# Managing Software Requirements: A Use Case Approach (Addison Wesley Object Technology Series)

" We need better approaches to understanding and managing software requirements, and Dean provides them in this book. He draws ideas from three very useful intellectual pools: classical management practices, Agile methods, and lean product development. By combining the strengths of these three approaches, he has produced something that works better than any one in isolation." – From the Foreword by Don Reinertsen, President of Reinertsen & Associates; author of Managing the Design Factory; and leading expert on rapid product development Effective requirements discovery and analysis is a critical best practice for serious application development. Until now, however, requirements and Agile methods have rarely coexisted peacefully. For many enterprises considering Agile approaches, the absence of effective and scalable Agile requirements processes has been a showstopper for Agile adoption. In Agile Software Requirements, Dean Leffingwell shows exactly how to create effective requirements in Agile environments. Part I presents the " big picture" of Agile requirements in the enterprise, and describes an overall process model for Agile requirements at the project team, program, and portfolio levels Part II describes a simple and lightweight, yet comprehensive model that Agile project teams can use to manage requirements Part III shows how to develop Agile requirements for complex systems that require the cooperation of multiple teams Part IV guides enterprises in developing Agile requirements for ever-larger " systems of systems," application suites, and product portfolios This book will help you leverage the benefits of Agile without sacrificing the value of effective requirements discovery and analysis. You'll find proven solutions you can apply right now– whether you're a software developer or tester, executive, project/program manager, architect, or team leader.

Business Analyst's Mentor Book includes tips and best practices in a broad range of topics like: Business analysis techniques and tools Agile and waterfall methodologies Scope management Change request management Conflict management Use cases UML Requirements gathering and documentation User interface design Usability testing Software testing Automation tools Real-life examples are provided to help readers apply these best practices in their own IT organizations. The book also answers the most frequent questions of business analysts regarding software requirements management.

A revolutionary approach to enhancing productivity, creating flow, and vastly increasing your ability to capture, remember, and benefit from the unprecedented amount of information all around us. For the first time in history, we have instantaneous access to the world's knowledge. There has never been a better time to learn, to contribute, and to improve ourselves. Yet, rather than feeling empowered, we are often left feeling overwhelmed by this constant influx of information. The very knowledge that was supposed to set us free has instead led to the paralyzing stress of believing we'll never know or remember enough. Now, this eye-opening and accessible guide shows how you can easily create your own personal system for knowledge management, otherwise known as a Second Brain. As a trusted and organized digital repository of your most valued ideas, notes, and creative work synced across all your devices and platforms, a Second Brain gives you the confidence to tackle your most important projects and ambitious goals. Discover the full potential of your ideas and translate what you know into more powerful, more meaningful improvements in your work and life by Building a Second Brain.

Optimize Your Entire Requirements Process-and Use Requirements to Build More Successful Software Using IBM® Rational® RequisitePro®, you can systematically improve the way you create and maintain requirements-and use those requirements to build more effective, higher-quality software. Now, for the first time, there's a comprehensive, hands-on guide to optimally using RequisitePro in real-world development environments. Utilizing a start-to-finish sample project, requirements expert Peter Zielczynski introduces an organized, best-practice approach to managing requirements and shows how to implement every step with RequisitePro. You'll walk through planning, eliciting, and clarifying stakeholder requirements; building use cases and other key project documents; managing changing requirements; transforming requirements into designs; and much more. Every stage of the process is illuminated with examples, realistic artifacts, and practical solutions. This book is an invaluable resource for everyone who creates requirements, and everyone who relies on them: business analysts, systems analysts, project managers, architects, designers, developers, and testers alike. Coverage includes Overcoming the three leading causes of project failure: lack of user input, incomplete requirements and specifications, and poorly managed change Understanding each type of software requirement-how they interrelate, and what makes a good requirement Establishing a Requirements Management Plan that describes how requirements are created and handled throughout the project lifecycle Developing a Vision document that can drive your project from beginning to end Creating high-quality use cases Using requirements as the basis for system design Leveraging RequisitePro features for improved project management Integrating requirements management with the IBM Rational Unified Process® Foreword xvii Preface xix Acknowledgments xxiii About the Author xxv Part I: Overview 1 Chapter 1: Requirements Management 3 Chapter 2: Overview of RequisitePro 23 Part II: Requirements Management Activities 33 Chapter 3: Establishing a Requirements Management Plan 35 Chapter 4: Setting up the Project 45 Chapter 5: Requirements Elicitation 63 Chapter 6: Developing a Vision Document 99 Chapter 7: Creating Use Cases 129 Chapter 8: Supplementary Specification 157 Chapter 9: Creating Test Cases from Use Cases 191 Chapter 10: Creating Test Cases from Supplementary Requirements 221 Chapter 11: Object-Oriented Design 243 Chapter 12: Documentation 273 Part III: Other Topics 285 Chapter 13: Managing Projects 287 Chapter 14: Requirements Management in the Rational Unified Process 295 Part IV: Review 311 Chapter 15: Summary 313 Appendix: Sample Requirements Management Plan 319 Index 327

