

## *Microsoft® .NET: Architecting Applications For The Enterprise (PRO Developer)*

Architect and design highly scalable, robust, clean and highly performant applications in .NET Core About This Book Incorporate architectural soft-skills such as DevOps and Agile methodologies to enhance program-level objectives Gain knowledge of architectural approaches on the likes of SOA architecture and microservices to provide traceability and rationale for architectural decisions Explore a variety of practical use cases and code examples to implement the tools and techniques described in the book Who This Book Is For This book is for experienced .NET developers who are aspiring to become architects of enterprise-grade applications, as well as software architects who would like to leverage .NET to create effective blueprints of applications. What You Will Learn Grasp the important aspects and best practices of application lifecycle management Leverage the popular ALM tools, application insights, and their usage to monitor performance, testability, and optimization tools in an enterprise Explore various authentication models such as social media-based authentication, 2FA and OpenID Connect, learn authorization techniques Explore Azure with various solution approaches for Microservices and Serverless architecture along with Docker containers Gain knowledge about the recent market trends and practices and how they can be achieved with .NET Core and Microsoft tools and technologies In Detail If you want to design and develop enterprise applications using .NET Core as the development framework and learn about industry-wide best practices and guidelines, then this book is for you. The book starts with a brief introduction to enterprise architecture, which will help you to understand what enterprise architecture is and what the key components are. It will then teach you about the types of patterns and the principles of software development, and explain the various aspects of distributed computing to keep your applications effective and scalable. These chapters act as a catalyst to start the practical implementation, and design and develop applications using different architectural approaches, such as layered architecture, service oriented architecture, microservices and cloud-specific solutions. Gradually, you will learn about the different approaches and models of the Security framework and explore various authentication models and authorization techniques, such as social media-based authentication and safe storage using app secrets. By the end of the book, you will get to know the concepts and usage of the emerging fields, such as DevOps, BigData, architectural practices, and Artificial Intelligence. Style and approach Filled with examples and use cases,

this guide takes a no-nonsense approach to show you the best tools and techniques required to become a successful software architect.

Get the definitive guide on designing applications on the Microsoft application platform—straight from the Microsoft patterns & practices team. Learn how to choose the most appropriate architecture and the best implementation technologies that the Microsoft application platform offers applications developers. Get critical design recommendations and guidelines organized by application type—from Web, mobile, and rich Internet applications to Office Business Applications. You’ll also get links to additional technical resources that can help with your application development.

Microsoft .NET - Architecting Applications for the Enterprise  
Architecting Applications for the Enterprise  
Pearson Education

bull; bull;The .NET Compact Framework (CF) brings the power of .NET to mobile devices, yet there is very little information on how to use it effectively bull;The number of developers using the .NET CF over the next few years is anticipated to increase greatly bull;Covers related important topics such as SQL Server 2000 Windows CE edition

PROGRAMMING ASP.NET CORE.

CLR via C#

Architecture and Best Practices for Mobile Development

.NET Core in Action

Microsoft .NET - Architecting Applications for the Enterprise

Introducing Machine Learning

***A guide to architecting, designing, and building distributed applications with Windows Communication Foundation Windows Communication Foundation is the .NET technology that is used to build service-oriented applications, exchange messages in various communication scenarios, and run workflows. This guide enables developers to create state-of-the-art applications using this technology. Written by a team of Microsoft MVPs and WCF experts, this book explains how the pieces of WCF 4.0 build on each other to provide a comprehensive framework to support distributed enterprise applications. Experienced developers will learn both theory and practical application using the familiar Wrox approach. .NET developers will learn to design services, create a hosting environment with Dublin, build cloud-based integrations, and much more. Coverage Includes: Design Principles and Patterns Service Contracts and Data Contracts Bindings Clients Instanting Workflow Services***

***Understanding WCF Security WCF Security in Action Federated Authentication in WCF Windows Azure Platform AppFabric Creating a SOA Case Creating the Communication and Integration Case Creating the Business Process Hosting***

