

## Writing Effective Use Cases Agile Software Development Series

The first book to cover Agile Modeling, a new modeling technique created specifically for XP projects eXtreme Programming (XP) has created a buzz in the software development community-much like Design Patterns did several years ago. Although XP presents a methodology for faster software development, many developers find that XP does not allow for modeling time, which is critical to ensure that a project meets its proposed requirements. They have also found that standard modeling techniques that use the Unified Modeling Language (UML) often do not work with this methodology. In this innovative book, Software Development columnist Scott Ambler presents Agile Modeling (AM)-a technique that he created for modeling XP projects using pieces of the UML and Rational's Unified Process (RUP). Ambler clearly explains AM, and shows readers how to incorporate AM, UML, and RUP into their development projects with the help of numerous case studies integrated throughout the book. AM was created by the author for modeling XP projects-an element lacking in the original XP design. The XP community and its creator have embraced AM, which should give this book strong market acceptance. Companion Web site at [www.agilemodeling.com](http://www.agilemodeling.com) features updates, links to XP and AM resources, and ongoing case studies about agile modeling.

As more companies move toward microservices and other distributed technologies, the complexity of these systems increases. You can't remove the complexity, but through Chaos Engineering you can discover vulnerabilities and prevent outages before they impact your customers. This practical guide shows engineers how to navigate complex systems while optimizing to meet business goals. Two of the field's prominent figures, Casey Rosenthal and Nora Jones, pioneered the discipline while working together at Netflix. In this book, they expound on the what, how, and why of Chaos Engineering while facilitating a conversation from practitioners across industries. Many chapters are written by contributing authors to widen the perspective across verticals within (and beyond) the software industry. Learn how Chaos Engineering enables your organization to navigate complexity. Explore a methodology to avoid failures within your application, network, and infrastructure. Move from theory to practice through real-world stories from industry experts at Google, Microsoft, Slack, and LinkedIn, among others. Establish a framework for thinking about complexity within software systems. Design a Chaos Engineering program around game days and move toward highly targeted, automated experiments. Learn how to design continuous collaborative chaos experiments.

Discusses how to define and organize use cases that model the user requirements of a software application. The approach focuses on identifying all the parties who will be using the system, then writing detailed use case descriptions and structuring the use case model. An ATM example runs throughout the book. The authors work at Rational Software. Annotation copyrighted by Book News, Inc., Portland, OR

The Agile Model-Based Systems Engineering Cookbook distills the most relevant MBSE workflows and work products into a set of easy-to-follow recipes, complete with examples of their application. This book serves as a quick and reliable practical reference for systems engineers looking to apply agile MBSE to real-world projects.

**WHAT IS THIS BOOK ABOUT?** Communicate Business Needs in an Agile (e.g. Scrum) or Lean (e.g. Kanban) Environment. Problem solvers are in demand in every organization, large and small, from a Mom and Pop shop to the federal government. Increase your confidence and your value to organizations by improving your ability to analyze, extract, express, and discuss business needs in formats supported by Agile, Lean, and DevOps. The single largest challenge facing organizations around the world is how to leverage their Information Technology to gain competitive advantage. This is not about how to program the devices; it is figuring out what the devices should do. The skills needed to identify and define the best IT solutions are invaluable for every role in the organization. These skills can propel you from the mail room to the boardroom by making your organization more effective and more profitable. Whether you: - are tasked with defining business needs for a product or existing software, - need to prove that a digital solution works, - want to expand your User Story and requirements discovery toolkit, or - are interested in becoming a Business Analyst, this book presents invaluable ideas that you can steal. The future looks bright for those who embrace Lean concepts and are prepared to engage with the business community to ensure the success of Agile initiatives.