Software Requirements

Bridge the gap between software requirements and executable specifications to deliver successful projects

Managing Software Requirements

Requirements-led Project Management

Styles and Techniques

Discovering David's Slingshot

Poor requirements management is one of the top five contributors to poor project performance. In extreme, safety critical or emergency-relief situations, failure to satisfy the real needs of the project stakeholders may well lead directly to loss of life or human suffering; other, more mundane, projects can also be severely compromised. Dr Mario Kossmann's Requirements Management looks at the process from the perspectives of both Program and Project Management and Systems Engineering, showing the crucial role of RM in both contexts. The author puts great emphasis on the human aspects of any project, which is also significant given that over-emphasis on technical or technological aspects at the expense of the human side is another major source of project shortfalls. The book offers illustrated examples of systems of different levels of complexity (one simple system, one complex, and one highly complex system) to help you categorize your own system and enable you to select the right level of formality, a suitable organization and a set of techniques and tools to carry out your requirements work. It includes a series of comprehensive checklists which can be used immediately to improve urgent requirements aspects. This is a practical and realistic guide to requirements management that provides a flexible, hands-on and innovative approach to developing and managing program, project and system requirements at different levels of complexity; read it and use the advice offered to ensure your projects can actually deliver, first time, without the need for costly and time-consuming rework.

Managing Software RequirementsA Unified ApproachAddison-Wesley Professional

No matter how much instruction you've had on managing software requirements, there's no substitute for experience. Too often, lessons about requirements engineering processes lack the no-nonsense guidance that supports real-world solutions. Complementing the best practices presented in his book, Software Requirements, Second Edition, requirements engineering authority Karl Wiegers tackles even more of the real issues head-on in this book. With straightforward, professional advice and practical solutions based on actual project experiences, this book answers many of the tough questions raised by industry professionals. From strategies for estimating and working with customers to the nuts and bolts of documenting requirements, this essential companion gives developers, analysts, and managers the cosmic truths that apply to virtually every software development project. Discover how to: • Make the business case for investing in better requirements practices • Generate estimates using three specific techniques • Conduct inquiries to elicit meaningful business and user requirements • Clearly document project scope • Implement use cases, scenarios, and user stories effectively • Improve inspections and peer reviews • Write requirements that avoid ambiguity

In their previous book, Mastering the Requirements Process, the Robertsons defined Volere - their widely adopted requirements process. In this second book, they look at the outputs from the requirements process and demonstrate how you can take advantage of the all-important links between requirements and project success.

Mastering Software Project Requirements

A Unified Approach

Managing Software Requirements Related Knowledge

Scaling Software Agility

Lean Requirements Practices for Teams, Programs, and the Enterprise

UML Xtra-Light

Most IT systems fail to meet expectations. They don't meet business goals and don't support users efficiently. Why? Because the requirements didn't address the right issues. Writing a good requirements specification doesn't take more time. This book shows how it's done – many times faster and many times smarter. What are the highlights? Two complete real-life requirements specifications (the traditional and the fast approach) and examples from many others. Explanations of both traditional and fast approaches, and discussions of their strengths and weaknesses in different project types (tailor-made, COTS, and product development). Real-life illustrations of all types of requirements, stakeholder analysis, cost/benefit and other techniques to ensure that business goals are met. Proven methods for dealing with difficult or complex requirements, such as specifying ease-of-use, or dealing with 200 reports that might be needed because they are in the old system. Who is it for? Everyone involved in the software supply chain, from analysts and developers to end users, will learn new techniques, benefit from requirements written by other specialists, and discover successes and failures from other companies. Software suppliers will find ideas for helping customers and writing competitive proposals. Programmers and other developers will learn how to express requirements without specifying technical details, and how to reduce risks when developing a system. Students aspiring to IT careers will learn the theory and practice of requirements engineering, and get a strong foundation for case studies and projects. Who is the author? Soren Lauesen is currently professor at the IT-University of Copenhagen. He has worked in the IT industry for 20 years and has been a professor at Copenhagen Business School for 15. He has been co-founder of three educational and two industrial development organizations. His industry projects have encompassed compilers, operating systems, process control, temporal databases, and software quality assurance. His research interests include human-computer interaction, requirements specification, object-oriented design, quality assurance, marketing and product development, and interaction between research and industry. He has a broad range of other interests ranging from biology to dancing and foreign cultures.

