

Software Requirements 3 Ebook Karl E Wiegers

If you ally compulsion such a referred **Software Requirements 3 Ebook Karl E Wiegers** books that will have enough money you worth, get the entirely best seller from us currently from several preferred authors. If you want to humorous books, lots of novels, tale, jokes, and more fictions collections are next launched, from best seller to one of the most current released.

You may not be perplexed to enjoy every ebook collections Software Requirements 3 Ebook Karl E Wiegers that we will very offer. It is not something like the costs. Its more or less what you need currently. This Software Requirements 3 Ebook Karl E Wiegers , as one of the most vigorous sellers here will agreed be accompanied by the best options to review.

Software Estimation - Steve McConnell 2006-02-22

Often referred to as the “black art” because of its complexity and uncertainty, software estimation is not as difficult or puzzling as people think. In fact, generating accurate estimates is straightforward—once you understand the art of creating them. In his highly anticipated book, acclaimed author Steve McConnell unravels the mystery to successful software estimation—distilling academic information and real-world experience into a practical guide for working software professionals. Instead of arcane treatises and rigid modeling techniques, this guide highlights a proven set of procedures, understandable formulas, and heuristics that individuals and development teams can apply to their projects to help achieve estimation proficiency. Discover how to: Estimate schedule and cost—or estimate the functionality that can be delivered within a given time frame Avoid common software estimation mistakes Learn estimation techniques for you, your team, and your organization * Estimate specific project activities—including development, management, and defect correction Apply estimation approaches to any type of project—small or large, agile or traditional Navigate the shark-infested political waters that surround project estimates When many corporate software projects are failing, McConnell shows you what works for successful software estimation.

Business Analysis Methodology Book - Emrah Yayici 2015-07-21
Resource added for the Business Analyst program 101021.

The Business Analyst's Handbook - Howard Podeswa 2009

One of the objectives of this book is to incorporate best practices and standards in to the BA role. While a number of standards and guidelines, such as Business Process Modeling Notation (BPMN), have been incorporated, particular emphasis has been placed on the Business Analysis Body of Knowledge (BABOK), the Information Technology Infrastructure Library (ITIL), and the Unified Modeling Language (UML).

Programming Microsoft ASP.NET 4 - Dino Esposito 2011-02-15
Completely reengineered for ASP.NET 4—this definitive guide deftly illuminates the core architecture and programming features of ASP.NET 4 in a single, pragmatic volume. Web development expert Dino Esposito provides essential, architectural-level guidance, along with the in-depth technical insights designed to take you—and your solutions—to the next level. The book covers Dynamic Data, AJAX, Microsoft Silverlight, ASP.NET MVC, Web forms, LINQ, and security strategies—and features extensive code samples in Microsoft Visual C#(R) 2010.

How We Test Software at Microsoft - Alan Page 2008-12-10

It may surprise you to learn that Microsoft employs as many software testers as developers. Less surprising is the emphasis the company

places on the testing discipline—and its role in managing quality across a diverse, 150+ product portfolio. This book—written by three of Microsoft’s most prominent test professionals—shares the best practices, tools, and systems used by the company’s 9,000-strong corps of testers. Learn how your colleagues at Microsoft design and manage testing, their approach to training and career development, and what challenges they see ahead. Most important, you’ll get practical insights you can apply for better results in your organization. Discover how to: Design effective tests and run them throughout the product lifecycle Minimize cost and risk with functional tests, and know when to apply structural techniques Measure code complexity to identify bugs and potential maintenance issues Use models to generate test cases, surface unexpected application behavior, and manage risk Know when to employ automated tests, design them for long-term use, and plug into an automation infrastructure Review the hallmarks of great testers—and the tools they use to run tests, probe systems, and track progress efficiently Explore the challenges of testing services vs. shrink-wrapped software

