

Whitepaper on Service Based Architecture



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Introduction

Service Based Architecture is a unique concept that extends the basic concept of Service Oriented Architecture wherein various processes related to Software Development Life cycle and those related to a domain could be incorporated in order to achieve rapid deployment of projects

The Service Based Architecture allows the developer to scale the experience gained in a particular domain to a new level and build a domain expertise

The whitepaper tries to bring various features of Service Based Architecture and helps a software company to be not only competent with respect to the domain but also enable the solution architect to build solutions that are independent of the technology. This ensures a solution could be deployed in spite of not having relevant experience in a particular technology.

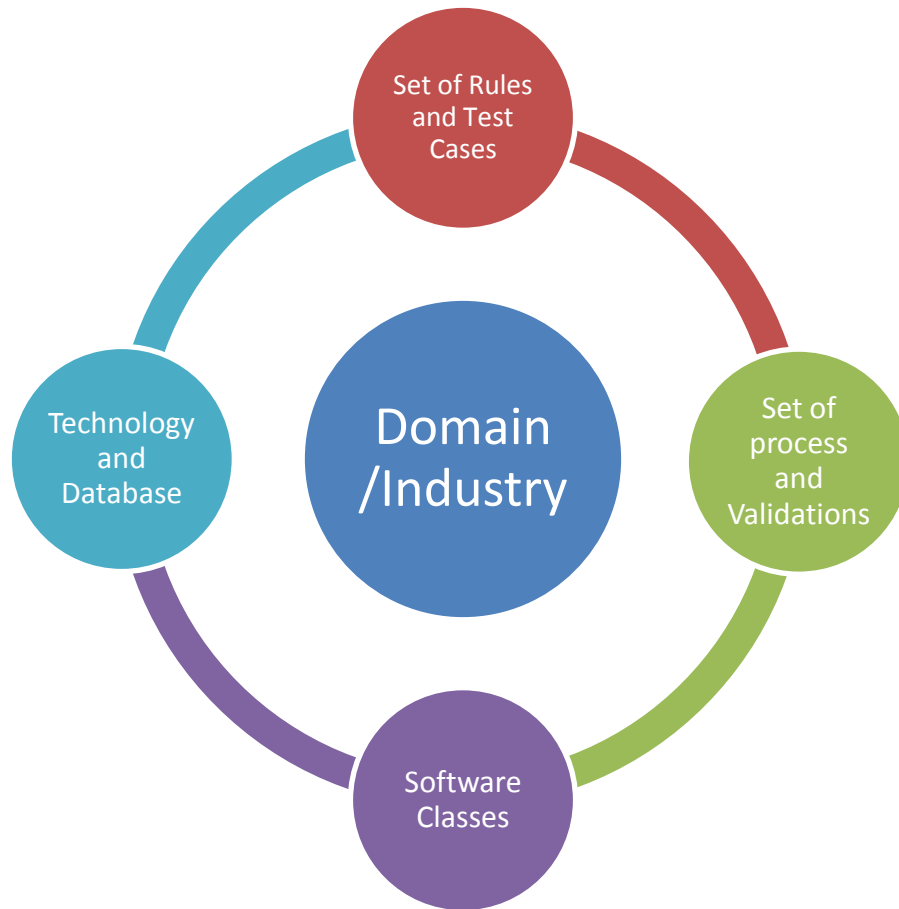


Service Based Architecture – The Concept

Generally, during software development lifecycle, the architecture designed and developed focuses on the components to be used from a programmer's point of view. This approach is good for the software developer and helps to build a repository of reusable components. However it does not consider the processes associated with the industry or person for whom the solution was built.

Service Based Architecture tries to encapsulate the very processes associated with an industry thereby allowing the developers to build on the domain expertise gained while developing a solution. The processes may be of peculiar type and would be a mark associated with a particular domain or industry. The concept can be illustrated as follows:





Associated with a domain or industry would be the following components

- **Set of Rules and Test scenarios:** That evaluates the efficacy of the solution built for a particular domain or industry
- **Set of process and validation:** That undermines the backbone for the system and helps in understanding the process followed by the industry
- **Software Classes:** The relevant software classes that could be built upon and could be a specialized building block for the industry or domain
- **Technology and Database:** Based on the technology and database used, the entire process along with the rules would be mapped.

Case Study – Accounting Domain

Let us try to implement the concept of Service Based Architecture for solutions designed for Accounting

The basic process involves

- Raising a Purchase Order
- Generating Invoice Based on the Purchase Order
- Processing the Invoice

The Service Based Architecture tries to encapsulate the various set of rules associated with each process and designs a generic solution which could be deployed independent of the technology.

For instance, a company may have to raise a purchase order as soon as a sales order is raised. Or a company might have to process various purchase orders at one go. A company may have to change the customer for a particular purchase order. All these are set of rules that are primarily a feature of Accounting but needs customization for each company or organization. Service Oriented Architecture tries to make sure the primary features are common across the technology and database thereby allowing the developer to provide minimal work of customization. In this way domain expertise could be built upon.