**WHAT YOU WILL LEARN**

Learn Step by Step When and How to Define Lean / Agile Requirements. Agile, Lean, DevOps, and Continuous Delivery do not change the need for good business analysis. In this book, you will learn how the new software development philosophies influence the discovery, expression, and analysis of business needs. We will cover User Stories, Features, and Quality Requirements (a.k.a. Non-functional Requirements – NFR). User Story Splitting and Feature Drill-down transform business needs into technology solutions. Acceptance Tests (Scenarios, Scenario Outlines, and Examples) have become a critical part of many Lean development approaches. To support this new testing paradigm, you will also learn how to identify and optimize Scenarios, Scenario Outlines, and Examples in GIVEN-WHEN-THEN format (Gherkin) that are the bases for Acceptance Test Driven Development (ATDD) and Behavior Driven Development (BDD). This book presents concrete approaches that take you from day one of a change initiative to the ongoing acceptance testing in a continuous delivery environment. The authors introduce novel and innovative ideas that augment tried-and-true techniques for: - discovering and capturing what your stakeholders need, - writing and refining the needs as the work progresses, and - developing scenarios to verify that the software does what it should. Approaches that proved their value in conventional settings have been redefined to ferret out and eliminate waste (a pillar of the Lean philosophy). Those approaches are fine-tuned and perfected to support the Lean and Agile movement that defines current software development. In addition, the book is chock-full of examples and exercises that allow you to confirm your understanding of the presented ideas.

**WHO WILL BENEFIT FROM READING THIS BOOK?** How organizations develop and deliver working software has changed significantly in recent years. Because the change was greatest in the developer community, many books and courses justifiably target that group. There is, however, an overlooked group of people

essential to the development of software-as-an-asset that have been neglected. Many distinct roles or job titles in the business community perform business needs analysis for digital solutions. They include: - Product Owners - Business Analysts - Requirements Engineers - Test Developers - Business- and Customer-side Team Members - Agile Team Members - Subject Matter Experts (SME) - Project Leaders and Managers - Systems Analysts and Designers - AND “anyone wearing the business analysis hat”, meaning anyone responsible for defining a future IT solution TOM AND ANGELA’S (the authors) STORY Like all good IT stories, theirs started on a project many years ago. Tom was the super techie, Angela the super SME. They fought their way through the 3-year development of a new policy maintenance system for an insurance company. They vehemently disagreed on many aspects, but in the process discovered a fundamental truth about IT projects. The business community (Angela) should decide on the business needs while the technical team’s (Tom)’s job was to make the technology deliver what the business needed. Talk about a revolutionary idea! All that was left was learning how to communicate with each other without bloodshed to make the project a resounding success. Mission accomplished. They decided this epiphany was so important that the world needed to know about it. As a result, they made it their mission (and their passion) to share this ground-breaking concept with the rest of the world. To achieve that lofty goal, they married and began the mission that still defines their life. After over 30 years of living and working together 24x7x365, they are still wildly enthusiastic about helping the victims of technology learn how to ask for and get the IT solutions they need to do their jobs better. More importantly, they are more enthusiastically in love with each other than ever before!

Most Business Analysts are familiar Use Cases. There are plenty of books about them. Use Cases came into the mainstream for software development in the late 90s and have evolved over time. Some people prefer User Stories, as they are called in agile methodologies. This book will argue that they are essentially the same, it's just what you put into them that might be different. More importantly, I wrote this book to share my insights of the when to write use cases, how to write them lean, and why bother with them at all. This book is focused on use cases and touches on the peripheral competencies that are needed elicit and develop good requirements. A use case writer should also have strong skills in requirements analysis, requirements traceability, and visual modeling. Also, this book follows a philosophy of being a minimalist and keeping to only what adds value to the process. A general knowledge of lean principles is recommended to aide in understanding why some things are important and some are not. There are several good books on the subject. Provides 31 development and structural patterns for software developers to refer to as examples of well-written use cases that help model software requirements. The development patterns describe the characteristics of good writing practices and project organization, while the structural patterns identify the basic components of use cases and how they should be organized. Annotation copyrighted by Book News, Inc., Portland, OR

User story mapping is a valuable tool for software development, once you understand why and how to use it. This insightful book examines how this often misunderstood technique can help your team stay focused on users and their needs without getting lost in the enthusiasm for individual product features. Author Jeff Patton shows you how changeable story maps enable your team to hold better conversations about the project throughout the development process. Your team will learn to come away with a shared understanding of what you’re attempting to build and why. Get a high-level view of story mapping, with an exercise to learn key concepts quickly Understand how stories really work, and how they come to life in Agile and Lean projects Dive into a story’s lifecycle, starting with opportunities and moving deeper into discovery Prepare your stories, pay attention while they’re built, and learn from those you convert to working software

