

Data Model Patterns Pearsoncmg

Prepare for Microsoft Exam 70-778—and help demonstrate your real-world mastery of Power BI data analysis and visualization. Designed for experienced BI professionals and data analysts ready to advance their status, Exam Ref focuses on the critical thinking and decision-making acumen needed for success at the MCSA level. Focus on the expertise measured by these objectives: Consume and transform data by using Power BI Desktop Model and visualize data Configure dashboards, reports, and apps in the Power BI Service This Microsoft Exam Ref: Organizes its coverage by exam objectives Features strategic, what-if scenarios to challenge you Assumes you have experience consuming and transforming data, modeling and visualizing data, and configuring dashboards using Excel and Power BI

Normal 0 false false false MicrosoftInternetExplorer4 The Definitive Guide to Enterprise-Level Analytics Strategy, Technology, Implementation, and Management Organizations are capturing exponentially larger amounts of data than ever, and now they have to figure out what to do with it. Using analytics, you can harness this data, discover hidden patterns, and use this knowledge to act meaningfully for competitive advantage.

Suddenly, you can go beyond understanding “how, when, and where” events have occurred, to understand why – and use this knowledge to reshape the future. Now, analytics pioneer Tom Davenport and the world-renowned experts at the International

Institute for Analytics (IIA) have brought together the latest techniques, best practices, and research on analytics in a single primer for maximizing the value of enterprise data. Enterprise Analytics is today's definitive guide to analytics strategy, planning, organization, implementation, and usage. It covers everything from building better analytics organizations to gathering data; implementing predictive analytics to linking analysis with organizational performance. The authors offer specific insights for optimizing supply chains, online services, marketing, fraud detection, and many other business functions. They support their powerful techniques with many real-world examples, including chapter-length case studies from healthcare, retail, and financial services. Enterprise Analytics will be an invaluable resource for every business and technical professional who wants to make better data-driven decisions: operations, supply chain, and product managers; product, financial, and marketing analysts; CIOs and other IT leaders; data, web, and data warehouse specialists, and many others. Following the familiar "Design Patterns" format, expert cloud developer Chris Moyer introduces proven patterns for cloud platforms from Amazon, Google, and other providers. Moyer demonstrates these patterns at work through extensive example code and case study applications for Amazon Web Services (AWS). As you increasingly move to the cloud, you'll constantly encounter the challenges this book solves. You'll rely on it for years—whenever you need a cloud solution you can trust.

Publisher Fact Sheet A concise, hands-on approach to managing & improving the

critical requirements process in software development.

This comprehensive and authoritative guide will teach you the DAX language for business intelligence, data modeling, and analytics. Leading Microsoft BI consultants Marco Russo and Alberto Ferrari help you master everything from table functions through advanced code and model optimization. You'll learn exactly what happens under the hood when you run a DAX expression, how DAX behaves differently from other languages, and how to use this knowledge to write fast, robust code. If you want to leverage all of DAX's remarkable power and flexibility, this no-compromise "deep dive" is exactly what you need. Perform powerful data analysis with DAX for Microsoft SQL Server Analysis Services, Excel, and Power BI Master core DAX concepts, including calculated columns, measures, and error handling Understand evaluation contexts and the CALCULATE and CALCULATETABLE functions Perform time-based calculations: YTD, MTD, previous year, working days, and more Work with expanded tables, complex functions, and elaborate DAX expressions Perform calculations over hierarchies, including parent/child hierarchies Use DAX to express diverse and unusual relationships Measure DAX query performance with SQL Server Profiler and DAX Studio

Logical Data Modeling offers business managers, analysts, and students a clear, basic systematic guide to defining business information structures in relational database terms. The approach, based on Clive Finkelstein's business-side Information

Engineering, is hands-on, practical, and explicit in terminology and reasoning. Filled with illustrations, examples, and exercises, Logical Data Modeling makes its subject accessible to readers with only a limited knowledge of database systems. The book covers all essential topics thoroughly but succinctly: entities, associations, attributes, keys and inheritance, valid and invalid structures, and normalization. It also emphasizes communication with business and database specialists, documentation, and the use of Visible Systems' Visible Advantage enterprise modeling tool. The application of design patterns to logical data modeling provides practitioners with a practical tool for fast development. At the end, a chapter covers the issues that arise when the logical data model is translated into the design for a physical database.

This classic book is the definitive real-world style guide for better Smalltalk programming. This author presents a set of patterns that organize all the informal experience successful Smalltalk programmers have learned the hard way. When programmers understand these patterns, they can write much more effective code. The concept of Smalltalk patterns is introduced, and the book explains why they work. Next, the book introduces proven patterns for working with methods, messages, state, collections, classes and formatting. Finally, the book walks through a development example utilizing patterns. For programmers, project managers, teachers and students -- both new and experienced. This book presents a set of patterns that organize all the informal experience of successful Smalltalk programmers. This book will help you

understand these patterns, and empower you to write more effective code.

The Most Complete, Practical, and Actionable Guide to Microservices Going beyond mere theory and marketing hype, Eberhard Wolff presents all the knowledge you need to capture the full benefits of this emerging paradigm. He illuminates microservice concepts, architectures, and scenarios from a technology-neutral standpoint, and demonstrates how to implement them with today's leading technologies such as Docker, Java, Spring Boot, the Netflix stack, and Spring Cloud. The author fully explains the benefits and tradeoffs associated with microservices, and guides you through the entire project lifecycle: development, testing, deployment, operations, and more. You'll find best practices for architecting microservice-based systems, individual microservices, and nanoservices, each illuminated with pragmatic examples. The author supplements opinions based on his experience with concise essays from other experts, enriching your understanding and illuminating areas where experts disagree. Readers are challenged to experiment on their own the concepts explained in the book to gain hands-on experience. Discover what microservices are, and how they differ from other forms of modularization Modernize legacy applications and efficiently build new systems Drive more value from continuous delivery with microservices Learn how microservices differ from SOA Optimize the microservices project lifecycle Plan, visualize, manage, and evolve architecture Integrate and communicate among microservices Apply advanced architectural techniques, including CQRS and Event