This is the digital version of the printed book (Copyright © 2005). If you develop software without understanding the requirements, you're wasting your time. On the other hand, if a project spends too much time trying to understand the requirements, it will end up late and/or over-budget. And products that are created by such projects can be just as unsuccessful as those that fail to meet the basic requirements. Instead, every company must make a reasonable trade-off between what's required and what time and resources are available. Finding the right balance for your project may depend on many factors, including the corporate culture, the time-to-market pressure, and the criticality of the application. That is why requirements management—gathering requirements, identifying the "right" ones to satisfy, and documenting them—is essential. Just Enough Requirements Management shows you how to discover, prune, and document requirements when you are subjected to tight schedule constraints. You'll apply just enough process to minimize risks while still achieving desired outcomes. You'll determine how many requirements are just enough to satisfy your customers while still meeting your goals for schedule, budget, and resources. If your project has insufficient resources to satisfy all the requirements of your customers, you must read Just Enough Requirements Management.

The Web is a globalinformationspace consistingoflinked documents andlinked data. As the Web continues to grow and new technologies, modes of interaction, and applications are being developed, the task of the Semantic Web is to unlock the power of information available on the Web into a common semantic inf- mation space and to make it available for sharing and processing by automated tools as well as by people. Right now, the publication of large datasets on the Web, the opening of data access interfaces, and the encoding of the semantics of the data extend the current human-centric Web. Now, the Semantic Web c- munity is tackling the challenges of how to create and manage Semantic Web content, how to make Semantic Web applications robust and scalable, and how to organize and integrate information from di?erent sources for novel uses. To foster the exchange of ideas and collaboration, the International Semantic Web Conference brings together researchers and practitioners in relevant disciplines such as arti?cial intelligence, databases, social networks, distributed computing, Web engineering, information systems, natural language processing, soft c- puting, and human-computer interaction. This volume contains the main proceedings of ISWC 2008, which we are – cited to o?er to the growing community of researchers and practitioners of the Semantic Web. We got a tremendous response to our call for research papers from a truly international community of researchers and practitioners from 41 countries submitting 261 papers. Each paper receivedan averageof 3.

Now in its third edition, this classic guide to software requirements engineering has been fully updated with new topics, examples, and guidance. Two leaders in the requirements community have teamed up to deliver a contemporary set of practices covering the full range of requirements development and management activities on software projects. Describes practical, effective, field-tested techniques for managing the requirements engineering process from end to end. Provides examples demonstrating how requirements "good practices" can lead to fewer change requests, higher customer satisfaction, and lower development costs. Fully updated with contemporary examples and many new practices and techniques. Describes how to apply effective requirements practices to agile projects and numerous other special project situations. Targeted to business analysts, developers, project managers, and other software project stakeholders who have a general understanding of the software development process. Shares the insights gleaned from the authors' extensive experience delivering hundreds of software-requirements training courses, presentations, and webinars. New chapters are included on specifying data requirements, writing high-quality functional requirements, and requirements reuse. Considerable depth has been added on business requirements, elicitation techniques, and nonfunctional requirements. In addition, new chapters recommend effective requirements practices for various special project situations, including enhancement and replacement, packaged solutions, outsourced, business process automation, analytics and reporting, and embedded and other real-time systems projects.