Software Requirement Patterns - Stephen Withall 2007-06-13

Learn proven, real-world techniques for specifying software requirements with this practical reference. It details 30 requirement “patterns” offering realistic examples for situation-specific guidance for building effective software requirements. Each pattern explains what a requirement needs to convey, offers potential questions to ask, points out potential pitfalls, suggests extra requirements, and other advice. This book also provides guidance on how to write other kinds of information that belong in a requirements specification, such as assumptions, a glossary, and document history and references, and how to structure a requirements specification. A disturbing proportion of computer systems are judged to be inadequate; many are not even delivered; more are late or over budget. Studies consistently show one of the single biggest causes is poorly defined requirements: not properly defining what a system is for and what it’s supposed to do. Even a modest contribution to improving requirements offers the prospect of saving businesses part of a large sum of wasted investment. This guide emphasizes this important

requirement need—determining what a software system needs to do before spending time on development. Expertly written, this book details solutions that have worked in the past, with guidance for modifying patterns to fit individual needs—giving developers the valuable advice they need for building effective software requirements

Requirements Engineering for Software and Systems, Second Edition - Phillip A. Laplante 2013-10-17

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. In addition to new exercises and updated references in every chapter, 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.

Algorithms for Image Processing and Computer Vision - J. R. Parker 1997

A cookbook of the hottest new algorithms and cutting-edge techniques in image processing and computer vision This amazing book/CD package puts the power of all the hottest new image processing techniques and algorithms in your hands. Based on J. R. Parker's exhaustive survey of Internet newsgroups worldwide, Algorithms for Image Processing and Computer Vision answers the most frequently asked questions with practical solutions. Parker uses dozens of real-life examples taken from fields such as robotics, space exploration, forensic analysis, cartography, and medical diagnostics, to clearly describe the latest techniques for morphing, advanced edge detection, wavelets, texture classification, image restoration, symbol recognition, and genetic algorithms, to name just a few. And, best of all, he implements each method covered in C and provides all the source code on the CD. For the first time, you're rescued from the hours of mind-numbing mathematical calculations it would ordinarily take to program these state-of-the-art image processing capabilities into software. At last, nonmathematicians get all the shortcuts they need for sophisticated image recognition and processing applications. On the CD-ROM you'll find: * Complete code for examples in the book * A gallery of images illustrating the results of advanced techniques * A free GNU compiler that lets you run source code on any platform * A system for restoring damaged or blurred images * A genetic algorithms package

Visual Models for Software Requirements - Anthony Chen 2012-07-15

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

Software Quality Assurance - Claude Y. Laporte 2018-01-04

This book introduces Software Quality Assurance (SQA) and provides an overview of standards used to implement SQA. It defines ways to assess the effectiveness of how one approaches software quality across key industry sectors such as telecommunications, transport, defense, and aerospace. Includes supplementary website with an instructor's guide and solutions Applies IEEE software standards as well as the Capability Maturity Model Integration for Development (CMMI) Illustrates the application of software quality assurance practices through the use of practical examples, quotes from experts, and tips from the authors

Digital Logic and Microprocessor Design with Interfacing - Enoch O. Hwang 2016-12-05

DIGITAL LOGIC AND MICROPROCESSOR DESIGN WITH INTERFACING, 2E provides a solid foundation for designing digital logic circuits. This unique approach combines the use of logic principles and the building of individual components to create data paths and control units so readers can build dedicated custom microprocessors and general-purpose microprocessors. Readers design simple microprocessors from the ground up, implement them in real hardware, and interface them to actual devices. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Creating a Software Engineering Culture - Karl Wieggers 2013-07-15

This is the digital version of the printed book (Copyright © 1996). Written in a remarkably clear style, *Creating a Software Engineering Culture* presents a comprehensive approach to improving the quality and effectiveness of the software development process. In twenty chapters