Sourcing Maximize resilience and stability Operate and monitor microservices in production Build a full implementation with Docker, Java, Spring Boot, the Netflix stack, and Spring Cloud Explore nanoservices with Amazon Lambda, OSGi, Java EE, Vert.x, Erlang, and Seneca Understand microservices' impact on teams, technical leaders, product owners, and stakeholders Managers will discover better ways to support microservices, and learn how adopting the method affects the entire organization. Developers will master the technical skills and concepts they need to be effective. Architects will gain a deep understanding of key issues in creating or migrating toward microservices, and exactly what it will take to transform their plans into reality. Examines how teachers can make careful analyses of students' work to uncover error patterns and gain knowledge of a student's strengths on which to base future instruction.

Master C++ "The Qt Way" with Modern Design Patterns and Efficient Reuse This fully updated, classroom-tested book teaches C++ "The Qt Way," emphasizing design patterns and efficient reuse. Readers will master both the C++ language and Qt libraries, as they learn to develop maintainable software with well-defined code layers and simple, reusable classes and functions. Every chapter of this edition has been improved with new content, better organization, or both. Readers will find extensively revised coverage of QObjects, Reflection, Widgets, Main Windows, Models and Views, Databases, Multi-Threaded Programming, and Reflection. This edition introduces the powerful new Qt Creator IDE; presents new multimedia APIs; and offers extended coverage of Qt Designer and C++ Integration. It has been restructured to help readers start writing software immediately and write robust, effective

software sooner. The authors introduce several new design patterns, add many quiz questions and labs, and present more efficient solutions relying on new Qt features and best practices. They also provide an up-to-date C++ reference section and a complete application case study. Master C++ keywords, literals, identifiers, declarations, types, and type conversions. Understand classes and objects, organize them, and describe their interrelationships. Learn consistent programming style and naming rules. Use lists, functions, and other essential techniques. Define inheritance relationships to share code and promote reuse. Learn how code libraries are designed, built, and reused. Work with QObject, the base class underlying much of Qt. Build graphical user interfaces with Qt widgets. Use templates to write generic functions and classes. Master advanced reflective programming techniques. Use the Model-View framework to cleanly separate data and GUI classes. Validate input using regular expressions and other techniques. Parse XML data with SAX, DOM, and QDomStreamReader. Master today's most valuable creational and structural design patterns. Create, use, monitor, and debug processes and threads. Access databases with Qt's SQL classes. Manage memory reliably and efficiently. Understand how to effectively manage QThreads and use QtConcurrent algorithms. [Click here to obtain supplementary materials for this book.](#)

Learn proven, real-world techniques for specifying software requirements with this practical reference. It details 30 requirement "patterns" offering realistic examples for situation-specific guidance for building effective software requirements. Each pattern explains what a requirement needs to convey, offers potential questions to ask, points out potential pitfalls, suggests extra requirements, and other advice. This book also provides guidance on how to write other kinds of information that belong in a requirements specification, such as

assumptions, a glossary, and document history and references, and how to structure a requirements specification. A disturbing proportion of computer systems are judged to be inadequate; many are not even delivered; more are late or over budget. Studies consistently show one of the single biggest causes is poorly defined requirements: not properly defining what a system is for and what it's supposed to do. Even a modest contribution to improving requirements offers the prospect of saving businesses part of a large sum of wasted investment. This guide emphasizes this important requirement need—determining what a software system needs to do before spending time on development. Expertly written, this book details solutions that have worked in the past, with guidance for modifying patterns to fit individual needs—giving developers the valuable advice they need for building effective software requirements

Get the end-to-end instruction you need to design, develop, and deploy more effective data integration, reporting, and analysis solutions using SQL Server 2008—whether you're new to business intelligence (BI) programming or a seasoned pro. With real-world examples and insights from an expert team, you'll master the concepts, tools, and techniques for building solutions that deliver intelligence—and business value—exactly where users want it. Discover how to: Manage the development life cycle and build a BI team Dig into SQL Server Analysis Services, Integration Services, and Reporting Services Navigate the Business Intelligence Development Studio (BIDS) Write queries that rank, sort, and drill down on sales data Develop extract, transform, and load (ETL) solutions Add a source code control system Help secure packages for deployment via encryption and credentials Use MDX and DMX Query Designers to build reports based on OLAP cubes and data mining models Create and implement custom

objects using .NET code View reports in Microsoft Office Excel and Office SharePoint Serverook

This is the digital version of the printed book (Copyright © 1996). Learning the basics of a modeling technique is not the same as learning how to use and apply it. To develop a data model of an organization is to gain insights into its nature that do not come easily. Indeed, analysts are often expected to understand subtleties of an organization's structure that may have evaded people who have worked there for years. Here's help for those analysts who have learned the basics of data modeling (or "entity/relationship modeling") but who need to obtain the insights required to prepare a good model of a real business. Structures common to many types of business are analyzed in areas such as accounting, material requirements planning, process manufacturing, contracts, laboratories, and documents. In each chapter, high-level data models are drawn from the following business areas: The Enterprise and Its World The Things of the Enterprise Procedures and Activities Contracts Accounting The Laboratory Material Requirements Planning Process Manufacturing Documents Lower-Level Conventions Banish math anxiety and give students of all ages a clear roadmap to success Mathematical Mindsets provides practical strategies and activities to help teachers and parents show all children, even those who are convinced that they are bad at math, that they can enjoy and succeed in math. Jo Boaler—Stanford researcher, professor of math education, and expert on math learning—has studied why students don't like math and often fail in math classes. She's followed thousands of students through middle and high schools to study how they learn and to find the most effective ways to unleash the math potential in all students. There is a clear gap between what research has shown to work in teaching math and what happens in schools and

