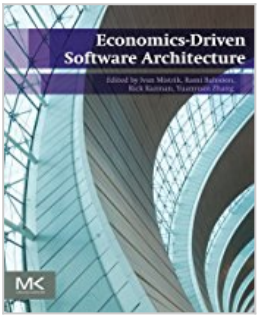

Economics-Driven Software Architecture

From Morgan Kaufmann

Economics-Driven Software Architecture From Morgan Kaufmann

Economics-driven Software Architecture presents a guide for engineers and architects who need to understand the economic impact of architecture design decisions: the long term and strategic viability, cost-effectiveness, and sustainability of applications and systems. Economics-driven software development can increase quality, productivity, and profitability, but comprehensive knowledge is needed to understand the architectural challenges involved in dealing with the development of large, architecturally challenging systems in an economic way.

This book covers how to apply economic considerations during the software architecting activities of a project. Architecture-centric approaches to development and systematic evolution, where managing complexity, cost reduction, risk mitigation, evolvability, strategic planning and long-term value creation are among the major drivers for adopting such approaches. It assists the objective assessment of the lifetime costs and benefits of evolving systems, and the identification of legacy situations, where architecture or a component is indispensable but can no longer be evolved to meet changing needs at economic cost. Such consideration will form the scientific foundation for reasoning about the economics of nonfunctional requirements in the context of architectures and architecting.

- Familiarizes readers with essential considerations in economic-informed and value-driven software design and analysis
- Introduces techniques for making value-based software architecting decisions
- Provides readers a better understanding of the methods of economics-driven architecting

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Economics-Driven Software Architecture From Morgan Kaufmann Bibliography

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Editorial Review

Review

"This multi-faceted body of knowledge will be able to guide any practicing software architect or software engineer in making explicit economic and strategic considerations of architectural choices." ***- Computing Reviews***

"*The main goal of this book is to outline some of the current thinking on the processes and practices for economics- and value-oriented software architecting."* ***- HPCMagazine.com, August 2014***

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Currently a post-doctoral researcher in the CREST centre, SSE group, UCL. She received her PhD in Software Engineering from Kings College London in 2010. She has been working on multi-objective requirements selection and optimization for release planning problem.

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