

Chapter 1

Architecture Principles for Enterprise Software and Mobile Application Development

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ABSTRACT

When it comes to software or mobile application development, it is only possible to make it successful with the help of a good architecture and the principles that govern it. It has been found that applications that use the principles of architecture are good at scalability, maintainability, availability, interoperability, and so on. The development of mobile applications should be based on SOLID principles which leads to high-quality code without any additional effort on the part of the developer. The architecture process focuses on the design of both functional and non-functional requirements for a system. By designing the architecture of a system, one can gain a deeper understanding of the bigger picture of the system as a whole. Well-designed architecture and principles play a critical role in enabling developers to build scalable and high-quality applications.

INTRODUCTION

For the Enterprise application or mobile application development irrespective of its Android or iOS based application the Architecture principles are independent, and can be used anywhere. Functional requirements define what a software product must do: its features and functions. The non-functional requirements (NFR) define

DOI: 10.4018/978-1-6684-8582-8.ch001

the system attributes such as scalability, availability, maintainability, reliability, performance, and usability (Barrera et al.). The Non-Functional requirements are just as critical as functional Epic, Features, Story (Arseniev et al.). As a result, the system is made more usable and effective. In the absence of any one of these criteria, a system may fail to satisfy internal business, user, or market needs, or fail to meet regulatory or standard requirements. Figure 1 shows the Non-Functional Requirements. Let's discuss some of the Non-Functional Requirements:

THE KEY NON- FUNCTIONALREQUIREMENTS ARE

Figure 1. Non-functional requirements



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