at home. This book bridges that gap by turning research findings into practical activities and advice. Boaler translates Carol Dweck's concept of 'mindset' into math teaching and parenting strategies, showing how students can go from self-doubt to strong self-confidence, which is so important to math learning. Boaler reveals the steps that must be taken by schools and parents to improve math education for all. Mathematical Mindsets: Explains how the brain processes mathematics learning Reveals how to turn mistakes and struggles into valuable learning experiences Provides examples of rich mathematical activities to replace rote learning Explains ways to give students a positive math mindset Gives examples of how assessment and grading policies need to change to support real understanding Scores of students hate and fear math, so they end up leaving school without an understanding of basic mathematical concepts. Their evasion and departure hinders math-related pathways and STEM career opportunities. Research has shown very clear methods to change this phenomena, but the information has been confined to research journals—until now. Mathematical Mindsets provides a proven, practical roadmap to mathematics success for any student at any age.

The goal of this book is to introduce a reader to a new philosophy of teaching and learning physics - Investigative Science Learning Environment, or ISLE (pronounced as a small island). ISLE is an example of an "intentional" approach to curriculum design and learning activities (MacMillan and Garrison 1988 A Logical Theory of Teaching: Erotetics and Intentionality). Intentionality means that the process through which the learning occurs is as crucial for learning as the final outcome or learned content. In ISLE, the process through which students learn mirrors the practice of physics.

"Capitalism at the Crossroads is built on strong theoretical underpinnings and illustrated with

many practical examples. The author offers a pioneering roadmap to responsible macroeconomics and corporate growth." -Clayton Christensen, Professor of Business Administration, Harvard Business School and author of *The Innovator's Dilemma* "I hope this book will be able to influence the thought processes of corporations and motivate them to adapt to forthcoming business realities for the sake of their own long-term existence. Besides business leaders, this is a thought-provoking book for the readers who are looking for solutions to capitalism's problems." -Muhammad Yunus, Founder and Managing Director, Grameen Bank, Bangladesh and 2007 Nobel Peace Prize recipient "*Capitalism at the Crossroads* is a practical manifesto for business in the twenty-first century. Professor Stuart L. Hart provides a succinct framework for managers to harmonize concerns for the planet with wealth creation and unambiguously demonstrates the connection between the two. This book represents a turning point in the debate about the emerging role and responsibility of business in society." -C.K. Prahalad, Ross School of Business, University of Michigan, co-author of *Competing for the Future* and author of *The Fortune at the Bottom of the Pyramid* "Stuart Hart was there at the beginning. Years ago when the term 'sustainability' had not yet reached the business schools, Stuart Hart stood as a beacon glowing in the umbrage. It is clear commerce is the engine of change, design the first signal of human intention, and global capitalism is at the crossroads. Stuart Hart is there again; this time lighting up the intersection." -William McDonough, University of Virginia, co-author of *Cradle to Cradle* "Professor Hart is on the leading edge of making sustainability an understandable and useful framework for building business value. This book brings together much of his insights developed over the past decade. Through case studies and practical advice, he argues powerfully that unlimited

opportunities for profitable business growth will flow to those companies that bring innovative technology and solutions to bear on some of the world's most intractable social and environmental problems." -Chad Holliday, Chairman and CEO, DuPont "Capitalism at the Crossroads clearly reveals the essence of what sustainability means to today's business world. Hart's analysis that businesses must increasingly adopt a business framework based on building sustainable value speaks to the entire sustainability movement's relevance. Sustainability is more than today's competitive edge; it is tomorrow's model for success." -Don Pether, President and CEO, Dofasco Inc. "Stuart Hart has written a book full of big insights painted with bold strokes. He may make you mad. He will certainly make you think." -Jonathan Lash, President, The World Resources Institute "A must-read for every CEO—and every MBA." -John Elkington, Chairman, SustainAbility "This book provides us with a vast array of innovative and practical ideas to accelerate the transformation to global sustainability and the role businesses and corporations will have to play therein. Stuart Hart manages to contribute in an essential way to the growing intellectual capital that addresses this topic. But, beyond that, the book will also prove to be a pioneer in the literature on corporate strategy by adding this new dimension to the current thinking." -Jan Oosterveld, Professor, IESE Business School, Barcelona, Spain Member, Group Management Committee (Ret.), Royal Philips Electronics "Capitalism at the Crossroads captures a disturbing and descriptive picture of the global condition. Dr. Hart constructs a compelling new corporate business model that simultaneously merges the metric of profitability along with societal value and environmental integrity. He challenges the corporate sector to take the lead and to invoke this change so that the benefits of capitalism can be shared with the entire human community worldwide." -Mac

Bridger, CEO of Tandus Group "Stuart L. Hart makes a very important contribution to the understanding of how enterprise can help save the world's environment. Crucial reading."
-Hernando de Soto, President of The Institute for Liberty and Democracy and author of The Mystery of Capital "Stuart Hart's insights into the business sense of sustainability come through compellingly in Capitalism at the Crossroads. Any businessperson interested in the long view will find resonance with his wise reasoning." -Ray Anderson, Founder and Chairman, Interface, Inc. "This stimulating book documents the central role that business will play in humanity's efforts to develop a sustainable global economy. Professor Hart presents an attractive vision of opportunity for those corporations that develop the new technologies, new business models, and new mental frames that are essential to a sustainable future." -Jeffrey Lehman, Former President of Cornell University "The people of the world are in desperate need of new ideas if global industrial development is ever to result in something other than the rich getting richer and the poor getting poorer, with nature (and potentially all of us) suffering the collateral damage. Few have contributed more to meeting this need over the past decade than Stuart Hart by helping to illuminate the potential role for business and new thinking in business strategy in the journey ahead. Capitalism at the Crossroads challenges, provokes, and no doubt will stimulate many debates—which is exactly what is needed." -Peter Senge, Massachusetts Institute of Technology, Chairperson of the Society for Organizational Learning, and author of The Fifth Discipline: The Art and Practice of The Learning Organization New Foreword by Al Gore Brand-New Second Edition, Completely Revised with: Up-to-the-minute trends and lessons learned New and updated case studies The latest corporate responses to climate change, energy, and terrorism Global capitalism stands at a crossroads-facing

