Guide to Reliable Distributed Systems: Building High-Assurance Applications and Cloud-Hosted Services (Texts in Computer Science)

Von Kenneth P Birman
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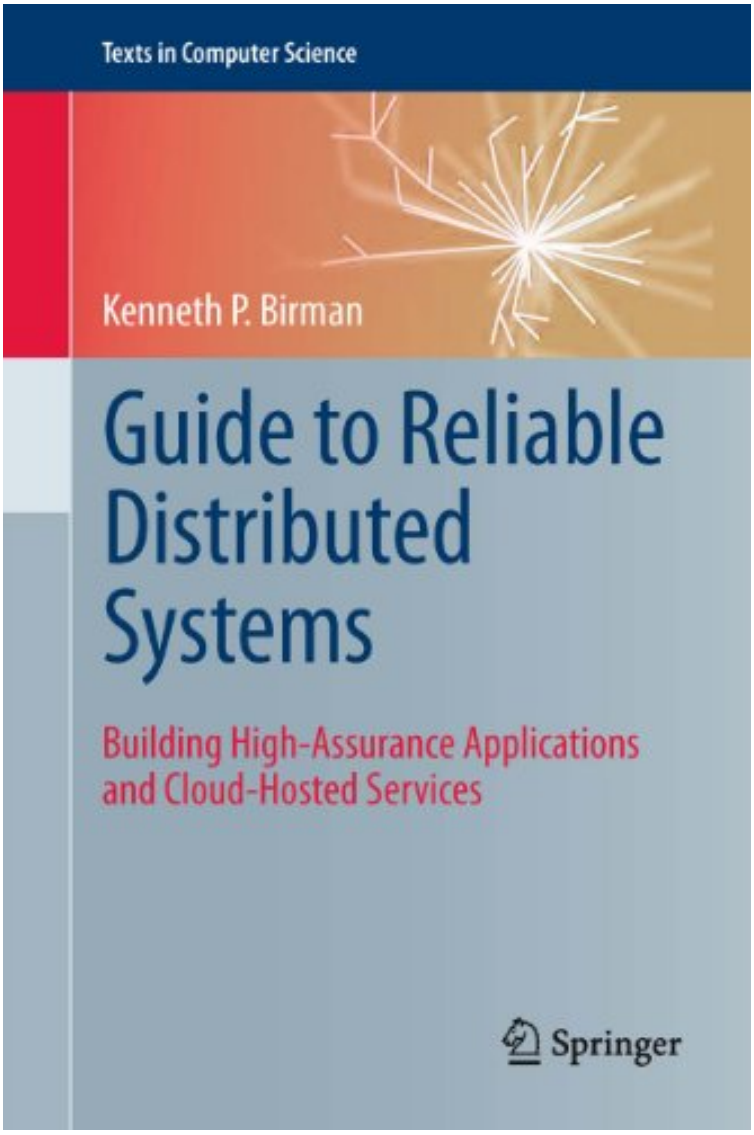

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Von Kenneth P Birman : Guide to Reliable Distributed Systems: Building High-Assurance Applications and Cloud-Hosted Services (Texts in Computer Science) before purchasing it in order to gage whether or not it would be worth my time, and all praised Guide to Reliable Distributed Systems: Building High-Assurance Applications and

Cloud-Hosted Services (Texts in Computer Science):