***Make the right architectural decisions up front—and improve the quality and reliability of your results. Led by two enterprise programming experts, you'll learn how to apply the patterns and techniques that help control project complexity—and make systems easier to build, support, and upgrade—right from the start. Get pragmatic architectural guidance on how to: Build testability, maintainability, and security into your system early in the design Expose business logic through a service-oriented interface Choose the best pattern for organizing business logic and behavior Review and apply the patterns for separating the UI and presentation logic Delve deep into the patterns and practices for the data access layer Tackle the impedance mismatch between objects and data Minimize development effort and avoid over-engineering—and deliver more robust results Get code samples on the Web.***

***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.***

***Integrate proven performance and scalability techniques throughout the .NET application life cycle—and gain an edge in building better-performing products. This guide presents a robust framework organized by task and role, helping developers, architects, testers, and administrators prioritize and implement the best options at the appropriate time. It offers focused, end-to-end guidance—including processes for modeling performance and techniques for measuring, testing, and fine-tuning your applications. You'll also get tips direct from Microsoft***

*development teams for improving the performance and scalability of managed code; Microsoft ASP.NET, ADO.NET, and SQL Server; Web services; .NET Remoting; XML; and more. The book features a "How To" section that details the steps for a number of specific performance-related tasks, such as adding performance counters and using the common language runtime (CLR) profiler. PATTERNS & PRACTICES guides are reviewed and approved by Microsoft engineering teams, consultants, partners, and customers—delivering accurate, real-world information that's been technically validated and tested.*

*Microsoft Application Architecture Guide*

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

*A Problem-Solution Approach*

*Build apps, websites, and services with ASP.NET Core 6, Blazor, and EF Core 6 using Visual Studio 2022 and Visual Studio Code*

*ASP.NET MVC 4 Recipes*

*Practical Azure SQL Database for Modern Developers*

Here is the expert-level, insider guidance you need on using Azure SQL Database as your back-end data store. This book highlights best practices in everything ranging from full-stack projects to mobile applications to critical, back-end APIs. The book provides instruction on accessing your data from any language and platform. And you learn how to push processing-intensive work into the database engine to be near the data and avoid undue networking traffic. Azure SQL is explained from a developer's point of view, helping you master its feature set and create applications that perform well and delight users. Core to the book is showing you how Azure SQL Database provides relational and post-relational support so that any workload can be managed with easy accessibility from any platform and any language. You will learn about features ranging from lock-free tables to columnstore indexes, and about support for data formats ranging from JSON and key-values to the nodes and edges in the graph database paradigm. Reading this book prepares you to deal with almost all data management challenges, allowing you to create lean and specialized solutions having the elasticity and scalability that are needed in the modern world. What You Will Learn Master Azure SQL Database in your development projects from design to the CI/CD pipeline Access your data from any programming language and platform Combine key-value, JSON, and relational data in the same database Push data-intensive compute work into the database for improved efficiency Delight your customers by detecting and improving poorly

performing queries Enhance performance through features such as columnstore indexes and lock-free tables Build confidence in your mastery of Azure SQL Database's feature set Who This Book Is For Developers of applications and APIs that benefit from cloud database support, developers who wish to master their tools (including Azure SQL Database, and those who want their applications to be known for speedy performance and the elegance of their code Make the jump to distributed application programming using the .NET Framework—and introduce a new level of performance, scalability, and security to your network and enterprise applications. Expert .NET developer Matthew MacDonald shares proven techniques for fully exploiting .NET Remoting, XML Web services, and other .NET technologies and integrating them into your real-world solutions. MacDonald digs into key .NET building blocks and architectural issues, explaining which features and designs will best serve your customized distributed application projects—and when to use them. Case studies with full code examples illustrate these practical techniques in action, as well as demonstrating their benefits and tradeoffs. Learn how to: Cross application boundaries with .NET Remoting, XML Web services, and Message Queuing Create responsive clients and scalable servers with multithreading Model your distributed application with interfaces, facades, and factories Use COM+ services such as object pooling, JIT activation, and transactions Craft a data transfer plan with Microsoft ADO.NET—without concurrency errors Help secure your code end to end—from the transport level to the presentation tier Learn ways to avert—or unclog—performance bottlenecks in your applications Automate deployment using self-updating applications and XML Web services Master stateless programming and other best practices for distributed applications Master machine learning concepts and develop real-world solutions Machine learning offers immense opportunities, and Introducing Machine Learning delivers practical knowledge to make the most of them. Dino and Francesco Esposito start with a quick overview of the foundations of artificial intelligence and the basic steps of any machine learning project. Next, they introduce Microsoft's powerful ML.NET library, including capabilities for data processing, training, and evaluation. They present families of algorithms that can be trained to solve real-life problems, as well as deep learning techniques utilizing neural networks. The authors conclude by introducing valuable runtime services available through the Azure cloud platform and consider the long-term business vision for machine learning. · 14-time Microsoft MVP Dino Esposito and Francesco Esposito help you · Explore what's known about how humans learn and how