How to Ensure You Achieve What You Need from Your Projects

A Proven Method to Organize Your Digital Life and Unlock Your Creative Potential

Creating Requirements for Software Projects: A Business Analyst's Guide to Requirements Management

A Practice Guide

Getting Requirements Right

The Requirements Engineering Handbook

**Gathering customer requirements is a key activity for developing software that meets the customer's needs. A concise and practical overview of everything a requirement's analyst needs to know about establishing customer requirements, this first-of-its-kind book is the perfect desk guide for systems or software development work. The book enables professionals to identify the real customer requirements for their projects and control changes and additions to these requirements. This unique resource helps practitioners understand the importance of requirements, leverage effective requirements practices, and better utilize resources. The book also explains how to strengthen interpersonal relationships and communications which are major contributors to project effectiveness. Moreover, analysts find clear examples and checklists to help them implement best practices.**

**If you're new to writing requirements, and you're assigned to a new enterprise software or IT project to create requirements, where do you begin? How do you elicit requirements effectively from stakeholders? What's a good requirement versus a bad one? This book explains how to write requirements according to the standards in A Guide to the Business Analysis Body of Knowledge(R) (the BABOK(R) Guide) published by the International Association of Business Analysts. It describes the process you'll need to go through from start to finish, from the point that you're assigned to the project to when you finalize your requirements. It provides suggestions for tools, processes, and techniques you'll need to develop quality-oriented requirements for your stakeholders, all aligned with the knowledge areas of the BABOK(R) Guide. Some examples of requirements for the Agile software methodology are also provided. This book is written by Pamela Paterson, MS, CBAP, who is a senior business analyst with over 20 years of experience on enterprise IT projects. Pamela has written several books, including the #1 international best-seller Get the Job.**

**Capitalist Nigger is an explosive and jarring indictment of the black race. The book asserts that the Negroid race, as naturally endowed as any other, is culpably a non-productive race, a consumer race that depends on other communities for its culture, its language, its feeding and its clothing. Despite enormous natural resources, blacks are economic slaves because they lack the 'devil-may-care' attitude and the 'killer instinct' of the Caucasian, as well as the spider web mentality of the Asian. A Capitalist Nigger must embody ruthlessness in pursuit of excellence in his drive towards achieving the goal of becoming an economic warrior. In putting forward the idea of the Capitalist Nigger, Chika Onyeani charts a road to success whereby black economic warriors employ the 'Spider Web Doctrine' – discipline, self-reliance, ruthlessness – to escape from their victim mentality. Born in Nigeria, Chika Onyeani is a journalist, editor and former diplomat.**

**"Mastering the Requirements Process: Getting Requirements Right" sets out an industry-proven process for gathering and verifying requirements, regardless of whether you work in a traditional or agile development environment. In this sweeping update of the bestselling guide, the authors show how to discover precisely what the customer wants and needs, in the most efficient manner possible.**

**System and Software Requirements Engineering**

**Customer-centered Products**

**Requirements Engineering and Management for Software Development Projects**

**UML 2. 0 in Action**

**Use Cases**

**Where Software Development Meets Marketing**

Why have a book about the relation between requirements and software architecture? Understanding the relation between requirements and architecture is important because the requirements, be they explicit or implicit, represent the function, whereas the architecture determines the form. While changes to a set of requirements may impact on the realization of the architecture, choices made for an architectural solution may impact on requirements, e.g., in terms of revising functional or non-functional requirements that cannot actually be met. Although research in both requirements engineering and software architecture is quite active, it is in their combination that understanding is most needed and actively sought. Presenting the current state of the art is the purpose of this book. The editors have divided the contributions into four parts: Part 1 'Theoretical Underpinnings and Reviews' addresses the issue of requirements change management in architectural design through traceability and reasoning. Part 2 'Tools and Techniques' presents approaches, tools, and techniques for bridging the gap between software requirements and architecture. Part 3 'Industrial Case Studies' then reports industrial experiences, while part 4 on 'Emerging Issues' details advanced topics such as synthesizing architecture from requirements and the role of middleware in architecting for non-functional requirements. The final chapter is a conclusions chapter identifying key contributions and outstanding areas for future research and improvement of practice. The book is targeted at academic and industrial researchers in requirements engineering or software architecture. Graduate students specializing in these areas as well as advanced professionals in software development will also benefit from the results and experiences presented in this volume.

Introduction to tutorial: software requirements engineering: Introductions, issues and terminology: System and software systems engineering: Software requirements analysis and specifications: Software requirements methodologies and tools: Requirements and quality management: Software system engineering process models: Appendix: Author's biographies. \t.

Here is the first book to offer a practical way to identify systems requirements and manage them when budgets and schedules are tight. It describes a process that leads from fuzzy, ill-defined requirements to requirements that can be modeled and prototyped. Managing Systems Requirements presents methods for communicating requirements and achieving buy-in from system users and owners before expensive programming begins. There are techniques, tools, and software suggestions for project managers and systems analysts, plus case studies that illustrate how the whole requirements gathering process works. The cornerstone of the book is its practicality: it combines in one place a suite of methods, templates, off-the-shelf computer-based tools, and real-world examples that software developers can use to get a handle on software requirements and solve the problems they face every day on the job. IS managers, system project managers, systems analysts, and programmers will find the book indispensable and value how it integrates technical methods with organizational realities.