\*Describes an agile process that works on large projects \*Ideal for hurried developers who want to develop software in teams \*Incorporates real-life C#/.NET web project; can compare this with cases in book

The rules and practices for Scrum—a simple process for managing complex projects—are few, straightforward, and easy to learn. But Scrum’s simplicity itself—its lack of prescription—can be disarming, and new practitioners often find themselves reverting to old project management habits and tools and yielding lesser results. In this illuminating series of case studies, Scrum co-creator and evangelist Ken Schwaber identifies the real-world lessons—the successes and failures—culled from his years of experience coaching companies in agile project management. Through them, you’ll understand how to use Scrum to solve complex problems and drive better results—delivering more valuable software faster. Gain the foundation in Scrum theory—and practice—you need to: Rein in even the most complex, unwieldy projects Effectively manage unknown or changing product requirements Simplify the chain of command with self-managing development teams Receive clearer specifications—and feedback—from customers Greatly reduce project planning time and required tools Build—and release—products in 30-day cycles so clients get deliverables earlier Avoid missteps by regularly inspecting, reporting on, and fine-tuning projects Support multiple teams working on a large-scale project from many geographic locations Maximize return on investment!

How can you establish a customer-centric culture in an organization? This is the first comprehensive book on how to actually do service design to improve the quality and the interaction between service providers and customers. You’ll learn specific facilitation guidelines on how to run workshops, perform all of the main service design methods, implement concepts in reality, and embed service design successfully in an organization. Great customer experience needs a common language across disciplines to break down silos within an organization. This book provides a consistent model for accomplishing this and offers hands-on descriptions of every single step, tool, and method used. You’ll be able to focus on your customers and iteratively improve their experience. Move from theory to practice and build sustainable business success.

The acclaimed beginner's book on object technology now presents UML 2.0, Agile Modeling, and the latest in object development techniques.

Thoroughly reviewed and eagerly anticipated by the agile community, *User Stories Applied* offers a requirements process that saves time, eliminates rework, and leads directly to better software. The best way to build software that meets users' needs is to begin with "user stories": simple, clear, brief descriptions of functionality that will be valuable to real users. In *User Stories Applied*, Mike Cohn provides you with a front-to-back blueprint for writing these user stories and weaving them into your development lifecycle. You'll learn what makes a great user story, and what makes a bad one. You'll discover practical ways to gather user stories, even when you can't speak with your users. Then, once you've compiled your user stories, Cohn shows how to organize them, prioritize them, and use them for planning, management, and testing. User role modeling: understanding what users have in common, and where they differ Gathering stories: user interviewing, questionnaires, observation, and workshops Working with managers, trainers, salespeople and other "proxies" Writing user stories for acceptance testing Using stories to prioritize, set schedules, and estimate release costs Includes end-of-chapter practice questions and exercises *User Stories Applied* will be invaluable to every software developer, tester, analyst, and manager working with any agile method: XP, Scrum... or even your own home-grown approach.

The Systems Modeling Language (SysML) extends UML with powerful systems engineering capabilities for modeling a wider spectrum of systems and capturing all aspects of a system's design. *SysML Distilled* is the first clear, concise guide for everyone who wants to start creating effective SysML models. (Drawing on his pioneering experience at Lockheed Martin and NASA, Lenny Delligatti illuminates SysML's core components and provides practical advice to help you create good models and good designs. Delligatti begins with an easy-to-understand overview of Model-Based Systems Engineering (MBSE) and an explanation of how SysML enables effective system specification, analysis, design, optimization, verification, and validation. Next, he shows how to use all nine types of SysML diagrams, even if you have no previous experience with modeling languages. A case study running through the text demonstrates the use of SysML in modeling a complex, real-world sociotechnical system. Modeled after Martin Fowler's classic *UML Distilled*, Delligatti's indispensable guide quickly teaches you what you need to know to get started and helps you deepen your knowledge incrementally as the need arises. Like SysML itself, the book is method independent and is designed to support whatever processes, procedures, and tools you already use. Coverage Includes Why SysML was created and the business case for using it Quickly putting SysML to practical use What to know before you start a SysML modeling project Essential concepts that apply to all SysML diagrams SysML diagram elements and relationships Diagramming block definitions, internal structures, use cases, activities, interactions, state machines, constraints, requirements, and packages Using allocations to define mappings among elements across a model SysML notation tables, version changes, and sources for more information