terrorism, environmental destruction, and anti-globalization backlash. Today's global companies are at a crossroads, too-searching desperately for new sources of profitable growth. Stuart L. Hart's *Capitalism at the Crossroads*, Second Edition is about solving both of those problems at the same time. It's about igniting new growth by creating sustainable products that solve urgent societal problems. It's about using new technology to deliver profitable solutions that reduce poverty and protect the environment. It's about becoming truly indigenous to all your markets, and avoiding the pitfalls of first-generation "greening" and "sustainability" strategies. Hart has thoroughly revised this seminal book with new case studies, trends, and lessons learned-including the latest experiences of leaders like GE and Wal-Mart. You'll find new insights from the pioneering BoP Protocol initiative, in which multinationals are incubating new businesses in income-poor communities. You'll also discover creative new ways in which corporations are responding to global warming and terrorism. More than ever, this book points the way toward a capitalism that's more inclusive, more welcome, and far more successful-for both companies and communities, worldwide. Paths to profitable sustainability: Lessons from GE and Wal-Mart Shattering the "trade-off" myth New commercial strategies for serving the "base of the pyramid" What enterprises have learned about doing business in income-poor regions Becoming indigenous-for real, for good Codiscovering new opportunities, cocreating new businesses with the poor Learning from leaders: 20+ new and updated case studies Best practices from DuPont, HP, Unilever, SC Johnson, Tata, P&G, Cemex, and more About the Author xii Acknowledgments xiii Foreword: Al Gore, Former Vice President of the U.S. xxiv Foreword: Fisk Johnson, Chairman and CEO, S.C. Johnson & Son, Inc. xxvii Prologue: Capitalism at the Crossroads xxxi PART ONE: MAPPING THE TERRAIN

Chapter 1: From Obligation to Opportunity 3 Chapter 2: Worlds in Collision 31 Chapter 3: The Sustainable Value Portfolio 59 PART TWO: BEYOND GREENING Chapter 4: Creative Destruction and Sustainability 87 Chapter 5: The Great Leap Downward 111 Chapter 6: Reaching the Base of the Pyramid 139 PART THREE: BECOMING INDIGENOUS Chapter 7: Broadening the Corporate Bandwidth 169 Chapter 8: Developing Native Capability 193 Chapter 9: Toward a Sustainable Global Enterprise 223 Epilogue 249 Index 254

Sweet-talk Siri® for iOS 6 into doing practically anything! In iOS 6 and OS X Mountain Lion, Siri is more amazing than ever—and it's even better when you really know how to talk to it. Now, two top Apple® tech experts show how to talk the newest version of Siri into doing more than you ever thought possible! Look up what you want to do, and you'll find tested step-by-step instructions for getting perfect results—including new ways to do everything from checking football scores to posting on Facebook! Teach Siri to recognize requests and take dictation more accurately Check Yelp reviews and place OpenTable restaurant reservations Launch apps hands-free Find out where your friends are right now Choose a great movie with Rotten Tomatoes reviews Get up-to-the-minute player stats for baseball, football, or soccer Blog with Siri using email or text messaging Tweet updates, complete with location or appointment info Create location-based reminders that trigger at destinations like the drugstore Help Siri recognize and connect with your family and friends Transform Siri into your personal media DJ Find the nearest store that's selling whatever you want Answer math and science problems with Wolfram Alpha Make sure Siri responds only to you, not to an impostor Discover

the silliness Apple engineered into Siri

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.

"A very rich book sprinkled with real-life examples as well as battle-tested advice."

—Pierre Haren, VP ILOG, IBM "James does a thorough job of explaining Decision Management Systems as enablers of a formidable business transformation." —Deepak Advani, Vice President, Business Analytics Products and SPSS, IBM Build Systems

That Work Actively to Help You Maximize Growth and Profits Most companies rely on operational systems that are largely passive. But what if you could make your systems active participants in optimizing your business? What if your systems could act intelligently on their own? Learn, not just report? Empower users to take action instead of simply escalating their problems? Evolve without massive IT investments? Decision Management Systems can do all that and more. In this book, the field's leading expert demonstrates how to use them to drive unprecedented levels of business value. James Taylor shows how to integrate operational and analytic technologies to create systems that are more agile, more analytic, and more adaptive. Through actual case studies, you'll learn how to combine technologies such as predictive analytics, optimization, and business rules—improving customer service, reducing fraud, managing risk, increasing agility, and driving growth. Both a practical how-to guide and a framework for planning, Decision Management Systems focuses on mainstream business challenges.

Coverage includes Understanding how Decision Management Systems can transform your business Planning your systems “with the decision in mind” Identifying, modeling, and prioritizing the decisions you need to optimize Designing and implementing robust decision services Monitoring your ongoing decision-making and learning how to improve it Proven enablers of effective Decision Management Systems: people, process, and technology Identifying and overcoming obstacles that can derail your Decision Management Systems initiative