This book describes how to gather and define software requirements using a process based on use cases. It shows systems analysts and designers how use cases can provide solutions to the most challenging requirements issues, resulting in effective, quality systems that meet the needs of users. Use Cases, Second Edition: Requirements in Context describes a three-step method for establishing requirements—an iterative process that produces increasingly refined requirements. Drawing from their extensive, real-world experience, the authors offer a wealth of advice on use-case driven lifecycles, planning for change, and keeping on track. In addition, they include numerous detailed examples to illustrate practical applications. This second edition incorporates the many advancements in use case methodology that have occurred over the past few years. Specifically, this new edition features major changes to the methodology's iterations, and the section on management reflects the faster-paced, more "chaordic" software lifecycles prominent today. In addition, the authors have included a new chapter on use case traceability issues and have revised the appendixes to show more

clearly how use cases evolve. The book opens with a brief introduction to use cases and the Unified Modeling Language (UML). It explains how use cases reduce the incidence of duplicate and inconsistent requirements, and how they facilitate the documentation process and communication among stakeholders. The book shows you how to: Describe the context of relationships and interactions between actors and applications using use case diagrams and scenarios Specify functional and nonfunctional requirements Create the candidate use case list Break out detailed use cases and add detail to use case diagrams Add triggers, preconditions, basic course of events, and exceptions to use cases Manage the iterative/incremental use case driven project lifecycle Trace back to use cases, nonfunctionals, and business rules Avoid classic mistakes and pitfalls The book also highlights numerous currently available tools, including use case name filters, the context matrix, user interface requirements, and the authors' own "hierarchy killer."

7th International Semantic Web Conference, ISWC 2008, Karlsruhe, Germany, October 26-30, 2008, Proceedings

Agile Software Requirements

Software Requirements Engineering

Methods, Tools, and Cases

Requirements Management Using IBM Rational RequisitePro

*A detailed and practical book and eBook walk-through showing how to apply UML to real world development projects*

*A comprehensive reference for developing and managing precise software requirements shares guidelines for fostering communications between business and technical teams to maximize accuracy at the request and developmental levels. As requirements engineering continues to be recognized as the key to on-time and on-budget delivery of software and systems projects, many engineering programs have made requirements engineering mandatory in their curriculum. In addition, the wealth of new software tools that have recently emerged is empowering practicing engineers to improve their requirements engineering habits. However, these tools are not easy to use without appropriate training. Filling this need, Requirements Engineering for Software and Systems, Second Edition has been vastly updated and expanded to include about 30 percent new material. This edition updates all chapters with the latest applied research and industry practices. It also presents new material derived from the experiences of professors who have used the text in their classrooms. Improvements to this edition include: An expanded introductory chapter with extensive discussions on requirements analysis, agreement, and consolidation An expanded chapter on requirements engineering for Agile methodologies An expanded chapter on formal methods with new examples An expanded section on requirements traceability An updated and expanded section on requirements engineering tools New exercises including ones suitable for research projects Following in the footsteps of its bestselling predecessor, the text illustrates key ideas associated with requirements engineering using extensive case studies and three common example systems: an airline baggage handling system, a point-of-sale system for a large pet store chain, and a system for a smart home. This edition also includes an example of a wet well pumping system for a wastewater treatment station. With a focus on software-intensive systems, but highly applicable to non-software systems, this text provides a probing and comprehensive review of recent developments in requirements engineering in high integrity systems.*

*Apply best practices for capturing, analyzing, and implementing software requirements through visual models—and deliver better results for your business. The authors—experts in eliciting and visualizing requirements—walk you through a simple but comprehensive language of visual models that has been used on hundreds of real-world, large-scale projects. Build your fluency with core concepts—and gain essential, scenario-based context and implementation advice—as you progress through each chapter. Transcend the limitations of text-based requirements data using visual models that more rigorously identify, capture, and validate requirements Get real-world guidance on best ways to use visual models—how and when, and ways to combine them for best project outcomes Practice the book's concepts as you work through chapters Change your focus from writing a good requirement to ensuring a complete system*