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*Proven Patterns and Techniques for Succeeding with Agile in Your Organization* Agile methods promise to help you create software that delivers far more business value—and do it faster, at lower cost, and with less pain. However, many organizations struggle with implementation and leveraging these methods to their full benefit. In this book, Amr Elssamadisy identifies the powerful lessons that have been learned about successfully moving to agile and distills them into 30 proven agile adoption patterns. Elssamadisy walks you through the process of defining your optimal agile adoption strategy with case studies and hands-on exercises that illuminate the key points. He systematically examines the most common obstacles to agile implementation, identifying proven solutions. You'll learn where to start, how to choose the best agile practices for your business and technical environment, and how to adopt agility incrementally, building on steadily growing success.

Writing use cases as a means of capturing the behavioral requirements of software systems and business processes is a practice that is quickly gaining popularity. Use cases provide a beneficial means of project planning because they clearly show how people will ultimately use the system being designed. On the surface, use cases appear to be a straightforward and simple concept. Faced with the task of writing a set of use cases, however, practitioners must ask: "How exactly am I supposed to write use cases?" Because use cases are essentially prose essays, this question is not easily answered, and as a result, the task can become formidable. In *Writing Effective Use Cases*, object technology expert Alistair Cockburn presents an up-to-date, practical guide to use case writing. The author borrows from his extensive experience in this realm, and expands on the classic treatments of use cases to provide software developers with a "nuts-and-bolts" tutorial for writing use cases. The book thoroughly covers introductory, intermediate, and advanced concepts, and is, therefore, appropriate for all knowledge levels. Illustrative writing examples of both good and bad use cases reinforce the author's instructions. In addition, the book contains helpful learning exercises—with answers—to illuminate the most important points. Highlights of the book include: A thorough discussion of the key elements of use cases—actors, stakeholders, design scope, scenarios, and more A use case style guide with action steps and suggested formats An extensive list of time-saving use case writing tips A helpful presentation of use case templates, with commentary on when and where they should be employed A proven methodology for taking advantage of use cases With this book as your guide, you will learn the essential elements of use case writing, improve your use case writing skills, and be well on your way to employing use cases effectively for your next development project.

Extreme Programming has come a long way since its first use in the C3 project almost 10 years ago. Agile methods have found their way into the mainstream, and at the end of last year we saw the second edition of Kent Beck's book on Extreme Programming, containing a major refactoring of XP. This year, the 6th International Conference on Extreme Programming and Agile Processes in Software Engineering took place June 18–23 in Sheffield. As in the years before, XP 2005 provided a unique forum for industry and academic professionals to discuss their needs and ideas on Extreme Programming and other methodologies. These proceedings reflect the activities during the conference which ranged from presentation of research papers, invited talks, posters and demonstrations, panels and activity sessions, to tutorials and workshops. Included are also papers from the Ph.D. and Master's Symposium which provided a forum for young researchers to present their results and to get feedback. As varied as the activities were the topics of the conference which covered the presentation of new and improved practices, empirical studies, experience reports and case studies, and last but not least the social aspects of agile methods. The papers and the activities went through a rigorous reviewing process. Each paper was reviewed by at least three Program