intelligent software is built · Discover which problems machine learning can address · Understand the machine learning pipeline: the steps leading to a deliverable model · Use AutoML to automatically select the best pipeline for any problem and dataset · Master ML.NET, implement its pipeline, and apply its tasks and algorithms · Explore the mathematical foundations of machine learning · Make predictions, improve decision-making, and apply probabilistic methods · Group data via classification and clustering · Learn the fundamentals of deep learning, including neural network design · Leverage AI cloud services to build better real-world solutions faster About This Book · For professionals who want to build machine learning applications: both developers who need data science skills and data scientists who need relevant programming skills · Includes examples of machine learning coding scenarios built using the ML.NET library

A guide to ASP.NET 2.0 covers such topics as Master Web pages, managing user profiles, data access, applications, security, and configuration.

Start Here! Build Windows 8 Apps with HTML5 and JavaScript  
Programming Microsoft ASP.NET MVC

Modern Web Development

Building Applications in the Microsoft Cloud

Microsoft .Net: Architecting Applications For The Enterprise

Understanding domains, technologies, and user experience

*Master powerful new approaches to web architecture, design, and user experience This book presents a pragmatic, problem-driven, user-focused approach to planning, designing, and building dynamic web solutions. You'll learn how to gain maximum value from Domain-Driven Design (DDD), define optimal supporting architecture, and succeed with modern UX-first design approaches. The author guides you through choosing and implementing specific technologies and addresses key user-experience topics, including mobile-friendly and responsive design. You'll learn how to gain more value from existing Microsoft technologies such as ASP.NET MVC and SignalR by using them alongside other technologies such as Bootstrap, AJAX, JSON, and JQuery. By using these techniques and understanding the new ASP.NET Core 1.0, you can quickly build advanced web solutions that solve today's problems and deliver an outstanding user experience. Microsoft MVP Dino Esposito shows you how to: Plan websites and web apps to mirror real-world social and business processes Use DDD to dissect and master the complexity of business domains Use UX-Driven Design to reduce costs and give customers what they want Realistically compare server-side and client-side web paradigms Get started with the new ASP.NET Core 1.0 Simplify modern visual webpage construction with Bootstrap Master practical, efficient techniques for running ASP.NET MVC projects Consider new options for implementing persistence and working*

*with data models Understand Responsive Web Design's pros, cons, and tradeoffs Build truly mobile-friendly, mobile-optimized websites About This Book For experienced developers and solution architects who want to plan and develop web solutions more effectively Assumes basic familiarity with the Microsoft web development stack*

*Build your expertise as you move beyond the basics--and delve into the core topics of programming with ASP.NET 2.0. Useful to both experienced developers and those developing new skills, this ultimate reference is packed with expert guidance, hands-on programming instruction, and practical examples to help you advance your mastery of developing applications for the Web.*

*Discover how to: Author rich, visually consistent pages and manage layout with themes and Master pages Create personalized pages that persist user preferences Retrieve, modify, and manage data with Microsoft ADO.NET Configure the HTTP pipeline to serve ASP.NET 2.0 pages Control program flow by tracing and handling exceptions Design caching layers and learn state management techniques to optimize application performance Manage users with membership control, registration, and authentication capabilities Build real-world data access layers using common design patterns Use custom collections with data source controls Learn the internals of grid controls PLUS--Get code samples on the Web*

*Get hands-on guidance designed to help you put the newest .NET Framework component- Windows Identity Foundation, the identity and access logic for all on-premises and cloud development- to work.*