*Requirements in Context*

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

*Best Practices for Large Enterprises*

*How to Specify Your Software Requirements*

*A Framework for Successful Planning, Development & Alignment*

*Ask a Manager*

*Learn how to create good requirements when designing hardware and software systems. While this book emphasizes writing traditional "shall" statements, it also provides guidance on use case design and creating user stories in support of agile methodologies. The book surveys modeling techniques and various tools that support requirements collection and analysis. You'll learn to manage requirements, including discussions of document types and digital approaches using spreadsheets, generic databases, and dedicated requirements tools. Good, clear examples are presented, many related to real-world work the author has done during his career. Requirements Writing for System Engineeringantages of different requirements approaches and implement them correctly as your needs evolve. Unlike most requirements books, Requirements Writing for System Engineering teaches writing both hardware and software requirements because many projects include both areas. To exemplify this approach, two example projects are developed throughout the book, one focusing on hardware and the other on software. This book Presents many techniques for capturing requirements. Demonstrates gap analysis to find missing requirements. Shows how to address both software and hardware, as most projects involve both. Provides extensive examples of "shall" statements, user stories, and use cases. Explains how to supplement or replace traditional requirement statements with user stories and use cases that work well in agile development environments What You Will Learn Understand the 14 techniques for capturing all requirements. Address software and hardware needs; because most projects involve both. Ensure all statements meet the 16 attributes of a good requirement. Differentiate the 19 different functional types of requirement, and the 31 non-functional types. Write requirements properly based on extensive examples of good 'shall' statements, user stories, and use cases. Employ modeling techniques to mitigate the imprecision of words. Audience Writing Requirements teaches you to write requirements the correct way. It is targeted at the requirements engineer who wants to improve and master his craft. This is also an excellent book from which to teach requirements engineering at the university level. Government organizations at all levels, from Federal to local levels, can use this book to ensure they begin all development projects correctly. As well, contractor companies supporting government development are also excellent audiences for this book.*

*Requirements Engineering and Management for Software Development Projects presents a complete guide on requirements for software development including engineering, computer science and management activities. It is the first book to cover all aspects of requirements management in software development projects. This book introduces the understanding of the requirements, elicitation and gathering, requirements analysis, verification and validation of the requirements, establishment of requirements, different methodologies in brief, requirements traceability and change management among other topics. The best practices, pitfalls, and metrics used for efficient software requirements management are also covered. Intended for the professional market, including software engineers, programmers, designers and researchers, this book is also suitable for advanced-level students in computer science or engineering courses as a textbook or reference. Publisher Fact Sheet A concise, hands-on approach to managing & improving the critical requirements process in software development.*

*Organizations continue to experience project issues associated with poor performance on requirements-related activities. This guide will give you the tools you need to excel in requirements development and management — components of the larger field of business analysis and a critical competence for project, program and portfolio management. Requirements Management: A Practice Guide is a bridge between A Guide to the Project Management Body of Knowledge (PMBOK® Guide), which speaks to requirements development and management from a high-level perspective, and Business Analysis for Practitioners: A Practice Guide, which describes requirements development and management at a detailed and practical level. This practice guide is the middle ground, offering project managers, program managers, teams members and stakeholders the opportunity to learn more about the requirements process*

*Requirements Writing for System Engineering*

*Thorny Issues and Practical Advice*

*The Semantic Web - ISWC 2008*

*Business Analyst's Mentor Book*

*Just Enough Requirements Management*

*Managing Software Requirements the Agile Way*

"Companies have been implementing large agile projects for a number of years, but the 'stigma' of 'agile only works for small projects' continues to be a frequent barrier for newcomers and a rallying cry for agile critics. What has been missing from the agile literature is a solid, practical book on the specifics of developing large projects in an agile way. Dean Leffingwell's book Scaling Software Agility fills this gap admirably. It offers a practical guide to large project issues such as architecture, requirements development, multi-level release planning, and team organization. Leffingwell's book is a necessary guide for large projects and large organizations making the transition to agile development." —Jim Highsmith, director, Agile Practice, Cutter Consortium, author of Agile Project Management "There's tension between building software fast and delivering software that lasts, between being ultra-responsive to changes in the market and maintaining a degree of stability. In his latest work, Scaling Software Agility, Dean Leffingwell shows how to achieve a pragmatic balance among these forces. Leffingwell's observations of the problem, his advice on the solution, and his description of the resulting best practices come from experience: he's been there, done that, and has seen what's worked." —Grady Booch, IBM Fellow Agile development practices, while still controversial in some circles, offer undeniable benefits: faster time to market, better responsiveness to changing customer requirements, and higher quality. However, agile practices have been defined and recommended primarily to small teams. In Scaling Software Agility, Dean Leffingwell describes how agile methods can be applied to enterprise-class development. Part I provides an overview of the most common and effective agile methods. Part II describes seven best practices of agility that natively scale to the enterprise level. Part III describes an additional set of seven organizational capabilities that companies can master to achieve the full benefits of software agility on an enterprise scale. This book is invaluable to software developers, testers and QA personnel, managers and team leads, as well as to executives of software organizations whose objective is to increase the quality and productivity of the software development process but who are faced with all the challenges of developing software on an enterprise scale.