spread over six parts, Wiegers promotes the tactical changes required to support process improvement and high-quality software development. Throughout the text, Wiegers identifies scores of culture builders and culture killers, and he offers a wealth of references to resources for the software engineer, including seminars, conferences, publications, videos, and on-line information. With case studies on process improvement and software metrics programs and an entire part on action planning (called "What to Do on Monday"), this practical book guides the reader in applying the concepts to real life. Topics include software culture concepts, team behaviors, the five dimensions of a software project, recognizing achievements, optimizing customer involvement, the project champion model, tools for sharing the vision, requirements traceability matrices, the capability maturity model, action planning, testing, inspections, metrics-based project estimation, the cost of quality, and much more! Principles from Part 1 Never let your boss or your customer talk you into doing a bad job. People need to feel the work they do is appreciated. Ongoing education is every team member's responsibility. Customer involvement is the most critical factor in software quality. Your greatest challenge is sharing the vision of the final product with the customer. Continual improvement of your software development process is both possible and essential. Written software development procedures can help build a shared culture of best practices. Quality is the top priority; long-term productivity is a natural consequence of high quality. Strive to have a peer, rather than a customer, find a defect. A key to software quality is to iterate many times on all development steps except coding: Do this once. Managing bug reports and change requests is essential to controlling quality and maintenance. If you measure what you do, you can learn to do it better. You can't change everything at once. Identify those changes that will yield the greatest benefits, and begin to implement them next Monday. Do what makes sense; don't resort to dogma.

Software Requirements - Karl Eugene Wiegers 2013

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.

Microsoft Visual Basic 2010 Step by Step - Michael Halvorson
2010-05-12

Your hands-on, step-by-step guide to learning Visual Basic 2010. Teach yourself the essential tools and techniques for Visual Basic 2010-one step at a time. No matter what your skill level, you'll find the practical guidance and examples you need to start building professional applications for Windows and the Web. Discover how to: Work in the Microsoft Visual Studio 2010 Integrated Development Environment (IDE) Master essential techniques-from managing data and variables to using inheritance and dialog boxes Create professional-looking Uis; add visual effects and print support Build compelling Web features with the Visual

Web Developer tool Use Microsoft ADO.NET and advanced data presentation controls Debug your programs and handle run-time errors Use new features, such as Query Builder, and Microsoft .NET Framework For customers who purchase an ebook version of this title, instructions for downloading the CD files can be found in the ebook.

Design Patterns Explained - Alan Shalloway 2004-10-12

"One of the great things about the book is the way the authors explain concepts very simply using analogies rather than programming examples—this has been very inspiring for a product I'm working on: an audio-only introduction to OOP and software development." -Bruce Eckel
"...I would expect that readers with a basic understanding of object-oriented programming and design would find this book useful, before approaching design patterns completely. Design Patterns Explained complements the existing design patterns texts and may perform a very useful role, fitting between introductory texts such as UML Distilled and the more advanced patterns books." -James Noble Leverage the quality and productivity benefits of patterns—without the complexity! Design Patterns Explained, Second Edition is the field's simplest, clearest, most practical introduction to patterns. Using dozens of updated Java examples, it shows programmers and architects exactly how to use patterns to design, develop, and deliver software far more effectively. You'll start with a complete overview of the fundamental principles of patterns, and the role of object-oriented analysis and design in contemporary software development. Then, using easy-to-understand sample code, Alan Shalloway and James Trott illuminate dozens of today's most useful patterns: their underlying concepts, advantages, tradeoffs, implementation techniques, and pitfalls to avoid. Many patterns are accompanied by UML diagrams. Building on their best-selling First Edition, Shalloway and Trott have thoroughly updated this book to reflect new software design trends, patterns, and implementation techniques. Reflecting extensive reader feedback, they have deepened and clarified coverage throughout, and reorganized content for even greater ease of understanding. New and revamped coverage in this edition includes Better ways to start "thinking in patterns" How design

patterns can facilitate agile development using eXtreme Programming and other methods How to use commonality and variability analysis to design application architectures The key role of testing into a patterns-driven development process How to use factories to instantiate and manage objects more effectively The Object-Pool Pattern—a new pattern not identified by the "Gang of Four" New study/practice questions at the end of every chapter Gentle yet thorough, this book assumes no patterns experience whatsoever. It's the ideal "first book" on patterns, and a perfect complement to Gamma's classic Design Patterns. If you're a programmer or architect who wants the clearest possible understanding of design patterns—or if you've struggled to make them work for you—read this book.

The Requirements Engineering Handbook - Ralph Rowland Young 2004
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.

User Stories Applied - Mike Cohn 2004-03-01

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.