*The ASP.NET MVC 4 Framework is the latest evolution of Microsoft's ASP.NET web platform. It provides a high-productivity programming model that promotes cleaner code architecture, test-driven development, and powerful extensibility, combined with all the benefits of ASP.NET. ASP.NET MVC 4 contains a number of significant advances over previous versions. New mobile and desktop templates (employing adaptive rendering) are included together with support for jQuery Mobile for the first time. New display modes allow your application to select views based on the browser that's making the request while Code Generation Recipes for Visual Studio help you auto-generate project-specific code for a wide variety of situations including NuGet support. In this fourth edition, the core model-view-controller (MVC) architectural concepts are not simply explained or discussed in isolation, but are demonstrated in action. You'll work through an extended tutorial to create a working e-commerce web application that combines ASP.NET MVC with the latest C# language features and unit-testing best practices. By gaining this invaluable, practical experience, you'll discover MVC's strengths and weaknesses for yourself—and put your best-learned theory into practice. The book's authors, Steve Sanderson and Adam Freeman, have both watched the growth of ASP.NET MVC since its first release. Steve is a well-known blogger on the MVC Framework and a member of the Microsoft Web Platform and Tools team. Adam started designing and building web applications 15 years ago and has been responsible for some of the world's largest and most ambitious projects. You can be sure you are in safe hands.*

*A Craftsman's Guide to Software Structure and Design*

*Pro ASP.NET MVC 4*

*Integrating XML Web Services and .NET Remoting*

*C# 10 and .NET 6 – Modern Cross-Platform Development - Sixth Edition*

*Software Architecture with C# 9 and .NET 5*

*Professional ASP.NET Design Patterns*

Become a professional .NET developer by learning expert techniques for building enterprise-grade applications. Key Features: Explore the advanced features of C# and .NET 5 to enhance your code and productivity. Follow clear and easy instructions for building an end-to-end enterprise application. Learn how to build scalable web applications and host them on the cloud. Book 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 learn: Design enterprise apps by making the most of the latest features of .NET 5. Discover different layers of an app, such as the data layer, API layer, and web layer. Explore end-to-end architecture, implement an enterprise web app using .NET and C# 9, and deploy the app on Azure. Focus on the core concepts of web application development such as dependency injection, caching, logging, configuration, and authentication, and implement them in .NET 5. Integrate the new .NET 5 health and performance check APIs with your app. Understand how .NET 5 works and contribute to the .NET 5 platform. Who 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.

Your guide to planning and executing a complete mobile web strategy. Revisit your approach to the mobile web—and deliver effective solutions that reach customers and clients on a variety of mobile devices. In this practical guide, web development luminary Dino Esposito shows you how to develop a solid mobile strategy for

the enterprise, starting with an effective mobile website. You'll receive essential architectural and implementation guidance, as well as mobile-specific design patterns for building cross-platform and native applications. Discover how to: Architect a website accessible from many different mobile devices Implement design patterns specific to mobile app development Examine tools that enable you to write one codebase for many platforms Use technologies for building Windows Phone, iPhone, and Android apps Develop cross-platform app features, such as localization and offline behavior

Building upon the success of best-sellers *The Clean Coder* and *Clean Code*, legendary software craftsman Robert C. "Uncle Bob" Martin shows how to bring greater professionalism and discipline to application architecture and design. As with his other books, Martin's *Clean Architecture* doesn't merely present multiple choices and options, and say "use your best judgment": it tells you what choices to make, and why those choices are critical to your success. Martin offers direct, is essential reading for every software architect, systems analyst, system designer, and software manager-- and for any programmer who aspires to these roles or is impacted by their work.

Guide to designing and developing cloud native applications in Azure Key Featuresa- Basics of Cloud Native Applications a- Designing Microservicesa- Different cloud native options for developing Cloud Native Applications in Azurea- BOTs, Web Apps, Mobile Apps, Logic Apps, Service Bus, Azure Functionsa- Azure IOT Applicationsa- Azure Machine Learning Basicsa- Enterprise Digital JourneysDescriptionThe mainstreaming of the cloud-native architecture as an enterprise discipline is well underway. According to the Forbes report, in January 2018, 83% of enterprise workloads will be in the cloud by 2020, 41% of enterprise workloads will run on public cloud platforms while another 22% will be running on hybrid cloud platforms. Customers are embarking on enterprise digital transformation journeys. Adopting cloud, cloud-native architectures, and microservices is an important aspect of the journey. This book starts with a brief introduction to the basics of cloud-native applications and cloud-native application patterns. It covers cloud-native options available in Azure. The objective of the book is to provide practical guidelines to an architect/designer/consultant/developer who is part of the Cloud application definition team. The book articulates a methodology that the implementation team needs to follow in a systematic manner and adapt them to fulfill the requirements for enabling the cloud-native application. It emphasizes on the interpersonal skills and techniques for organizing and directing the cloud-native definition, leadership buy-in, and leading the transition from planning to implementation. It also highlights steps to be followed and the patterns for developing cloud-native applications, cloud-native options available in Azure, developing BOT, and microservices based on Azure. It also covers how to develop simple IoT applications, Machine learning-based applications, and the serverless architecture using Azure with a practical and pragmatic approach. This book embraces a structured approach around the following key themes that represent the typical phases an enterprise traverses during its