“For software developers of all experience levels looking to improve their results, and design and implement domain-driven enterprise applications consistently with the best current state of professional practice, *Implementing Domain-Driven Design* will impart a treasure trove of knowledge hard won within the DDD and enterprise application architecture communities over the last couple decades.” –Randy Stafford, Architect At-Large, Oracle Coherence Product Development “This book is a must-read for anybody looking to put DDD into practice.” –Udi Dahan, Founder of NServiceBus *Implementing Domain-Driven Design* presents a top-down approach to understanding domain-driven design (DDD) in a way that fluently connects strategic patterns to fundamental tactical programming tools. Vaughn Vernon couples guided approaches to implementation with modern architectures, highlighting the importance and value of focusing on the business domain while balancing technical considerations. Building on Eric Evans’ seminal book, *Domain-Driven Design*, the author presents practical DDD techniques through examples from familiar domains. Each principle is backed up by realistic Java examples—all applicable to C# developers—and all content is tied together by a single case study: the delivery of a large-scale Scrum-based SaaS system for a multitenant environment. The author takes you far beyond “DDD-lite” approaches that embrace DDD solely as a technical toolset, and shows you how to fully leverage DDD’s “strategic design patterns” using Bounded Context, Context Maps, and the Ubiquitous Language. Using these techniques and examples, you can reduce time to market and

improve quality, as you build software that is more flexible, more scalable, and more tightly aligned to business goals. Coverage includes Getting started the right way with DDD, so you can rapidly gain value from it Using DDD within diverse architectures, including Hexagonal, SOA, REST, CQRS, Event-Driven, and Fabric/Grid-Based Appropriately designing and applying Entities—and learning when to use Value Objects instead Mastering DDD's powerful new Domain Events technique Designing Repositories for ORM, NoSQL, and other databases

Unlike any time before in our lives, we have access to vast amounts of free information. With the right tools, we can start to make sense of all this data to see patterns and trends that would otherwise be invisible to us. By transforming numbers into graphical shapes, we allow readers to understand the stories those numbers hide. In this practical introduction to understanding and using information graphics, you'll learn how to use data visualizations as tools to see beyond lists of numbers and variables and achieve new insights into the complex world around us. Regardless of the kind of data you're working with—business, science, politics, sports, or even your own personal finances—this book will show you how to use statistical charts, maps, and explanation diagrams to spot the stories in the data and learn new things from it. You'll also get to peek into the creative process of some of the world's most talented designers and visual journalists, including Condé Nast Traveler's John Grimwade, National Geographic Magazine's Fernando Baptista, The New York Times' Steve Duenes, The

Washington Post's Hannah Fairfield, Hans Rosling of the Gapminder Foundation, Stanford's Geoff McGhee, and European superstars Moritz Stefaner, Jan Willem Tulp, Stefanie Posavec, and Gregor Aisch. The book also includes a DVD-ROM containing over 90 minutes of video lessons that expand on core concepts explained within the book and includes even more inspirational information graphics from the world's leading designers. The first book to offer a broad, hands-on introduction to information graphics and visualization, *The Functional Art* reveals:

- Why data visualization should be thought of as "functional art" rather than fine art
- How to use color, type, and other graphic tools to make your information graphics more effective, not just better looking
- The science of how our brains perceive and remember information
- Best practices for creating interactive information graphics
- A comprehensive look at the creative process behind successful information graphics
- An extensive gallery of inspirational work from the world's top designers and visual artists

On the DVD-ROM: In this introductory video course on information graphics, Alberto Cairo goes into greater detail with even more visual examples of how to create effective information graphics that function as practical tools for aiding perception. You'll learn how to: incorporate basic design principles in your visualizations, create simple interfaces for interactive graphics, and choose the appropriate type of graphic forms for your data. Cairo also deconstructs successful information graphics from *The New York Times* and *National Geographic* magazine with sketches and images not shown in the book. All of Peachpit's eBooks

contain the same content as the print edition. You will find a link in the last few pages of your eBook that directs you to the media files. Helpful tips: If you are able to search the book, search for "Where are the lesson files?" Go to the very last page of the book and scroll backwards. You will need a web-enabled device or computer in order to access the media files that accompany this ebook. Entering the URL supplied into a computer with web access will allow you to get to the files. Depending on your device, it is possible that your display settings will cut off part of the URL. To make sure this is not the case, try reducing your font size and turning your device to a landscape view. This should cause the full URL to appear.

How the Internet of Things will change your life: all you need to know, in plain English! The Internet of Things (IoT) won't just connect people: It will connect "smart" homes, appliances, cars, offices, factories, cities... the world. You need to know what's coming: It might just transform your life. Now, the world's #1 author of beginning technology books has written the perfect introduction to IoT for everyone. Michael Miller shows how connected smart devices will help people do more, do it smarter, do it faster. He also reveals the potential risks—to your privacy, your freedom, and maybe your life. Make no mistake: IoT is coming quickly. Miller explains why you care, helps you use what's already here, and prepares you for the world that's hurtling toward you. --What is IoT? How does it work? How will it affect me? --What's realistic, and what's just hype? --How smart is my "smart TV" really? (And, is it watching me?) --Can smart IoT devices

make me healthier? --Will smart appliances ever be useful? --How much energy could I save with a smart home? --What's the future of wearable tech? --When will I have a self-driving car? --When will I have a nearly self-driving car? (Hint: Surprisingly soon.) --Is IoT already changing the way I shop? --What's the future of drones, at war and in my neighborhood? --Could smart cities lower my taxes? --Who gets the data my devices are collecting? --How can I profit from the Internet of Things? --What happens when the whole world is connected? --Will I have any privacy left at all?