KundenrezensionenHilfreichste Kundenrezensionen0 von 0 Kunden fanden die folgende Rezension hilfreich. One of a kind, not perfect thoughVon Ulf WendelThe previous review has hit the nail on its head: Ken Birman has something to sell - virtual synchrony. The way it is sold is well worth reading. The author takes you on a yourney through 30 years of distributed system technologies with focus on the past decade of cloud computing. Based on requirements identified building blocks for group communication libraries and applications using such libraries are sketched and explained. A model is given to describe typical cloud computing which serves as a basis for rating the different approaches. Then, a deep dive into the best matching algorithms is done - some of which happen to be found in Isis2."Deep dive into algorithms" deserves explaining. The text is written in its very own style that you would not necessarily expect in a book from the Springer publishing house. Read other materials from the author and you may share my feeling of sitting in a lecture room and having a professor tell you a nice story, teaching you in an aside manner. Do not expect countless pages with of pseudo-code and mathematical proofs. Such things are kept to a minimum but you can easily look them up in the materials cited, if need be. The contrast in personal writing style is most obvious in the authors contribution to: Replication: Theory and Practice (Lecture Notes in Computer Science / Theoretical Computer Science and General Issues). It may be this very own style - which I like a lot albeit it can cause length - that may have caused the critique on the book being not a textbook but more a chronological bibliography.The amount of bibliography is what you can expect from this kind of book (and it almost pays for the book). The way the material is presented is unique and there is a bit of everything for many kinds of readers (students, application developers, researchers) in the three parts of the book. As a developer, I was seeking for insights in modern group communication libraries (for use in the Cloud). The book delivered to me as a novice. Until today I have not found any other book that can do the same.The book is a bit different, and I love it for being different.

KurzbeschreibungThis book describes the key concepts, principles and implementation options for creating high-assurance cloud computing solutions. The guide starts with a broad technical overview and basic introduction to cloud computing, looking at the overall architecture of the cloud, client systems, the modern Internet and cloud computing data centers. It then delves into the core challenges of showing how reliability and fault-tolerance can be abstracted, how the resulting questions can be solved, and how the solutions can be leveraged to create a wide range of practical cloud applications. The authors style is practical, and the guide should be readily understandable without any special background. Concrete examples are often drawn from real-world settings to illustrate key insights. Appendices show how the most important reliability models can be formalized, describe the API of the Isis2 platform, and offer more than 80 problems at varying levels of difficulty.KurzbeschreibungThis book describes the key concepts, principles and implementation options for creating high-assurance cloud computing solutions. The guide starts with a broad technical overview and basic introduction to cloud computing, looking at the overall architecture of the cloud, client systems, the modern Internet and cloud computing data centers. It then delves into the core challenges of showing how reliability and fault-tolerance can be abstracted, how the resulting questions can be solved, and how the solutions can be leveraged to create a wide range of practical cloud applications. The authors style is practical, and the guide should be readily understandable without any special background. Concrete examples are often drawn from real-world settings to illustrate key insights. Appendices show how the most important reliability models can be formalized, describe the API of the Isis2 platform, and offer more than 80 problems at varying levels of difficulty.BuchrckseiteThis Guide to Reliable Distributed Systems describes the key concepts, principles and implementation options for creating high-assurance cloud computing solutions. In combination with the Isis2 software platform, the text offers a practical path to success in this vital emerging area. Opening with a broad technical overview, the guide then delves into the core challenges of how reliability and fault-tolerance can be abstracted, how the resulting questions can be solved, and how the solutions can be leveraged to create a wide range of practical cloud applications. Readily understandable without any special background, the guide offers concrete examples drawn from real-world settings to illustrate key insights.Topics and features:Examines cloud computing reliability from the perspectives of the client and of the network, and describes the significant components of cloud data centersPresents a practical focus aimed at building "mission-critical" networked applications that keep working even when things go wrongCovers CORBA, Web Services, group communication, transactions, peer-to-peer systems, time-critical protocols, scalability and securityDiscusses fundamental mechanisms in detail, with an emphasis on the idea of "consistent behavior" in systems that replicate critical components for availability s a wide array of major cloud computing components, including BitTorrent, Dynamo, Chubby, BigTable, Zookeeper, and othersIncludes more than 80 problems ranging from simple tests to challenging topics suitable for semester-long projectsWith its well-focused approach and clarity of presentation, the guide represents a unique resource in the contemporary cloud-computing arena. Anyone seeking a solid background in distributed computing, cloud computing, or the modern Internet will find

the book an essential and practical learning tool.