cloud-native application journey. What will you learn This book aims to: a- Demonstrate the importance of cloud-native applications in elevating the effectiveness of organizational transformation programs and digital enterprise journeys using MS Azure. a- Disseminate current advancements and thought leadership in the area of cloud-native architecture in the context of digital enterprises. a- Provide initiatives with evidence-based, credible, field-tested and practical guidance in designing their respective architectures. Who this book is for The book is intended for anyone looking for a career in Cloud technology, especially all aspiring Cloud Architects who want to learn cloud-native architectures, Microservices, IoT, BOT and Microsoft Azure platform. Table of Contents 1. Basics of Cloud Native Applications 2. Cloud Native Application Patterns 3. Cloud Native Options available in Azure - BOTs, Logic Apps, Service Bus, Azure Microservices, ML services 4. Developing a Simple BOT using .NET Core 5. Developing Cloud Native applications leveraging Microservices and Azure API Gateway 6. Developing Integration capabilities using serverless architecture 7. Developing a simple IoT application 8. Developing a simple ML based application 9. Different enterprise use cases which enable digital transformation using Cloud Native Applications

Architecting Microsoft .NET Solutions for the Enterprise  
Exam Ref 70-534 Architecting Microsoft Azure Solutions  
Improving .NET Application Performance and Scalability  
Microsoft .NET Distributed Applications  
Essential Windows Communication Foundation (WCF)  
Microsoft SharePoint 2013 App Development

**Summary Functional Programming in C# teaches you to apply functional thinking to real-world problems using the C# language. The book, with its many practical examples, is written for proficient C# programmers with no prior FP experience. It will give you an awesome new perspective. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Functional programming changes the way you think about code. For C# developers, FP techniques can greatly improve state management, concurrency, event handling, and long-term code maintenance. And C# offers the flexibility that allows you to benefit fully from the application of functional techniques. This book gives you the awesome power of a new perspective. About the Book Functional Programming in C# teaches you to apply functional thinking to real-world problems using the C# language. You'll start by learning the principles of functional programming and the language features that allow you to program functionally. As you explore the many practical examples, you'll learn the power of function composition, data flow programming, immutable data structures, and monadic composition with LINQ. What's Inside Write readable,**

team-friendly code Master async and data streams Radically improve error handling Event sourcing and other FP patterns About the Reader Written for proficient C# programmers with no prior FP experience. About the Author Enrico Buonanno studied computer science at Columbia University and has 15 years of experience as a developer, architect, and trainer. Table of Contents PART 1 - CORE CONCEPTS Introducing functional programming Why function purity matters Designing function signatures and types Patterns in functional programming Designing programs with function composition PART 2 - BECOMING FUNCTIONAL Functional error handling Structuring an application with functions Working effectively with multi-argument functions Thinking about data functionally Event sourcing: a functional approach to persistence PART 3 - ADVANCED TECHNIQUES Lazy computations, continuations, and the beauty of monadic composition Stateful programs and stateful computations Working with asynchronous computations Data streams and the Reactive Extensions An introduction to message-passing concurrency

The book covers the best practices and approaches for software architects to follow when developing .NET and C# solutions, along with the most up to date cloud environments and tools to enable effective app development, delivery, and deployment.