Requirements engineering is the process by which the requirements for software systems are gathered, analyzed, documented, and managed throughout their complete lifecycle. Traditionally it has been concerned with technical goals for, functions of, and constraints on software systems. Aurum and Wohlin, however, argue that it is no longer appropriate for software systems professionals to focus only on functional and non-functional aspects of the intended system and to somehow assume that organizational context and needs are outside their remit. Instead, they call for a broader perspective in order to gain a better understanding of the interdependencies between enterprise stakeholders, processes, and software systems, which would in turn give rise to more appropriate techniques and higher-quality systems. Following an introductory chapter that provides an exploration of key issues in requirements engineering, the book is organized in three parts. Part 1 presents surveys of state-of-the art requirements engineering process research along with critical assessments of existing models, frameworks and techniques. Part 2 addresses key areas in requirements engineering, such as market-driven requirements engineering, goal modeling, requirements ambiguity, and others. Part 3 concludes the book with articles that present empirical evidence and experiences from practices in industrial projects. Its broader perspective gives this book its distinct appeal and makes it of interest to both researchers and practitioners, not only in software engineering but also in other disciplines such as business process engineering and management science.

Learn how to deliver software that meets your clients' needs with the help of a structured, end-to-end methodology for managing software requirements and building suitable systems Key FeaturesLearn how to communicate with a project's stakeholders to elicit software requirementsDeal every phase of the requirement life cycle with pragmatic methods and techniquesManage the software development process and deliver verified requirements using Scrum and KanbanBook Description Difficulty in accurately capturing and managing requirements is the most common cause of software project failure. Learning how to analyze and model requirements and produce specifications that are connected to working code is the single most fundamental step that you can take toward project success. This book focuses on a delineated and structured methodology that will help you analyze requirements and write comprehensive, verifiable specifications. You'll start by learning about the different entities in the requirements domain and how to discover them based on customer input. You'll then explore tried-and-tested methods such as impact mapping and behavior-driven development (BDD), along with new techniques such as D3 and feature-first development. This book takes you through the process of modeling customer requirements as impact maps and writing them as executable specifications. You'll also understand how to organize and prioritize project tasks using Agile frameworks, such as Kanban and Scrum, and verify specifications against the delivered code. Finally, you'll see how to start implementing the requirements management methodology in a real-life scenario. By the end of this book, you'll be able to model and manage requirements to create executable specifications that will help you deliver successful software projects. What you will learnKick-start the requirements-gathering and analysis process in your first meeting with the clientAccurately define system behavior as featuresModel and describe requirement entities using Impact Mapping and BDDCreate a feature-based product backlog and use it to drive software developmentWrite verification code to turn features into executable specificationsDeliver the right software and respond to change using either Scrum or KanbanChoose appropriate software tools to provide transparency and traceability to your clientsWho this book is for This book is for software engineers, business analysts, product managers, project managers, and software project stakeholders looking to learn a variety of techniques and methodologies for collating accurate software requirements. A fundamental understanding of the software development life cycle (SDLC) is needed to get started with this book. Although not necessary, basic knowledge of the Agile philosophy and practices, such as Scrum, along with some programming experience will help you to get the most out of this book.

This book focuses on the interfaces of Requirements Management to the other disciplines of Systems Engineering. An introduction into Requirements Management and Requirements Development is given, along with a short sketch of Systems Engineering, and especially the necessary inputs and resulting outputs of Requirements Management are explained. Using these it is shown how Requirements Management can support and optimize the other project disciplines.