Committee members and was discussed carefully among the Program Committee. Of 62 papers submitted, only 22 were accepted as full papers. "Agile Software Development is a highly stimulating and rich book. The author has a deep background and gives us a tour de force of the emerging agile methods." —Tom Gilb The agile model of software development has taken the world by storm. Now, in *Agile Software Development, Second Edition*, one of agile's leading pioneers updates his Jolt Productivity award-winning book to reflect all that's been learned about agile development since its original introduction. Alistair Cockburn begins by updating his powerful model of software development as a "cooperative game of invention and communication." Among the new ideas he introduces: harnessing competition without damaging collaboration; learning lessons from lean manufacturing; and balancing strategies for communication. Cockburn also explains how the cooperative game is played in business and on engineering projects, not just software development. Next, he systematically illuminates the agile model, shows how it has evolved, and answers the questions developers and project managers ask most often, including · Where does agile development fit in our organization? · How do we blend agile ideas with other ideas? · How do we extend agile ideas more broadly? Cockburn takes on crucial misconceptions that cause agile projects to fail. For example, you'll learn why encoding project management strategies into fixed processes can lead to ineffective strategy decisions and costly mistakes. You'll also find a thoughtful discussion of the controversial relationship between agile methods and user experience design. Cockburn turns to the practical challenges of constructing agile methodologies for your own teams. You'll learn how to tune and continuously reinvent your methodologies, and how to manage incomplete communication. This edition contains important new contributions on these and other topics: · Agile and CMMI · Introducing agile from the top down · Revisiting "custom contracts" · Creating change with "stickers" In addition, Cockburn updates his discussion of the Crystal methodologies, which utilize his "cooperative game" as their central metaphor. If you're new to agile development, this book will help you succeed the first time out. If you've used agile methods before, Cockburn's techniques will make you even more effective.

Provides recommendations and case studies to help with the implementation of Scrum.

**WHAT IS THIS BOOK ABOUT?** This Book Is About the "Card" (User Story: Card, Criteria, Conversation) User Stories are a great method for expressing stakeholder requirements, whether your projects follow an Agile, Iterative, or a Waterfall methodology. They are the basis for developers to deliver a suitable information technology (IT) app or application. Well-structured user stories express a single action to achieve a specific goal from the perspective of a single role. When writing user stories, stakeholders knowledgeable about the role should focus on the business result that the IT solution will enable while leaving technology decisions up to the developers. Good user stories are relevant to the project, unambiguous, and understandable to knowledge peers. The best user stories also contain crucial non-functional (quality) requirements, which are the best weapon in the war against unsatisfactory performance in IT solutions. This book presents two common user story structures to help you ensure that your user stories have all the required components and that they express the true business need as succinctly as possible. It offers five simple rules to ensure that your user stories are the best that they can be. That, in turn, will reduce the amount of time needed in user story elaboration and discussion with the development team. This book targets business professionals who are involved with an IT project, Product Owners in charge of managing a backlog, or Business Analysts working with an Agile team. **Author's Note** The term "User Story" is a relative new addition to our language and its definition is evolving. In today's parlance, a complete User Story has three primary components, namely the "Card", the "Conversation", and the "Criteria". Different roles are responsible for creating each component. The "Card" expresses a business need. A representative of the business community is responsible for expressing the business need. Historically (and for practical reasons) the "Card" is the User Story from the perspective of the business community. Since we wrote this book specifically to address that audience, we use the term "User Story" in that context throughout. The "Conversation" is an ongoing discussion between a developer responsible for creating software that meets the business need and the domain expert(s) who defined it (e.g., the original author of the "Card"). The developer initiates the "Conversation" with the domain expert(s) to define the "Criteria" and any additional information the developer needs to create the application. There is much to be written about both the "Conversation" and the "Criteria", but neither component is dealt with in any detail in this publication. A well-written User Story ("Card") can drastically reduce the time needed for the "Conversation". It reduces misinterpretations, misunderstandings, and false starts, thereby paving the way for faster delivery of working software. We chose to limit the content of this publication to the "User Story" as understood by the business community to keep the book focused and address the widest possible audience.