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 helps build 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

“ Whether this is the first time or the fifty-first time you ’ re using WCF, you ’ ll learn something new by reading this book. ” --Nicholas Allen, Program Manager, Web Services, Microsoft Windows Communication Foundation (WCF) is the easiest way to produce and consume Web services on the Microsoft platform. With .NET 3.5, WCF has been extensively revamped--and Visual Studio 2008 gives developers powerful new tools for utilizing it. Essential Windows Communication Foundation shows developers exactly how to make the most of WCF with .NET 3.5 and Visual Studio 2008. Drawing on extensive experience working with early adopters, three Microsoft insiders systematically address the topics developers ask about WCF. The authors

approach each subject with practical advice and present best practices, tips, and tricks for solving problems. Throughout, you ' ll find detailed explanations, solutions for the “ pain points ” of WCF development, and an extensive collection of reusable code examples. Coverage includes Using WCF contracts to define complex structures and interfaces Understanding WCF ' s channel stacks and channel model architecture Configuring the WCF communication stack to use only the protocols you need Using standard and custom service behaviors to manage concurrency, instances, transactions, and more Serializing data from .NET types to XML Infosets and representing Infosets “ on the wire ” Hosting WCF services via IIS, managed .NET applications, and Windows Activation Services WCF security, in depth: authentication; transport and message-level security; and Internet and intranet scenarios Improving reliability: exception handling, diagnostics, and more Workflow services: new integration points between WCF 3.5 and Windows Workflow Foundation Building client-to-client, peer network-based applications Utilizing WCF for non-SOAP Web services: AJAX and JSON examples and .NET 3.5 hosting classes Microsoft ' s Steve Resnick, Richard Crane, and Chris Bowen are technology experts at the Microsoft Technology Center in Boston. They specialize in helping customers improve their technical agility by applying WCF and related technologies. Resnick has specialized in Internet technologies and distributed computing at Microsoft since 1995. He is a frequent speaker at Microsoft events and is now technology director for the U.S. Microsoft Technology Centers. Crane has more than 15 years of experience in senior software development roles. He specializes in large-scale Web sites, distributed computing, transactional systems, and performance analysis. Bowen has been an architect and developer for more than 15 years at companies such as Monster.com and Staples and is co-author of Professional Visual Studio 2005 Team System. Foreword xxv Preface xxvii Chapter 1: Basics 1 Chapter 2: Contracts 33 Chapter 3: Channels 91 Chapter 4: Bindings 111 Chapter 5: Behaviors 181 Chapter 6: Serialization and Encoding 241 Chapter 7: Hosting 287 Chapter 8: Security 315 Chapter 9: Diagnostics 375 Chapter 10: Exception Handling 403 Chapter 11: Workflow Services 423 Chapter 12: Peer Networking 459 Chapter 13: Programmable Web 503 Appendix: Advanced Topics 537 Index 553

Architecting Mobile Solutions for the Enterprise

Programming Microsoft ASP.NET 2.0 Core Reference

Architecting software solutions using microservices, DevOps, and design patterns for Azure, 2nd Edition

Exam Prep for Microsoft .NET - Architecting Applications ...

Developing Cloud Native Applications in Azure using .NET Core

## Clean Architecture

**A comprehensive guide for beginners to learn the key concepts, real-world applications, and latest features of C# 10 and .NET 6 with hands-on exercises using Visual Studio 2022 and Visual Studio Code**

**Key Features** Explore the newest additions to C# 10, the .NET 6 class library, and Entity Framework Core 6

**Create professional websites and services with ASP.NET Core 6 and Blazor** Build cross-platform apps for Windows, macOS, Linux, iOS, and Android

**Book Description** This latest edition is extensively revised to accommodate all the latest features that come with C# 10 and .NET 6. You will learn object-oriented programming, writing, testing, and debugging functions, implementing interfaces, and inheriting classes. The book covers the .NET APIs for performing tasks like managing and querying data, monitoring and improving performance, and working with the filesystem, async streams, serialization, and encryption. It provides examples of cross-platform apps you can build and deploy, such as websites and services using ASP.NET Core. The best application for learning the C# language constructs and many of the .NET libraries does not distract with unnecessary application code. Hence, the C# and .NET topics covered in Chapters 1 to 12 feature console applications. In Chapters 13 to 17, having mastered the basics, you will build practical applications and services using ASP.NET Core, the Model-View-Controller (MVC) pattern, and Blazor. There are also two new online chapters on using .NET MAUI to build cross-platform apps and building services using a variety of technologies, including Web API, OData, gRPC, GraphQL, SignalR, and Azure Functions. What you will learn