"The security of information systems has not improved at a rate consistent with the growth and sophistication of the attacks being made against them. To address this problem, we must improve the underlying strategies and techniques used to create our systems. Specifically, we must build security in from the start, rather than append it as an afterthought. That's the point of Secure Coding in C and C++. In careful detail, this book shows software developers how to build high-quality systems that are less vulnerable to costly and even catastrophic attack. It's a book that every developer should read before the start of any serious project." --Frank Abagnale, author, lecturer, and leading consultant on fraud prevention and secure documents

Learn the Root Causes of Software Vulnerabilities and How to Avoid Them

Commonly exploited software vulnerabilities are usually caused by avoidable software defects. Having analyzed nearly 18,000 vulnerability reports over the past ten years, the CERT/Coordination Center (CERT/CC) has determined that a relatively small number

of root causes account for most of them. This book identifies and explains these causes and shows the steps that can be taken to prevent exploitation. Moreover, this book encourages programmers to adopt security best practices and develop a security mindset that can help protect software from tomorrow's attacks, not just today's. Drawing on the CERT/CC's reports and conclusions, Robert Seacord systematically identifies the program errors most likely to lead to security breaches, shows how they can be exploited, reviews the potential consequences, and presents secure alternatives. Coverage includes technical detail on how to Improve the overall security of any C/C++ application Thwart buffer overflows and stack-smashing attacks that exploit insecure string manipulation logic Avoid vulnerabilities and security flaws resulting from the incorrect use of dynamic memory management functions Eliminate integer-related problems: integer overflows, sign errors, and truncation errors Correctly use formatted output functions without introducing format-string vulnerabilities Avoid I/O vulnerabilities, including race conditions Secure Coding in C and C++ presents hundreds of examples of secure code, insecure code, and exploits, implemented for Windows and Linux. If you're responsible for creating secure C or C++ software--or for keeping it safe--no other book offers you this much detailed, expert assistance. In this long-awaited book, Timothy J. Lensmire examines the problems and promise of progressive literacy education. He does this by developing a series of striking metaphors in which, for example, he imagines the writing workshop as a carnival or

popular festival and the teacher as a novelist who writes her student-characters into more and less desirable classroom stories. Grounded in Lensmire's own and others' work in schools, *Powerful Writing, Responsible Teaching* makes powerful use of Bakhtin's theories of language and writing and Dewey's vision of schooling and democracy. Lensmire's book is, at once, a defense, a criticism, and a reconstruction of progressive and critical literacy approaches.

NOTE: This edition features the same content as the traditional text in a convenient, three-hole-punched, loose-leaf version. Books a la Carte also offer a great value--this format costs significantly less than a new textbook. The Eleventh Edition of the best-selling text *Campbell BIOLOGY* sets you on the path to success in biology through its clear and engaging narrative, superior skills instruction, and innovative use of art, photos, and fully integrated media resources to enhance teaching and learning. To engage you in developing a deeper understanding of biology, the Eleventh Edition challenges you to apply knowledge and skills to a variety of NEW! hands-on activities and exercises in the text and online. NEW! Problem-Solving Exercises challenge you to apply scientific skills and interpret data in the context of solving a real-world problem. NEW! Visualizing Figures and Visual Skills Questions provide practice interpreting and creating visual representations in biology. NEW! Content updates throughout the text reflect rapidly evolving research in the fields of genomics, gene editing technology (CRISPR), microbiomes, the impacts of climate change across the biological hierarchy,

and more. Significant revisions have been made to Unit 8, Ecology, including a deeper integration of evolutionary principles. NEW! A virtual layer to the print text incorporates media references into the printed text to direct you towards content in the Study Area and eText that will help you prepare for class and succeed in exams--Videos, Animations, Get Ready for This Chapter, Figure Walkthroughs, Vocabulary Self-Quizzes, Practice Tests, MP3 Tutors, and Interviews. (Coming summer 2017). NEW! QR codes and URLs within the Chapter Review provide easy access to Vocabulary Self-Quizzes and Practice Tests for each chapter that can be used on smartphones, tablets, and computers.

Since 2001, the CERT® Insider Threat Center at Carnegie Mellon University's Software Engineering Institute (SEI) has collected and analyzed information about more than seven hundred insider cyber crimes, ranging from national security espionage to theft of trade secrets. The CERT® Guide to Insider Threats describes CERT's findings in practical terms, offering specific guidance and countermeasures that can be immediately applied by executives, managers, security officers, and operational staff within any private, government, or military organization. The authors systematically address attacks by all types of malicious insiders, including current and former employees, contractors, business partners, outsourcers, and even cloud-computing vendors. They cover all major types of insider cyber crime: IT sabotage, intellectual property theft, and fraud. For each, they present a crime profile describing how the

crime tends to evolve over time, as well as motivations, attack methods, organizational issues, and precursor warnings that could have helped the organization prevent the incident or detect it earlier. Beyond identifying crucial patterns of suspicious behavior, the authors present concrete defensive measures for protecting both systems and data. This book also conveys the big picture of the insider threat problem over time: the complex interactions and unintended consequences of existing policies, practices, technology, insider mindsets, and organizational culture. Most important, it offers actionable recommendations for the entire organization, from executive management and board members to IT, data owners, HR, and legal departments. With this book, you will find out how to Identify hidden signs of insider IT sabotage, theft of sensitive information, and fraud Recognize insider threats throughout the software development life cycle Use advanced threat controls to resist attacks by both technical and nontechnical insiders Increase the effectiveness of existing technical security tools by enhancing rules, configurations, and associated business processes Prepare for unusual insider attacks, including attacks linked to organized crime or the Internet underground By implementing this book's security practices, you will be incorporating protection mechanisms designed to resist the vast majority of malicious insider attacks. Enterprise Integration Patterns provides an invaluable catalog of sixty-five patterns, with real-world solutions that demonstrate the formidable of messaging and help you to design effective messaging solutions for your enterprise. The authors also include

examples covering a variety of different integration technologies, such as JMS, MSMQ, TIBCO ActiveEnterprise, Microsoft BizTalk, SOAP, and XSL. A case study describing a bond trading system illustrates the patterns in practice, and the book offers a look at emerging standards, as well as insights into what the future of enterprise integration might hold. This book provides a consistent vocabulary and visual notation framework to describe large-scale integration solutions across many technologies. It also explores in detail the advantages and limitations of asynchronous messaging architectures. The authors present practical advice on designing code that connects an application to a messaging system, and provide extensive information to help you determine when to send a message, how to route it to the proper destination, and how to monitor the health of a messaging system. If you want to know how to manage, monitor, and maintain a messaging system once it is in use, get this book.