Requirements by Collaboration - Ellen Gottesdiener 2002

"I spend much time helping organizations capture requirements and even more time helping them recover from not capturing requirements. Many of them have gone through some motions regarding requirements as if they were sleepworking. It's time to wake up and do it right-and this book is going to be their alarm clock." - Jerry Weinberg, author of numerous books on productivity enhancement "In today's complex, fast-paced software development environment, collaboration-the intense peer-to-peer conversations that result in products, decisions, and knowledge sharing-is absolutely essential to success. But all too often, attempts to collaborate degenerate into agonizing meetings or ineffectual bull sessions. Ellen's wonderful book will help you bridge the gap-turning the agony of meetings into the ecstasy of effective collaboration." - Jim Highsmith, a pioneer in adaptive software development methods "Requirements by Collaboration presents a wealth of practical tools and techniques for facilitating requirements development workshops. It is suitable-no, essential reading-for requirements workshop facilitators. It will help both technical people and customer representatives participate in these critical contributions to software success." - Karl Wiegers, Principal Consultant, Process Impact,

author of Software Requirements "The need for this particular book, at this particular time, is crystal clear. We have entered a new age where software development must be viewed as a form of business problem solving. That means direct user participation in developing 'requirements, ' or more accurately, in jointly working the business problem. That, in turn, means facilitated sessions. In this book, Ellen Gottesdiener provides a wealth of practical ideas for ensuring that you have exactly the right stuff for this all-important area of professional art." - Ronald G. Ross, Principal, Business Rule Solutions, LLC, Executive Editor, www.BRCommunity.com "Gottesdiener's years of software development experience coupled with her straight-forward writing style make her book a perfect choice for either a senior developer or a midlevel project manager. In addition to her technical experience, her knowledge of group dynamics balance the book by educating the reader on how to manage conflict and personality differences within a requirements team-something that is missing from most requirements textbooks...It is a required 'handbook' that will be referred to again and again." - Kay Christian, ebusiness Consultant, Conifer, Colorado "Requirements by Collaboration is a 'must read' for any system stakeholder. End users and system analysts will learn the significant value they can add to the systems development process. Management will learn the tremendous return they may receive from making a modest time/people investment in facilitated sessions. Facilitators will discover ways to glean an amazing amount of high-quality information in a relatively brief time." - Russ Schwartz, Computer System Quality Consultant, Global Biotechnology Firm "In addition to showing how requirements are identified, evaluated, and confirmed, Ellen provides important guidance based on her own real-world experience for creating and managing the workshop environment in which requirements are generated. This book is an engaging and invaluable resource for project teams and sponsors, both business and IT, who are committed to achieving results in the most productive manner possible." - Hal Thilmony, Senior Manager, Business Process Improvement (Finance), CiscoSystems, Inc. "Project managers should read this book for

assistance with planning the requirements process. Experienced facilitators will enrich their knowledge. New facilitators can use this book to get them up to speed and become more effective in less time." - Rob Stroober, Competence Development Manager and Project Manager, Deloitte & Touche Consultdata, The Netherlands "While many books discuss the details of software requirement artifacts (for example, use cases), Ellen's new book zeros in on effective workshop techniques and tools used to gather the content of these artifacts. As a pioneer in requirements workshops, she shares her real-life experiences in a comprehensive and easy-to-read book with many helpful examples and diagrams." - Bill Bird, Aera Energy LLC "Requirements by Collaboration is absolutely full of guidance on the most effective ways to use workshops in requirements capture. This book will help workshop owners and facilitators to determine and gain agreement on a sound set of requirements, which will form a solid foundation for the development work that is to follow." - Jennifer Stapleton, Software Process Consultant and author of DSDM: The Method in Practice "This book provides an array of techniques within a clear, structured process, along with excellent examples of how and when to use them. It's an excellent, practical, and really useful handbook written by a very experienced author!" - Jean-Anne Kirk, Director DSDM Consortium and IAF Professional Development "Ellen has written a detailed, comprehensive, and practical handbook for facilitating groups in gathering requirements. The processes she outlines give the facilitator tools to bring together very different perspectives from stakeholders elegantly and with practical, useable results." - Jo Nelson, Principal, ICA Associates, Inc., Chair, IAF (2001-2002) Requirements by Collaboration: Workshops for Defining Needs focuses on the human side of software development--how well we work with our customers and teammates. Experience shows that the quality and degree of participation, communication, respect, and trust among all the stakeholders in a project can strongly influence its success or failure. Ellen Gottesdiener points out that such qualities are especially important when defining user requirements and she shows in this book exactly what to do about that fact. Gottesdiener shows

