functional programming - all the techniques you need will be introduced and explained. Model a complex domain accurately using the F# type system, creating compilable code that is also readable documentation--ensuring that the code and design never get out of sync. Encode business rules in the design so that you have "compile-time unit tests," and eliminate many potential bugs by making illegal states unrepresentable. Assemble a series of small, testable functions into a complete use case, and compose these individual scenarios into a large-scale design. Discover why the combination of functional programming and DDD leads naturally to service-oriented and hexagonal architectures. Finally, create a functional domain model that works with traditional databases, NoSQL, and event stores, and safely expose your domain via a website or API. Solve real problems by focusing on real-world requirements for your software. What You Need: The code in this book is designed to be run interactively on Windows, Mac and Linux. You will need a recent version of F# (4.0 or greater), and the appropriate .NET runtime for your platform. Full installation instructions for all platforms at fsharp.org.

Learning Domain-Driven Design - Vlad Khononov 2021-10-08

Building software is harder than ever. As a developer, you not only have to chase ever-changing technological trends but also need to understand the business domains behind the software. This practical book provides

you with a set of core patterns, principles, and practices for analyzing business domains, understanding business strategy, and, most importantly, aligning software design with its business needs. Author Vlad Khononov shows you how these practices lead to robust implementation of business logic and help to future-proof software design and architecture. You'll examine the relationship between domain-driven design (DDD) and other methodologies to ensure you make architectural decisions that meet business requirements. You'll also explore the real-life story of implementing DDD in a startup company. With this book, you'll learn how to: Analyze a company's business domain to learn how the system you're building fits its competitive strategy Use DDD's strategic and tactical tools to architect effective software solutions that address business needs Build a shared understanding of the business domains you encounter Decompose a system into bounded contexts Coordinate the work of multiple teams Gradually introduce DDD to brownfield projects

Implementing Domain-driven Design - Vaughn Vernon 2013

Vaughn Vernon presents concrete and realistic domain-driven design (DDD) techniques through examples from familiar domains, such as a Scrum-based project management application that integrates with a collaboration suite and security provider. Each principle is backed up by realistic Java examples, and all content is tied together by a single case study of a company charged with delivering a set of advanced software systems with DDD.

Design It! - Michael Keeling 2017-10-18

Don't engineer by coincidence-design it like you mean it! Filled with practical techniques, *Design It!* is the perfect introduction to software architecture for programmers who are ready to grow their design skills. Lead your team as a software architect, ask the right stakeholders the right questions, explore design options, and help your team implement a system that promotes the right -ilities. Share your design decisions, facilitate collaborative design workshops that are fast, effective, and fun-and develop more awesome software! With dozens of design methods, examples, and practical know-how, *Design It!* shows you how to become a software architect. Walk through the core concepts every architect must know, discover how to apply them, and learn a variety of skills that will make you a better programmer, leader, and designer. Uncover the big ideas behind software architecture and gain confidence working on projects big and small. Plan, design, implement, and evaluate software architectures and collaborate with your team, stakeholders, and other architects. Identify the right stakeholders and understand their needs, dig for architecturally significant requirements, write amazing quality attribute scenarios, and make confident decisions. Choose technologies based on their architectural impact, facilitate architecture-centric design workshops, and evaluate architectures using lightweight, effective methods. Write lean architecture descriptions people love to read. Run an architecture design studio, implement the architecture you've designed, and grow your team's architectural knowledge. Good design requires good communication. Talk about your software architecture with stakeholders using whiteboards, documents, and code, and apply architecture-focused design methods in your day-to-day practice. Hands-

on exercises, real-world scenarios, and practical team-based decision-making tools will get everyone on board and give you the experience you need to become a confident software architect.

Intelligent Systems - Vladimir M. Koleshko 2012-03-02

This book is dedicated to intelligent systems of broad-spectrum application, such as personal and social biosafety or use of intelligent sensory micro-nanosystems such as "e-nose", "e-tongue" and "e-eye". In addition to that, effective acquiring information, knowledge management and improved knowledge transfer in any media, as well as modeling its information content using meta-and hyper heuristics and semantic reasoning all benefit from the systems covered in this book. Intelligent systems can also be applied in education and generating the intelligent distributed eLearning architecture, as well as in a large number of technical fields, such as industrial design, manufacturing and utilization, e.g., in precision agriculture, cartography, electric power distribution systems, intelligent building management systems, drilling operations etc. Furthermore, decision making using fuzzy logic models, computational recognition of comprehension uncertainty and the joint synthesis of goals and means of intelligent behavior biosystems, as well as diagnostic and human support in the healthcare environment have also been made easier.

Domain-Driven Design Distilled - Vaughn Vernon 2016-06-01

Domain-Driven Design (DDD) software modeling delivers powerful results in practice, not just in theory, which is why developers worldwide are rapidly moving to adopt it. Now, for the first time, there's an accessible guide to the basics of DDD: What it is, what problems it solves, how it works, and how to quickly gain value from it. Concise, readable, and actionable, *Domain-Driven Design Distilled* never buries you in detail—it focuses on what you need to know to get results. Vaughn Vernon, author of the best-selling *Implementing Domain-Driven Design*, draws on his twenty years of experience applying DDD principles to real-world situations. He is uniquely well-qualified to demystify its complexities, illuminate its subtleties, and help you solve the problems you might encounter. Vernon guides you through each core DDD technique for building better software. You'll learn how to segregate domain models using the powerful Bounded Contexts pattern, to develop a Ubiquitous Language within an explicitly bounded context, and to help domain experts and developers work together to create that language. Vernon shows how to use Subdomains to handle legacy systems and to integrate multiple Bounded Contexts to define both team relationships and technical mechanisms. *Domain-Driven Design Distilled* brings DDD to life. Whether you're a developer, architect, analyst, consultant, or customer, Vernon helps you truly understand it so you can benefit from its remarkable power. Coverage includes What DDD can do for you and your organization—and why it's so important The cornerstones of strategic design with DDD: Bounded Contexts and Ubiquitous Language Strategic design with Subdomains Context Mapping: helping teams work together and integrate software more strategically Tactical design with Aggregates and Domain Events Using project acceleration and management tools to establish and maintain team cadence