Indispensable Patterns and Insights for Putting Mashups to Work in Enterprise Environments Using new mashup tools and technologies, enterprise developers can impose their own APIs on everything from Web sites and RSS feeds to Excel and PDF files—transforming a world of content into their own customized information source. In *Mashup Patterns*, Michael Ogrinz applies the concept of software development patterns to mashups, systematically revealing the right ways to build enterprise mashups and providing useful insights to help organizations avoid the mistakes that cause mashups to fail. Drawing on extensive experience building business-critical mashups, Ogrinz

offers patterns and realistic guidance for every stage of the mashup development lifecycle and addresses the key issues developers, architects, and managers will face. Each pattern is documented with a practical description, specific use cases, and crucial insights into the stability of mashups built with it. Ogrinz concludes by presenting twelve start-to-finish case studies demonstrating mashup patterns at work in actual enterprise settings. Coverage includes: Understanding the relationships among mashups, portals, SOA, EAI/EII, and SaaS Exploring core mashup activities such as data management, surveillance, clipping, transformation, enrichment, publication, and promotion Optimizing security, privacy, accessibility, usability, and performance Managing mashup development, from planning and governance through integration, testing, and deployment Enhancing basic mashups with search, language translation, workflow support, and other improvements Performing effective load and regression testing Avoiding “anti-patterns” that cause enterprise mashups to fail Also of interest: The companion book, *Mashups: Strategies for the Modern Enterprise* by J. Jeffrey Hanson (Addison-Wesley), is an indispensable guide to designing, implementing, and debugging an enterprise mashup, offering sample code to illustrate key concepts. Use Best Practice Patterns to Understand and Architect Manageable, Efficient Information Supply Chains That Help You Leverage All Your Data and Knowledge In the era of “Big Data,” information pervades every aspect of the organization. Therefore, architecting and managing it is a multi-disciplinary task. Now, two pioneering

IBM® architects present proven architecture patterns that fully reflect this reality. Using their pattern language, you can accurately characterize the information issues associated with your own systems, and design solutions that succeed over both the short- and long-term. Building on the analogy of a supply chain, Mandy Chessell and Harald C. Smith explain how information can be transformed, enriched, reconciled, redistributed, and utilized in even the most complex environments. Through a realistic, end-to-end case study, they help you blend overlapping information management, SOA, and BPM technologies that are often viewed as competitive. Using this book's patterns, you can integrate all levels of your architecture—from holistic, enterprise, system-level views down to low-level design elements. You can fully address key non-functional requirements such as the amount, quality, and pace of incoming data. Above all, you can create an IT landscape that is coherent, interconnected, efficient, effective, and manageable. Coverage Includes Understanding how a pattern language can help you address key information management challenges Defining information strategy and governance for organizations and users Creating orderly information flows you can reuse and synchronize as needed Managing information structure, meaning, and lifecycles Providing for efficient information access and storage when deploying new IT capabilities Moving information efficiently and reliably to support your processes Determining how information should be processed and maintained Improving quality and accessibility, and supporting higher-value analytics Protecting information via

validation, transformation, enrichment, correction, security, and monitoring Planning new information management projects in the context of your existing IT resources

Customize your trading plan for greater profits using the most popular charting software

The majority of professional and individual traders use some kind of trading software on which to base their strategies. With over 100,000 users, the most popular trading software today is TradeStation, published by TradeStation Technologies. While this software is favored by many, TradeStation's computer language can be confusing, especially for the novice. TradeStation Made Easy! is the first and only book to explain exactly how to use the unique computer language behind this bestselling software program. It is not meant as a replacement for the TradeStation manuals, instead it will cover the essence of programming in EasyLanguage and focus on a consistent set of data and an elementary system throughout. An easily understood guide to TradeStation that also provides tips for the user in designing a personalized trading system Endorsed by the software provider TradeStation Technologies Written in a straightforward manner, that is accessible even for those with little computer experience TradeStation Made Easy! fills a much-needed gap in this area and puts the basics of EasyLanguage in perspective. With it, you'll be able to write simple and intermediate programs that will accurately express your theories and ideas about whatever market interests you. Describes ways to incorporate domain modeling into software development.

Master Data Analytics Hands-On by Solving Fascinating Problems You'll Actually

Enjoy! Harvard Business Review recently called data science “The Sexiest Job of the 21st Century.” It’s not just sexy: For millions of managers, analysts, and students who need to solve real business problems, it’s indispensable. Unfortunately, there’s been nothing easy about learning data science—until now. *Getting Started with Data Science* takes its inspiration from worldwide best-sellers like *Freakonomics* and Malcolm Gladwell’s *Outliers*: It teaches through a powerful narrative packed with unforgettable stories. Murtaza Haider offers informative, jargon-free coverage of basic theory and technique, backed with plenty of vivid examples and hands-on practice opportunities. Everything’s software and platform agnostic, so you can learn data science whether you work with R, Stata, SPSS, or SAS. Best of all, Haider teaches a crucial skillset most data science books ignore: how to tell powerful stories using graphics and tables. Every chapter is built around real research challenges, so you’ll always know why you’re doing what you’re doing. You’ll master data science by answering fascinating questions, such as:

- Are religious individuals more or less likely to have extramarital affairs?
- Do attractive professors get better teaching evaluations?
- Does the higher price of cigarettes deter smoking?
- What determines housing prices more: lot size or the number of bedrooms?
- How do teenagers and older people differ in the way they use social media?
- Who is more likely to use online dating services?
- Why do some purchase iPhones and others Blackberry devices?
- Does the presence of children influence a family’s spending on alcohol?

For each problem, you’ll walk through

defining your question and the answers you'll need; exploring how others have approached similar challenges; selecting your data and methods; generating your statistics; organizing your report; and telling your story. Throughout, the focus is squarely on what matters most: transforming data into insights that are clear, accurate, and can be acted upon.