specifically how to plan and conduct requirements workshops. These carefully organized and facilitated meetings bring business managers, technical staff, customers, and users into a setting where, together, they can discover, evolve, validate, verify, and agree upon their product needs. Not only are their requirements more effectively defined through this collaboration, but the foundation is laid for good teamwork throughout the entire project. Other books focus on how to build the product right. Requirements by Collaboration focuses instead on what must come first--the right product to build.

Code Complete - Steve McConnell 2004-06-09

Widely considered one of the best practical guides to programming, Steve McConnell's original CODE COMPLETE has been helping developers write better software for more than a decade. Now this classic book has been fully updated and revised with leading-edge practices—and hundreds of new code samples—illustrating the art and science of software construction. Capturing the body of knowledge available from research, academia, and everyday commercial practice, McConnell synthesizes the most effective techniques and must-know principles into clear, pragmatic guidance. No matter what your experience level, development environment, or project size, this book will inform and stimulate your thinking—and help you build the highest quality code. Discover the timeless techniques and strategies that help you: Design for minimum complexity and maximum creativity Reap the benefits of collaborative development Apply defensive programming techniques to reduce and flush out errors Exploit opportunities to refactor—or evolve—code, and do it safely Use construction practices that are right-weight for your project Debug problems quickly and effectively Resolve critical construction issues early and correctly Build quality into the beginning, middle, and end of your project

Business Rules and Information Systems - Tony Morgan 2002-03-18

Information systems often fail because their requirements are poorly defined. This book shows IT professionals how to specify more precisely and more effectively what their systems need to do. The key lies in the discovery and application of what are called business rules. A business

rule is a compact and simple statement that represents some important aspect of a business. By capturing the rules for your business—the logic that governs its operation—you will gain the ability to create systems fully aligned with your business needs. In this book, Tony Morgan provides a thorough introduction to business rules, as well as a practical framework for integrating them into information systems. He shows you how to identify and express business rules, offers practical strategies for their use, and explains the key elements of logic that underpin their application. Topics covered include: Understanding the role of business rules and models in information systems development Using models to structure and manage business activities, including e-commerce Defining and discovering business rules Controlling business rule quality Fitting business rules into varied technical architectures Implementing business rules using available technology Whether you are an analyst, designer, developer, or technical manager, the in-depth information and practical perspective in this valuable resource will guide you in your efforts to build rule-centered information systems that fully support the goals of your organization.

Software Project Survival Guide - Steve McConnell 1998

Looks at a successful software project and provides details for software development for clients using object-oriented design and programming.

Writing Effective Use Cases - Alistair Cockburn 2001

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.

Systems Analysis and Design in a Changing World - John W. Satzinger 2015-02-01

Refined and streamlined, SYSTEMS ANALYSIS AND DESIGN IN A CHANGING WORLD, 7E helps students develop the conceptual, technical, and managerial foundations for systems analysis design and implementation as well as project management principles for systems development. Using case driven techniques, the succinct 14-chapter text focuses on content that is key for success in today's market. The authors' highly effective presentation teaches both traditional (structured) and

object-oriented (OO) approaches to systems analysis and design. The book highlights use cases, use diagrams, and use case descriptions required for a modeling approach, while demonstrating their application to traditional, web development, object-oriented, and service-oriented architecture approaches. The Seventh Edition's refined sequence of topics makes it easier to read and understand than ever. Regrouped analysis and design chapters provide more flexibility in course organization. Additionally, the text's running cases have been completely updated and now include a stronger focus on connectivity in applications. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Five Core Metrics - Lawrence Putnam 2013-07-18

This is the digital version of the printed book (Copyright © 2003). To succeed in the software industry, managers need to cultivate a reliable development process. By measuring what teams have achieved on previous projects, managers can more accurately set goals, make bids, and ensure the successful completion of new projects. Acclaimed long-time collaborators Lawrence H. Putnam and Ware Myers present simple but powerful measurement techniques to help software managers allocate limited resources and track project progress. Drawing new findings from an extensive database of software project metrics, the authors demonstrate how readers can control projects with just Five Core Metrics -Time, Effort, Size, Reliability, and Process Productivity. With these metrics, managers can adjust ongoing projects to changing conditions—surprises that would otherwise cause project failure.