**WHO WILL BENEFIT FROM READING THIS BOOK?** How organizations develop and deliver working software has changed significantly in recent years. Because the change was greatest in the developer community, many books and courses justifiably target that group. There is, however, an overlooked group of people essential to the development of software-as-an-asset that have been neglected. Many distinct roles or job titles in the business community perform business needs analysis for digital solutions. They include: - Product Owners - Business Analysts - Requirements Engineers - Test Developers - Business- and Customer-side Team Members - Agile Team Members - Subject Matter Experts (SME) - Project Leaders and Managers - Systems Analysts and Designers - AND "anyone wearing the business analysis hat", meaning anyone responsible for defining a future IT solution **TOM AND ANGELA'S (the authors) STORY** Like all good IT stories, theirs started on a project many years ago. Tom was the super techie, Angela the super SME. They fought their way through the 3-year development of a new policy maintenance system for an insurance company. They vehemently disagreed on many aspects, but in the process discovered a fundamental truth about IT projects. The business community (Angela) should decide on the business needs while the technical team's (Tom)'s job was to make the technology deliver what the business needed. Talk about a revolutionary idea! All that was left was learning how to communicate with each other without bloodshed to make the project a resounding success. Mission accomplished. They decided this epiphany was so important that the world needed to know about it. As a result, they made it their mission (and their passion) to share this ground-breaking concept with the rest of the world. To achieve that lofty goal, they married and began the mission that still defines their life. After over 30 years of living and working together 24x7x365, they are still wildly enthusiastic about helping the victims of technology learn how to ask for and get the digital (IT) solutions they need to do their jobs better. More importantly, they are more enthusiastically in love with each other than ever before!

**Agile Estimating and Planning** is the definitive, practical guide to estimating and planning agile projects. In this book, Agile Alliance cofounder Mike Cohn discusses the philosophy of agile estimating and planning and shows you exactly how to get the job done, with real-world examples and case studies. Concepts are clearly illustrated and readers are guided, step by step, toward how to answer the following questions: What will we build? How big will it be? When must it be done? How much can I really complete by then? You will first learn what makes a good plan—and then what makes it agile. Using the techniques in *Agile Estimating and Planning*, you can stay agile from start to finish, saving time, conserving resources, and accomplishing more. Highlights include: Why conventional prescriptive planning fails and why agile planning works How to estimate feature size using story points and ideal days—and when to use each How and when to re-estimate How to prioritize features using both financial and nonfinancial approaches How to split large features into smaller, more manageable ones How to plan iterations and predict your team's initial rate of progress How to schedule projects that have unusually high uncertainty or schedule-related risk How to estimate projects that will be worked on by multiple teams *Agile Estimating and Planning* supports any agile, semiagile, or iterative process, including Scrum, XP, Feature-Driven Development, Crystal, Adaptive Software Development, DSDM, Unified Process, and many more. It will be an indispensable resource for every development manager, team leader, and team member.

**Publisher Fact Sheet** A concise, hands-on approach to managing & improving the critical requirements process in software development.

If you want to push your Java skills to the next level, this book provides expert advice from Java leaders and practitioners. You'll be

encouraged to look at problems in new ways, take broader responsibility for your work, stretch yourself by learning new techniques, and become as good at the entire craft of development as you possibly can. Edited by Kevlin Henney and Trisha Gee, *97 Things Every Java Programmer Should Know* reflects lifetimes of experience writing Java software and living with the process of software development. Great programmers share their collected wisdom to help you rethink Java practices, whether working with legacy code or incorporating changes since Java 8. A few of the 97 things you should know: "Behavior Is Easy, State Is Hard"—Edson Yanaga "Learn Java Idioms and Cache in Your Brain"—Jeanne Boyarsky "Java Programming from a JVM Performance Perspective"—Monica Beckwith "Garbage Collection Is Your Friend"—Holly K Cummins "Java's Unspeakable Types"—Ben Evans "The Rebirth of Java"—Sander Mak "Do You Know What Time It Is?"—Christin Gorman

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 America'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.

More and more Agile projects are seeking architectural roots as they struggle with complexity and scale - and they're seeking lightweight ways to do it Still seeking? In this book the authors help you to find your own path Taking cues from Lean development, they can help steer your project toward practices with longstanding track records Up-front architecture? Sure. You can deliver an architecture as code that compiles and that concretely guides development without bogging it down in a mass of documents and guesses about the implementation Documentation? Even a whiteboard diagram, or a CRC card, is documentation: the goal isn't to avoid documentation, but to document just the right things in just the right amount Process? This all works within the frameworks of Scrum, XP, and other Agile approaches

Resource added for the Business Analyst program 101021?.