This complete tutorial and reference assumes no previous knowledge of C, C++, objects, or patterns. Readers will walk through every core concept, one step at a time, learning through an extensive collection of Qt 4.1-tested examples and exercises.

A Proven Development Methodology That Delivers On the Promise of Model-Based Approaches Software continues to become more and more complex, while software consumers' expectations for performance, reliability, functionality, and speed-to-market are also growing exponentially. H. S. Lahman shows how to address all these challenges by integrating proven object-oriented techniques with a powerful new methodology. Model-Based Development represents Lahman's half century of experience as a pioneering software innovator. Building on Shlaer-Mellor's work, Lahman's unique approach fully delivers on the promise of models and is firmly grounded in the realities of contemporary development, design, and architecture. The book introduces the methodology's

core principles, showing how it separates each of a project's concerns, enabling practitioners to optimize each domain for its unique needs and characteristics. Next, it demonstrates how to perform more effective object-oriented analysis, emphasizing abstraction, disciplined partitioning, modeling invariants, finite state machines, and efficient communications among program units. Coverage includes How we got here: a historical perspective and pragmatic review of object principles Problem space versus computing space: reflecting crucial distinctions between customer and computer environments in your designs Application partitioning: why it matters and how do it well Building static models that describe basic application structure Modeling classes, class responsibilities, associations, and both referential and knowledge integrity Creating dynamic models that describe behavior via finite state machines Successfully using abstract action languages (AALs) and action data flow diagrams (ADFDs) Throughout, Lahman illuminates theoretical issues in practical terms, explaining why things are done as they are, without demanding rigorous math. His focus is on creating implementation-independent models that resolve functional requirements completely, precisely, and unambiguously. Whether you're a developer, team leader, architect, or designer, Lahman's techniques will help you build software that's more robust, easier to maintain, supports larger-scale reuse, and whose

specification is rigorous enough to enable full-scale automatic code generation.

Maximize the Value of Your Information Throughout Even the Most Complex IT Project Foreword by Tim Vincent, IBM Fellow and Vice President, CTO for IBM Analytics Group To drive maximum value from complex IT projects, IT professionals need a deep understanding of the information their projects will use. Too often, however, IT treats information as an afterthought: the “poor stepchild” behind applications and infrastructure. That needs to change. This book will help you change it. Five senior IBM architects show you how to use information-centric views to give data a central role in project design and delivery. Using Common Information Models (CIM), you learn how to standardize the way you represent information, making it easier to design, deploy, and evolve even the most complex systems. Using a complete case study, the authors explain what CIMs are, how to build them, and how to maintain them. You learn how to clarify the structure, meaning, and intent of any information you may exchange, and then use your CIM to improve integration, collaboration, and agility. In today’s mobile, cloud, and analytics environments, your information is more valuable than ever. To build systems that make the most of it, start right here.

Coverage Includes • Mastering best practices for building and maintaining a CIM
• Understanding CIM components and artifacts: scope, perspectives, and depth

of detail • Choosing the right patterns for structuring your CIM • Integrating a CIM into broader governance • Using tools to manage your CIM more effectively • Recognizing the importance of non-functional characteristics, such as availability, performance, and security, in system design • Growing CIM value by expanding their scope and usage • Previewing the future of CIMs

2012 Jolt Award Finalist! Even experienced software professionals find it difficult to apply patterns in ways that deliver substantial value to their organizations. In *Elemental Design Patterns*, Jason McC. Smith addresses this problem head-on, helping developers harness the true power of patterns, map them to real software implementations more cleanly and directly, and achieve far better results. Part tutorial, part example-rich cookbook, this resource will help developers, designers, architects, and analysts successfully use patterns with a wide variety of languages, environments, and problem domains. Every bit as important, it will give them a deeper appreciation for the work they've chosen to pursue. Smith presents the crucial missing link that patterns practitioners have needed: a foundational collection of simple core patterns that are broken down to their core elements. If you work in software, you may already be using some of these elemental design patterns every day. Presenting them in a comprehensive methodology for the first time, Smith names them, describes them, explains their

importance, helps you compare and choose among them, and offers a framework for using them together. He also introduces an innovative Pattern Instance Notation diagramming system that makes it easier to work with patterns at many levels of granularity, regardless of your goals or role. If you're new to patterns, this example-rich approach will help you master them piece by piece, logically and intuitively. If you're an experienced patterns practitioner, Smith follows the Gang of Four format you're already familiar with, explains how his elemental patterns can be composed into conventional design patterns, and introduces highly productive new ways to apply ideas you've already encountered. No matter what your level of experience, this infinitely practical book will help you transform abstract patterns into high-value solutions.

Experiential learning is a powerful and proven approach to teaching and learning that is based on one incontrovertible reality: people learn best through experience. Now, in this extensively updated book, David A. Kolb offers a systematic and up-to-date statement of the theory of experiential learning and its modern applications to education, work, and adult development. *Experiential Learning, Second Edition* builds on the intellectual origins of experiential learning as defined by figures such as John Dewey, Kurt Lewin, Jean Piaget, and L.S. Vygotsky, while also reflecting three full decades of research and practice since

the classic first edition. Kolb models the underlying structures of the learning process based on the latest insights in psychology, philosophy, and physiology. Building on his comprehensive structural model, he offers an exceptionally useful typology of individual learning styles and corresponding structures of knowledge in different academic disciplines and careers. Kolb also applies experiential learning to higher education and lifelong learning, especially with regard to adult education. This edition reviews recent applications and uses of experiential learning, updates Kolb's framework to address the current organizational and educational landscape, and features current examples of experiential learning both in the field and in the classroom. It will be an indispensable resource for everyone who wants to promote more effective learning: in higher education, training, organizational development, lifelong learning environments, and online.

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