**Build rich web experiences using Blazor, Razor Pages, the Model-View-Controller (MVC) pattern, and other features of ASP.NET Core**

**Build your own types with object-oriented programming** Write, test, and debug functions

**Query and manipulate data using LINQ** Integrate and update databases in your apps using Entity Framework Core, Microsoft SQL Server, and SQLite

**Build and consume powerful services using the latest technologies, including gRPC and GraphQL**

**Build cross-platform apps using .NET MAUI and XAML**

**Who this book is for** This book is for beginners to C# and .NET or programmers who have worked with C# in the past but feel left behind by the changes in the past few years. This book doesn't expect you to have any C# or .NET experience; however, you should have a general understanding of programming. Students and professionals with a science, technology, engineering, or mathematics (STEM) background can benefit from this book.

**Your guide to designing apps that extend the capabilities of your SharePoint site. Take advantage of the most important new concept in Microsoft SharePoint 2013--the app. Led by two SharePoint**

**experts, you'll learn development techniques such as building app lists, creating event handlers, and the major classes in the object model that provide access to content stored in SharePoint. Get expert guidance on how to:** Best design an app Develop a SharePoint-hosted app Develop a developer-hosted app Create and use lists Support notifications Program a client-side app with JavaScript Establish user security and SharePoint application security Get code samples on the Web.

**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**

**Summary .NET Core in Action shows .NET developers how to build professional software applications with .NET Core. Learn how to convert existing .NET code to work on multiple platforms or how to start new projects with knowledge of the tools and capabilities of .NET Core. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology .NET Core is an open source framework that lets you write and run .NET applications on Linux and Mac, without giving up on Windows. Built for everything from lightweight web apps to industrial-strength distributed systems, it's perfect for deploying .NET servers to any cloud platform, including AWS and GCP. About the Book .NET Core in Action introduces you to cross-platform development with .NET Core. This hands-on guide concentrates on new Core features as you walk through familiar tasks like testing, logging, data access, and networking. As you go, you'll explore modern architectures like microservices and cloud data storage, along with practical matters like performance profiling, localization, and signing assemblies. What's Inside Choosing the right tools**

**Testing, profiling, and debugging Interacting with web services Converting existing projects to .NET Core Creating and using NuGet packages About the Reader All examples are in C#. About the Author Dustin Metzgar is a seasoned developer and architect involved in numerous .NET Core projects. Dustin works for Microsoft. Table of Contents Why .NET Core? Building your first .NET Core applications How to build with .NET Core Unit testing with xUnit Working with relational databases Simplify data access with object-relational mappers Creating a microservice Debugging Performance and profiling Building world-ready applications Multiple frameworks and runtimes Preparing for release appendix A - Frameworks and runtimes appendix B - xUnit command-line options appendix C - What's in the .NET Standard Library? appendix D - NuGet cache locations Enterprise Application Architecture with .NET Core Programming Windows Identity Foundation Enhance your C# and .NET skills by mastering the process of developing professional-grade web applications Architecting Web Applications Fowler**

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

Provides information on designing and building effective enterprise solutions, covering such topics as UML, the business layer, service layer, and the data access layer.

The practice of enterprise application development has benefited from the emergence of many new enabling technologies. Many 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 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 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 second 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.

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

Delve inside the Windows Runtime - and learn best ways to design and build Windows Store apps. Guided by Jeffrey Richter, a recognized expert in Windows and .NET programming, along with principal Windows consultant Maarten van de Bospoort, you will master essential concepts. And you'll gain practical insights and tips for how to architect, design, optimize, and debug your apps. In this book, you will: Learn how to consume Windows Runtime APIs from C# Understand the principles of architecting Windows Store apps See how to build, deploy, and secure app packages Understand how apps are activated and the process model controlling their execution Study the rich features available when working with files and folders Explore how to transfer, compress, and encrypt data via streams Design apps that give the illusion of running using live tiles, background transfers, and background tasks Share data between apps using the clipboard and the Share charm Get advice for monetizing your apps through the Windows Store About the Book Requires working knowledge of Microsoft .NET Framework, C#, and the Visual Studio IDE Targeted to programmers building Windows Store apps Some chapters also useful to those building desktop apps Technologies Covered Windows 8.1 Microsoft Visual Studio 2013