Carefully researched over ten years and eagerly anticipated by the agile community, *Crystal Clear: A Human-Powered Methodology for Small Teams* is a lucid and practical introduction to running a successful agile project in your organization. Each chapter illuminates a different important aspect of orchestrating agile projects. Highlights include Attention to the essential human and communication aspects of successful projects Case studies, examples, principles, strategies, techniques, and guiding properties Samples of work products from real-world projects instead of blank templates and toy problems Top strategies used by software teams that excel in delivering quality code in a timely fashion Detailed introduction to emerging best-practice techniques, such as Blitz Planning, Project 360°, and the essential Reflection Workshop Question-and-answer with the author about how he arrived at these recommendations, including where they fit with CMMI, ISO, RUP, XP, and other methodologies A detailed case study, including an ISO auditor's analysis of the project Perhaps the most important contribution this book offers is the Seven Properties of Successful Projects. The author has studied successful agile projects and identified common traits they share. These properties lead your project to success; conversely, their absence endangers your project.

Use case analysis is a methodology for defining the outward features of a software system from the user's point of view. Applying *Use Cases, Second Edition*, offers a clear and practical introduction to this cutting-edge software development technique. Using numerous realistic examples and a detailed case study, you are guided through the application of use case analysis in the development of software systems. This new edition has been updated and expanded to reflect the Unified Modeling Language (UML) version 1.3. It also includes more complex and precise examples, descriptions of the pros and cons of various use case documentation techniques, and discussions on how other modeling approaches relate to use cases. *Applying Use Cases, Second Edition*, walks you through the software development process, demonstrating how use cases apply to project inception, requirements and risk analysis, system architecture, scheduling, review and testing, and documentation. Key topics include: Identifying use cases and describing actors Writing the flow of events, including basic and alternative paths Reviewing use cases for completeness and correctness Diagramming use cases with activity diagrams and sequence diagrams Incorporating user interface description and data description documents Testing architectural patterns and designs with use cases Applying use cases to project planning, prototyping, and estimating Identifying and diagramming analysis classes from use cases Applying use cases to user guides, test cases, and training material An entire section of the book is devoted to identifying common mistakes and describing their solutions. Also featured is a handy collection of documentation templates and an abbreviated guide to UML notation. You will come away from this book with a solid understanding of use cases, along with the skills you need to put use case analysis to work.

*Right Your Software and Transform Your Career* Righting Software presents the proven, structured, and highly engineered approach to software design that renowned architect Juval Löwy has practiced and taught around the world. Although companies of every kind have successfully implemented his original design ideas across hundreds of systems, these insights have never before appeared in print. Based on first principles in software engineering and a comprehensive set of matching tools and techniques, Löwy's methodology integrates system design and project design. First, he describes the primary area where many software architects fail and shows how to decompose a system into smaller building blocks or services, based on volatility. Next, he shows how to flow an effective project design from the system design; how to accurately calculate the project duration, cost, and risk; and how to devise multiple execution options. The method and principles in *Righting Software* apply regardless of your project and company size, technology, platform, or industry. Löwy starts the reader on a journey that addresses the critical challenges of software development today by righting software systems and projects as well as careers—and possibly the software industry as a whole. Software professionals, architects, project leads, or managers at any stage of their career will benefit greatly from this book, which provides guidance and knowledge that would otherwise take decades and many projects to acquire. Register your book for convenient access to downloads, updates, and/or corrections as they become available. See inside book

for details.

Extending the scenario method beyond interface design, this important book shows developers how to design more effective systems by soliciting, analyzing, and elaborating stories from end-users Contributions from leading industry consultants and opinion-makers present a range of scenario techniques, from the light, sketchy, and agile to the careful and systematic Includes real-world case studies from Philips, DaimlerChrysler, and Nokia, and covers systems ranging from custom software to embedded hardware-software systems

"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.

