Software Systems Architecture: Working With Stakeholders Using Viewpoints And Perspectives
Synopsis

Software Systems Architecture is a practitioner-oriented guide to designing and implementing effective architectures for information systems. It is both a readily accessible introduction to software architecture and an invaluable handbook of well-established best practices. It shows why the role of the architect is central to any successful information-systems development project, and, by presenting a set of architectural viewpoints and perspectives, provides specific direction for improving your own and your organization’s approach to software systems architecture. With this book you will learn how to Design an architecture that reflects and balances the different needs of its stakeholders Communicate the architecture to stakeholders and demonstrate that it has met their requirements Focus on architecturally significant aspects of design, including frequently overlooked areas such as performance, resilience, and location Use scenarios and patterns to drive the creation and validation of your architecture Document your architecture as a set of related views Use perspectives to ensure that your architecture exhibits important qualities such as performance, scalability, and security The architectural viewpoints and perspectives presented in the book also provide a valuable long-term reference source for new and experienced architects alike. Whether you are an aspiring or practicing software architect, you will find yourself referring repeatedly to the practical advice in this book throughout the lifecycle of your projects. A supporting Web site containing further information can be found at www.viewpoints-and-perspectives.info

Book Information

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Customer Reviews
I want to start by countering the negative review that is currently viewed as the most helpful here on . The reviewer did not like that the book did not seem to address most directly what would be needed by "project managers, team leads and most importantly developers." I'm going to suggest that the reviewer started reading the book with a preconceived notion of what a software architect is, and what software architecture is about. It's no surprise. I'm reading several books on software architecture; all of them confront and try to address what might be a common definition, given that there are so many ambiguous definitions throughout the world. The authors of this book make clear that ALL of the stakeholders in a software project must be appropriately addressed. That's a huge challenge! From business executives to analysts to even project managers, team leads, and developer, all of them must share a common understanding of the entire system and what will be changed. If the architect is primarily thinking about how to communicate with the development team, then that architect should have her title changed to development lead or chief engineer. It was by reading this book for the main purpose of understanding what a software architect really is responsible for, that I can now easily distinguish the software architect role from other roles. The responsibility is to everybody that has a material interest in the project. And how can one possibly communicate appropriately to people whose interest and technical acumen will range as wide as is possible throughout a business?

When it comes to the systems or software architecture, I subscribe to Tom Demarco's definition: "An architecture is a framework for the disciplined introduction of change." ( [... ] And while most of the job postings matching "architect" these days talk about the need for writing and testing code, there is a growing awareness in the industry that in order to build a resilient enterprise system an organization must look beyond design patterns and coding idioms. In addition to the technical challenges, building large enterprise system requires effort of many professionals during an extended period of time. This brings other non-technical risks into the picture. This is one of the better books covering many issues that comprise System Architecture discipline in the light of their personal experience. The authors introduce us to an approach for partitioning architecture using Viewpoints (behavioral characteristics, e.g. Functional, Information, Concurrency, Development, Deployment, Operational) and Perspectives (nonfunctional aspects, e.g. Security, Performance and Scalability, Availability and Resilience, Evolution). The first half of the book describes the discipline of Application Software Architecture, the second half contains two catalogs, one for Viewpoints and the other for Perspectives. Both catalogs describe concerns, artifacts (models), problems and pitfalls when focusing on a viewpoint or perspective. I would qualify this book as a companion and reference for a
beginner through intermediate level. It gives an excellent overview of what a system architect has to go through day in and day out to achieve success. The book contains a wealth of advice on what to pay and not pay attention to in any particular stage of the architectural development.

Some might look at my book collect and think I have hoarding issues. If I had to pick just one Software Architecture book to keep, this would be the one. This is the second edition of one of the best books written on software systems architecture. If you are in the software development industry, you should read this book. If you are a Software Architect, you must read this book. This book covers a vast amount of material but it ties it all together in a way that paints a complete picture of what software systems architecture is all about. The book starts out covering architecture fundamentals. There is a chapter on Software Architecture Concepts, Viewpoints and Views, Architectural Perspectives, and The Role of the Software Architect. It then presents a process for software architecture and explains all the elements involved with the process. This part of the book contains chapters on The Architecture Definition Process, Concerns, Principles and Decisions, Identifying and Engaging Stakeholders, Identifying and Using Scenarios, Using Styles and Patterns, Producing Architectural Models, and Evaluating the Architecture. Next is a viewpoint catalog. The part of the book goes into the details of the different viewpoints the authors recommend considering as part of your architectural analysis. The viewpoints include Context, Information, Functional, Concurrency, Information, Development, Deployment, and Operational. Each viewpoint is a separate chapter. This section ends with a chapter that shows how to achieve consistency across views. After the viewpoint catalog the authors present a perspective catalog. Perspectives ensure that quality properties that cross several views are accounted for and analyzed.

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