Dig deep and master the intricacies of the common language runtime, C#, and .NET development. Led by programming expert Jeffrey Richter, a longtime consultant to the Microsoft .NET team - you'll gain pragmatic insights for building robust, reliable, and reusable apps and components. Fully updated for .NET Framework 4.5 and Visual Studio 2012 Delivers a thorough grounding in the .NET Framework architecture, runtime environment, and other key topics, including asynchronous programming and the new Windows Runtime Provides extensive code samples in Visual C# 2012 Features authoritative, pragmatic guidance on difficult development concepts such as generics and threading

Professional WCF 4

Windows Runtime via C#

Microsoft ASP.NET and AJAX

Introducing Microsoft ASP.NET 2.0

Architecting Applications for the Enterprise

*Rethink the way you plan, design, and build Web applications—with expert guidance from Web development luminary Dino Esposito. Whether giving legacy sites a much-needed tune-up—or architecting rich Internet applications from the ground up—you'll learn pragmatic approaches to AJAX development that you can employ today. Discover how to: Delve into the mechanics and design goals of partial rendering—such as*

improving page-refresh speed Use AJAX-enabled server controls to bring desktop-like functionality to Web solutions Apply design patterns to common Web development issues, including client-side data binding Manipulate JavaScript more easily using the jQuery and Microsoft AJAX libraries Examine the interoperability and security models in Microsoft Silverlight Weigh the tradeoffs when architecting Web applications for richness (Silverlight) vs. reach (AJAX)—and deliver the right solution for your audience

ASP.NET MVC 4 Recipes is a practical guide for developers creating modern web applications, cutting through the complexities of ASP.NET, jQuery, Knockout.js and HTML 5 to provide straightforward solutions to common web development problems using proven methods based on best practices. The problem-solution approach gets you in, out, and back to work quickly while deepening your understanding of the underlying platform and how to develop with it. Author John Ciliberti guides you through the framework and development tools, presenting typical challenges, along with code solutions and clear, concise explanations, to accelerate application development. Inside you will find recipes dealing with streamlined syntax, full control over HTML, a simple API for creating RESTful web services, writing support for test driven development, and more. Solve problems immediately by pasting in code from the recipes, or put multiple recipe solutions together to overcome challenging development obstacles. Dive head first into ASP.NET MVC web development with ASP.NET MVC 4 Recipes.

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Prepare for Microsoft Exam 70-534—and help demonstrate your real-world mastery of Microsoft Azure solution design and architecture. Designed for experienced IT pros ready to advance their status, Exam Ref focuses on the critical-thinking and decision-making acumen needed for success at the Microsoft Specialist level. Focus on the expertise measured by these objectives: Describe Microsoft Azure infrastructure and networking Help secure resources Design an application storage and data access strategy Design an advanced application Design websites Design a management, monitoring, and business continuity strategy This Microsoft Exam Ref: Organizes its coverage by exam objectives Features strategic, what-if scenarios to challenge you Assumes you have experience designing Microsoft Azure cloud or hybrid solutions and supporting application life cycle management

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Windows Communication Foundation with .NET 4

Fully updated for ASP.NET MVC 3. Delve into the features, principles, and pillars of the ASP.NET MVC framework—deftly guided by web development luminary Dino Esposito. ASP.NET MVC forces developers to think in terms of distinct components—Model, View, Controller—that make it easier to manage application complexity, while allowing strict control over the markup. Plunge into the framework’s internal mechanics and gain perspectives on how to use this programming model versus Web Forms, and begin building your own MVC-based applications quickly.

Ready to learn Windows 8 programming? Start Here! Learn the fundamentals of Windows 8 programming—and begin creating apps for desktops, laptops, tablets, and other devices. If you have previous experience with HTML5 and JavaScript—simply start here! This book introduces must-know concepts and getting-started techniques through easy-to-follow explanations, examples, and exercises. Here’s where you start learning Windows 8 app development

- Build on your knowledge of HTML5, CSS, and JavaScript
- Create photo and media galleries with built-in HTML widgets
- Interact with the system through live tiles, contracts, and view state detection
- Store and access data on the local device and via the Internet
- Access webcam, GPS, and other sensors embedded in the device
- Create your first programs and publish them to the Windows Store