The Technical and Social History of Software Engineering - Capers Jones 2014

Pioneering software engineer Capers Jones has written the first and only definitive history of the entire software engineering industry. Drawing on his extraordinary vantage point as a leading practitioner for several decades, Jones reviews the entire history of IT and software engineering, assesses its impact on society, and previews its future. One decade at a time, Jones assesses emerging trends and companies, winners and

losers, new technologies, methods, tools, languages, productivity/quality benchmarks, challenges, risks, professional societies, and more. He quantifies both beneficial and harmful software inventions; accurately estimates the size of both the US and global software industries; and takes on "unexplained mysteries" such as why and how programming languages gain and lose popularity.

Software Development Pearls - Karl Wiegiers 2021-10

Drawing on 20+ years helping software teams succeed in nearly 150 organizations, Karl Wiegiers presents 60 concise lessons and practical recommendations students can apply to all kinds of projects, regardless of application domain, technology, development lifecycle, or platform infrastructure. Embodying both wisdom for deeper understanding and guidance for practical use, this book represent an invaluable complement to the technical nuts and bolts software developers usually study.

Software Development Pearls covers multiple crucial domains of project success: requirements, design, project management, culture and teamwork, quality, and process improvement. Each chapter suggests several first steps and next steps to help you begin immediately applying the author's hard-won lessons--and writing code that is more successful in every way that matters.

Adaptive Code - Gary McLean Hall 2017-04-18

Write code that can adapt to changes. By applying this book's principles, you can create code that accommodates new requirements and unforeseen scenarios without significant rewrites. Gary McLean Hall describes Agile best practices, principles, and patterns for designing and writing code that can evolve more quickly and easily, with fewer errors, because it doesn't impede change. Now revised, updated, and expanded, *Adaptive Code, Second Edition* adds indispensable practical insights on Kanban, dependency inversion, and creating reusable abstractions.

Drawing on over a decade of Agile consulting and development experience, McLean Hall has updated his best-seller with deeper coverage of unit testing, refactoring, pure dependency injection, and more. Master powerful new ways to:

- Write code that enables and complements Scrum, Kanban, or any other Agile framework
- Develop

code that can survive major changes in requirements

- Plan for adaptability by using dependencies, layering, interfaces, and design patterns
- Perform unit testing and refactoring in tandem, gaining more value from both
- Use the "golden master" technique to make legacy code adaptive
- Build SOLID code with single-responsibility, open/closed, and Liskov substitution principles
- Create smaller interfaces to support more-diverse client and architectural needs
- Leverage dependency injection best practices to improve code adaptability
- Apply dependency inversion with the Stairway pattern, and avoid related anti-patterns

About You This book is for programmers of all skill levels seeking more-practical insight into design patterns, SOLID principles, unit testing, refactoring, and related topics. Most readers will have programmed in C#, Java, C++, or similar object-oriented languages, and will be familiar with core procedural programming techniques.

Agile Estimating and Planning - Mike Cohn 2005-11-01

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.

Systematic Software Testing - Rick David Craig 2002

Gain an in-depth understanding of software testing management and process issues that are critical for delivering high-quality software on time and within budget. Written by leading experts in the field, this book offers those involved in building and maintaining complex, mission-critical software systems a flexible, risk-based process to improve their software testing capabilities. Whether your organization currently has a well-defined testing process or almost no process, *Systematic Software Testing* provides unique insights into better ways to test your software. This book describes how to use a preventive method of testing, which parallels the software development lifecycle, and explains how to create and subsequently use test plans, test design, and test metrics. Detailed instructions are presented to help you decide what to test, how to prioritize tests, and when testing is complete. Learn how to conduct risk analysis and measure test effectiveness to maximize the efficiency of your testing efforts. Because organizational structure, the right people, and management are keys to better software testing, *Systematic Software Testing* explains these issues with the insight of the authors' more than 25 years of experience."