Visual Models for Software Requirements

Relating Software Requirements and Architectures

Engineering and Managing Software Requirements

The Interface Between Requirements Development and All Other Systems Engineering Processes

Mastering the Requirements Process

Creating Successful Products Through Smart Requirements Management

A classic treatise that defined the field of applied demand analysis, Consumer Demand in the United States: Prices, Income, and Consumption Behavior is now fully updated and expanded for a new generation. Consumption expenditures by households in the United States account for about 70% of Americaâ__s GDP. The primary focus in this book is on how households adjust these expenditures in response to changes in price and income. Econometric estimates of price and income elasticities are obtained for an exhaustive array of goods and services using data from surveys conducted by the Bureau of Labor Statistics, providing a better understanding of consumer demand. Practical models for forecasting future price and income elasticities are also demonstrated. Fully revised with over a dozen new chapters and appendices, the book revisits the original Taylor-Houthakker models while examining new material as well, such as the use of quantile regression and the stationarity of consumer preference. It also explores the emerging connection between neuroscience and consumer behavior, integrating the economic literature on demand theory with psychology literature. The most comprehensive treatment of the topic to date, this volume will be an essential resource for any researcher, student or professional economist working on consumer behavior or demand theory, as well as investors and policymakers concerned with the impact of economic fluctuations.

This is a guide to eliminating the waste of time, money and effort resulting from poor product development. It provides product definition requirements needed at the start of any product development process.

If you are a non-technical person with a stake in the success of a software project, this book is for you. Business managers often find it impossible to communicate business objectives and specify their software requirements to technical members of staff. This beginner's guide teaches readers to communicate with software developers in a more focused, effective way. It describes the basic diagrams of the UML modeling notation and shows how they are used to specify requirements in a unambiguous way. When used on project, the risk of failure through unclear requirements is removed.

This book is a concise step-by-step guide to building and establishing the frameworks and models for the effective management and development of software requirements. It describes what great requirements must look like and who the real audience is for documentation. It then explains how to generate consistent, complete, and accurate requirements in exacting detail following a simple formula across the full life cycle from vague concept to detailed design-ready specifications. Mastering Software Project Requirements will enable business analysts and project managers to decompose high-level solutions into granular requirements and to elevate their performance through due diligence and the use of better techniques to meet the particular needs of a given project without sacrificing quality, scope, or project schedules. J. Ross Publishing offers an add-on at a nominal cost — Downloadable, customizable tools and templates ready for immediate implementation.

The Road To Success – A Spider Web Doctrine

Capitalist Nigger

The Software Requirements Memory Jogger

A Project-based Tutorial

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With Best Practice Business Analysis Techniques and Software Requirements Management Tips

From the creator of the popular website Ask a Manager and New York's work-advice columnist comes a witty, practical guide to 200 difficult professional conversations—featuring all-new advice! There's a reason Alison Green has been called "the Dear Abby of the work world." Ten years as a workplace-advice columnist have taught her that people avoid awkward conversations in the office because they simply don't know what to say. Thankfully, Green does—and in this incredibly helpful book, she tackles the tough discussions you may need to have during your career. You'll learn what to say when • coworkers push their work on you—then take credit for it • you accidentally trash-talk someone in an email then hit "reply all" • you're being micromanaged—or not being managed at all • you catch a colleague in a lie • your boss seems unhappy with your work • your cubemate's loud speakerphone is making you homicidal • you got drunk at the holiday party Praise for Ask a Manager "A must-read for anyone who works . . . [Alison Green's] advice boils down to the idea that you should be professional (even when others are not) and that communicating in a straightforward manner with candor and kindness will get you far, no matter where you work."—Booklist (starred review) "The author's friendly, warm, no-nonsense writing is a pleasure to read, and her advice can be widely applied to relationships in all areas of readers' lives. Ideal for anyone new to the job market or new to management, or anyone hoping to improve their work experience."—Library Journal (starred review) "I am a huge fan of Alison Green's Ask a Manager column. This book is even better. It teaches us how to deal with many of the most vexing big and little problems in our workplaces—and to do so with grace, confidence, and a sense of humor."—Robert Sutton, Stanford professor and author of The No Asshole Rule and The Asshole Survival Guide "Ask a Manager is the ultimate playbook for navigating the traditional workforce in a diplomatic but firm way."—Erin Lowry, author of Broke Millennial: Stop Scraping By and Get Your Financial Life Together

Requirements Management

Building a Second Brain

A Pocket Guide to Help Software and Business Teams Develop and Manage Requirements

Requirements Engineering for Software and Systems, Second Edition

Managing Systems Requirements