In the current fast-paced and constantly changing business environment, it is more important than ever for organizations to be agile, monitor business performance, and meet with increasingly stringent compliance requirements. Written by pioneering consultants and bestselling authors with track records of international success, *The Decision Model: A Business Logic Framework Linking Business and Technology* provides a platform for rethinking how to view, design, execute, and govern business logic. The book explains how to implement the Decision Model, a stable, rigorous model of core business logic that informs current and emerging technology. The authors supply a strong theoretical foundation, while succinctly defining the path needed to incorporate agile and iterative techniques for developing a model that will be the cornerstone for continual growth. Because the book introduces a new model with tentacles in many disciplines, it is divided into three sections: Section 1: A Complete overview of the Decision Model and its place in the business and technology world Section 2: A Detailed treatment of the foundation of the Decision Model and a formal definition of the Model Section 3: Specialized topics of interest on the Decision Model, including both business and technical issues The Decision Model provides a framework for organizing business rules into well-formed decision-based structures that are predictable, stable, maintainable, and normalized. More than this, the Decision Model directly correlates business logic to the business drivers behind it, allowing it to be used as a lever for meeting changing business objectives and marketplace demands. This book not only defines the Decision Model and but also demonstrates how it can be used to organize decision structures for maximum stability, agility, and technology independence and provide input into automation design.

This guide will help readers learn how to employ the significant power of use cases to their software development efforts. It provides a practical methodology, presenting key use case concepts.

For those considering Extreme Programming, this book provides no-nonsense advice on agile planning, development, delivery, and management taken from the authors' many years of experience. While plenty of books address the what and why of agile development, very few offer the information users can apply directly.

"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. Printed in full color. Faced with a software project of epic proportions? Tired of over-committing and under-delivering? Enter the dojo of the agile samurai, where agile expert Jonathan Rasmusson shows you how to kick-start, execute, and deliver your agile projects. Combining cutting-edge tools with classic agile practices, *The Agile Samurai* gives you everything you need to deliver something of value every week and make rolling your software into production a non-event. Get ready to kick some software project butt. By learning the ways of the agile samurai you will discover: how to create plans and schedules your customer and your team can believe in what characteristics make a good agile team and how to form your own how to gather requirements in a fraction of the time using agile user stories what to do when you discover your schedule is wrong, and how to look like a pro correcting it how to execute fiercely by leveraging the power of agile software engineering practices By the end of this book you will know everything you need to set up, execute, and successfully deliver agile projects, and have fun along the way. If you're a project lead, this book gives you the tools to set up and lead your agile project from start to finish. If you are an analyst, programmer, tester, usability designer, or project manager, this book gives you the insight and foundation necessary to become a valuable agile team member. *The Agile Samurai* slices away the fluff and theory that make other books less-than-agile. It's packed with best practices, war stories, plenty of humor and hands-on tutorial exercises that will get you doing the right things, the right way. This book will make a difference.

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 on 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."

**Practical Software Architecture Solutions from the Legendary Robert C. Martin ("Uncle Bob")** By applying universal rules of software architecture, you can dramatically improve developer productivity throughout the life of any software system. Now, building upon the success of his best-selling books *Clean Code* and *The Clean Coder*, legendary software craftsman Robert C. Martin ("Uncle Bob") reveals those rules and helps you apply them. Martin's *Clean Architecture* doesn't merely present options. Drawing on over a half-century of experience in software environments of every imaginable type, Martin tells you what choices to make and why they are critical to your success. As you've come to expect from Uncle Bob, this book is packed with direct, no-nonsense solutions for the real challenges you'll face—the ones that will make or break your projects. Learn what software architects need to achieve—and core disciplines and practices for achieving it. Master essential software design principles for addressing function, component separation, and data management. See how programming paradigms impose discipline by restricting what developers can do. Understand what's critically important and what's merely a "detail." Implement optimal, high-level structures for web, database, thick-client, console, and embedded applications. Define appropriate boundaries and layers, and organize components and services. See why designs and architectures go wrong, and how to prevent (or fix) these failures. *Clean Architecture* is essential reading for every current or aspiring software architect, systems analyst, system designer, and software manager—and for every programmer who must execute someone else's designs. Register your product for convenient access to downloads, updates, and/or corrections as they become available.

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