Just Enough Requirements Management - Alan Davis 2013-07-18

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*.

Agile Software Requirements - Dean Leffingwell 2010-12-27

"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. *Managing Systems and IT Projects* - Frank Tsui 2011-08-24

This book is designed for software engineering students and project management professional in the IT and software industry. It focuses on the four phases of management -- planning, organizing, monitoring, and adjusting (POMA) -- and tailors to systems and applications on software projects. The tasks and techniques utilized in each of the POMA management phases are discussed with specific software engineering and IT related examples. Drawing from years of experience in the industry, the author presents material within a framework of real-world examples and exercises that help readers apply new concepts to everyday situations.

[Mastering the Requirements Process](#) - Suzanne Robertson 2013

"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.

Discovering Requirements - Ian F. Alexander 2009-02-11

"This book is not only of practical value. It's also a lot of fun to read."

Michael Jackson, The Open University. Do you need to know how to create good requirements? *Discovering Requirements* offers a set of simple, robust, and effective cognitive tools for building requirements. Using worked examples throughout the text, it shows you how to develop an understanding of any problem, leading to questions such as: What are you trying to achieve? Who is involved, and how? What do those people want? Do they agree? How do you envisage this working? What could go wrong? Why are you making these decisions? What are you assuming?

The established author team of Ian Alexander and Ljerka Beus-Dukic

answer these and related questions, using a set of complementary techniques, including stakeholder analysis, goal modelling, context modelling, storytelling and scenario modelling, identifying risks and threats, describing rationales, defining terms in a project dictionary, and prioritizing. This easy to read guide is full of carefully-checked tips and tricks. Illustrated with worked examples, checklists, summaries, keywords and exercises, this book will encourage you to move closer to the real problems you're trying to solve. Guest boxes from other experts give you additional hints for your projects. Invaluable for anyone specifying requirements including IT practitioners, engineers, developers, business analysts, test engineers, configuration managers, quality engineers and project managers. A practical sourcebook for lecturers as well as students studying software engineering who want to learn about requirements work in industry. Once you've read this book you will be ready to create good requirements!

Practical Project Initiation - Karl Wieggers 2007-08-08

Zero in on key project-initiation tasks—and build a solid foundation for successful software development. In this concise guide, critically-acclaimed author Karl E. Wieggers fills a void in project management literature by focusing on the activities that are essential—but often overlooked—for launching any project. Drawing on his extensive experience, Karl shares lessons learned, proven practices, and tools for getting your project off to the right start—and steering it to ultimate success. Lay a foundation for project success—discover how to: Effectively charter a project Define meaningful criteria for project success and product releases Negotiate achievable commitments for project teams and stakeholders Identify and document potential barriers to success—and manage project risks Apply the Wideband Delphi method for more accurate estimation Measure project performance and avoid common metrics traps Systematically apply lessons learned to future projects Companion Web site includes: Worksheets from inside the book Project document templates Resources for project initiation and process improvement

Peer Reviews in Software - Karl Eugene Wieggers 2002

This practical introduction to peer reviews covers different methods of peer review, from the formal method of inspection to other less formal methods, and addresses the cultural and practical aspects of both.

The Art of Unit Testing - Roy Osherove 2013-11-24

Summary The Art of Unit Testing, Second Edition guides you step by step from writing your first simple tests to developing robust test sets that are maintainable, readable, and trustworthy. You'll master the foundational ideas and quickly move to high-value subjects like mocks, stubs, and isolation, including frameworks such as Moq, FakeItEasy, and Typemock Isolator. You'll explore test patterns and organization, working with legacy code, and even "untestable" code. Along the way, you'll learn about integration testing and techniques and tools for testing databases and other technologies. About this Book You know you should be unit testing, so why aren't you doing it? If you're new to unit testing, if you find unit testing tedious, or if you're just not getting enough payoff for the effort you put into it, keep reading. The Art of Unit Testing, Second Edition guides you step by step from writing your first simple unit tests to building complete test sets that are maintainable, readable, and trustworthy. You'll move quickly to more complicated subjects like mocks and stubs, while learning to use isolation (mocking) frameworks like Moq, FakeItEasy, and Typemock Isolator. You'll explore test patterns and organization, refactor code applications, and learn how to test "untestable" code. Along the way, you'll learn about integration testing and techniques for testing with databases. The examples in the book use C#, but will benefit anyone using a statically typed language such as Java or C++. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. What's Inside Create readable, maintainable, trustworthy tests Fakes, stubs, mock objects, and isolation (mocking) frameworks Simple dependency injection techniques Refactoring legacy code About the Author Roy Osherove has been coding for over 15 years, and he consults and trains teams worldwide on the gentle art of unit testing and test-driven development. His blog is at ArtOfUnitTesting.com. Table of Contents PART 1 GETTING STARTED The basics of unit testing A first unit test PART 2 CORE

TECHNIQUES Using stubs to break dependencies Interaction testing using mock objects Isolation (mocking) frameworks Digging deeper into isolation frameworks PART 3 THE TEST CODE Test hierarchies and organization The pillars of good unit tests PART 4 DESIGN AND PROCESS Integrating unit testing into the organization Working with legacy code Design and testability

The Dark Side of Software Engineering - Johann Rost 2011-03-23

Betrayal! Corruption! Software engineering? Industry experts Johann Rost and Robert L. Glass explore the seamy underbelly of software engineering in this timely report on and analysis of the prevalence of subversion, lying, hacking, and espionage on every level of software project management. Based on the authors' original research and augmented by frank discussion and insights from other well-respected figures, *The Dark Side of Software Engineering* goes where other management studies fear to tread -- a corporate environment where schedules are fabricated, trust is betrayed, millions of dollars are lost, and there is a serious need for the kind of corrective action that this book ultimately proposes.

Project Management ToolBox - Russ J. Martinelli 2016-01-05

Boost your performance with improved project management tactics Project Management ToolBox: Tools and Techniques for the Practicing Project Manager, Second Edition offers a succinct explanation of when, where, and how to use project management resources to enhance your work. With updated content that reflects key advances in the project management field, including planning, implementation, control, cost, and scheduling, this revised text offers added material that covers relevant topics, such as agility, change management, governance, reporting, and risk management. This comprehensive resource provides a contemporary set of tools, explaining each tool's purpose and intention, development, customization and variations, and benefits and disadvantages. Additionally, examples, tips, and milestone checks guide you through the application of these tools, helping you practically apply the information you learn. Effective project management can support a company in increasing market share, improving the quality of products, and

enhancing customer service. With so many aspects of project management changing as the business world continues to evolve, it is critical that you stay up to date on the latest topics in this field. Explore emerging topics within the world of project management, keeping up to date on the latest, most relevant subject areas Leverage templates, exercises, and PowerPoint presentations to enhance your project management skills Discuss tips, reporting, implementation, documentation, and other essentials of the project management field Consider how project management fits into various industries, including technology, construction, healthcare, and product development Project Management ToolBox: Tools and Techniques for the Practicing Project Manager, Second Edition is an essential resource for experienced project managers and project management students alike.

[Representation Learning for Natural Language Processing](#) - Zhiyuan Liu
2020-07-03

This open access book provides an overview of the recent advances in

representation learning theory, algorithms and applications for natural language processing (NLP). It is divided into three parts. Part I presents the representation learning techniques for multiple language entries, including words, phrases, sentences and documents. Part II then introduces the representation techniques for those objects that are closely related to NLP, including entity-based world knowledge, sememe-based linguistic knowledge, networks, and cross-modal entries. Lastly, Part III provides open resource tools for representation learning techniques, and discusses the remaining challenges and future research directions. The theories and algorithms of representation learning presented can also benefit other related domains such as machine learning, social network analysis, semantic Web, information retrieval, data mining and computational biology. This book is intended for advanced undergraduate and graduate students, post-doctoral fellows, researchers, lecturers, and industrial engineers, as well as anyone interested in representation learning and natural language processing.