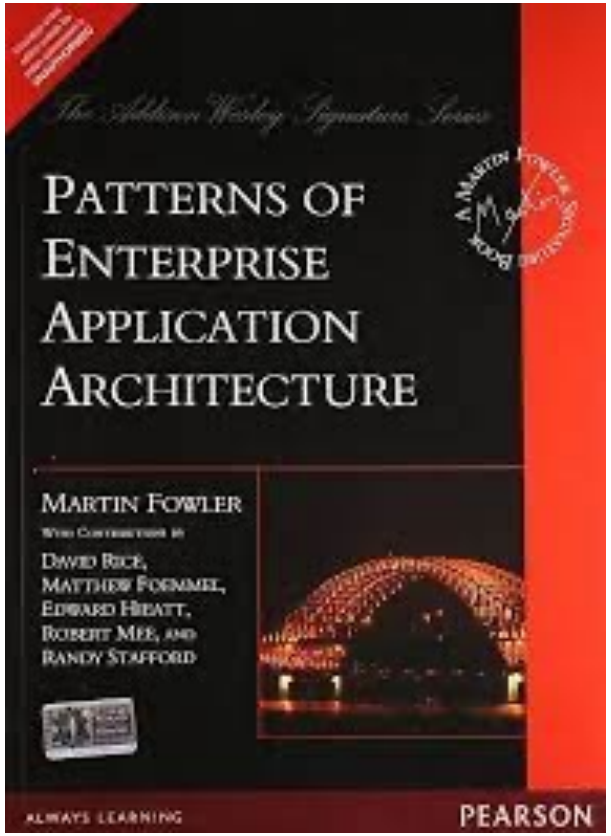
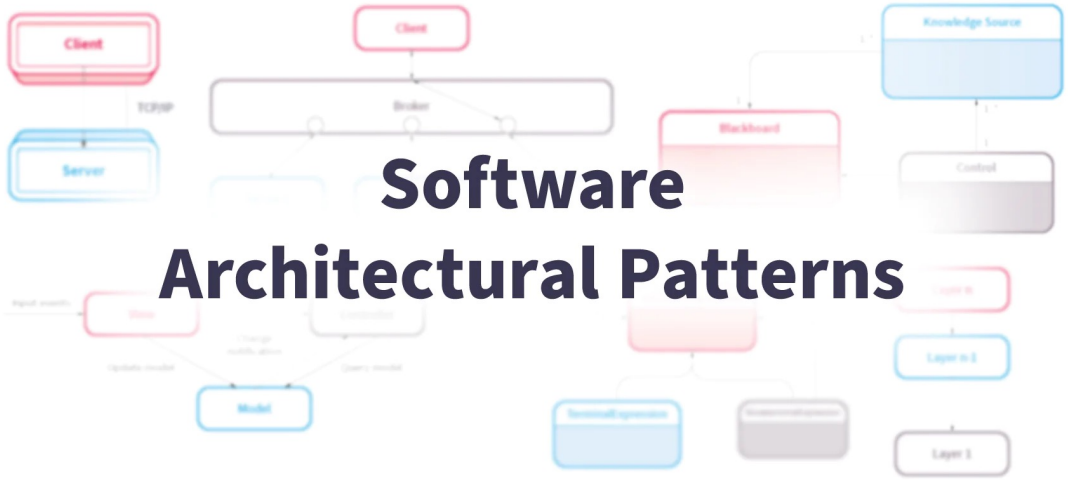


Patterns of Enterprise Application Architecture

Software Architecture

Software architecture is the set of structures needed to reason about a software system and the discipline of creating such structures and systems. Each structure comprises software elements, relations among them, and properties of both elements and relations.

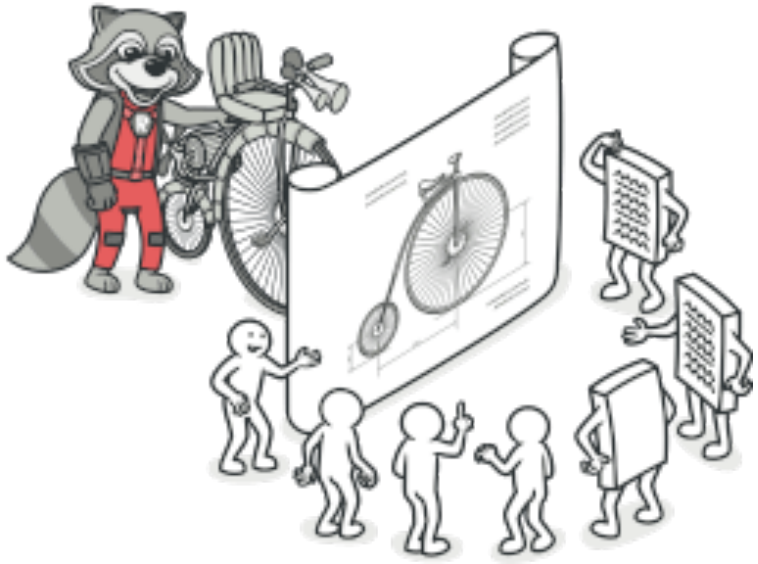


Enterprise Applications

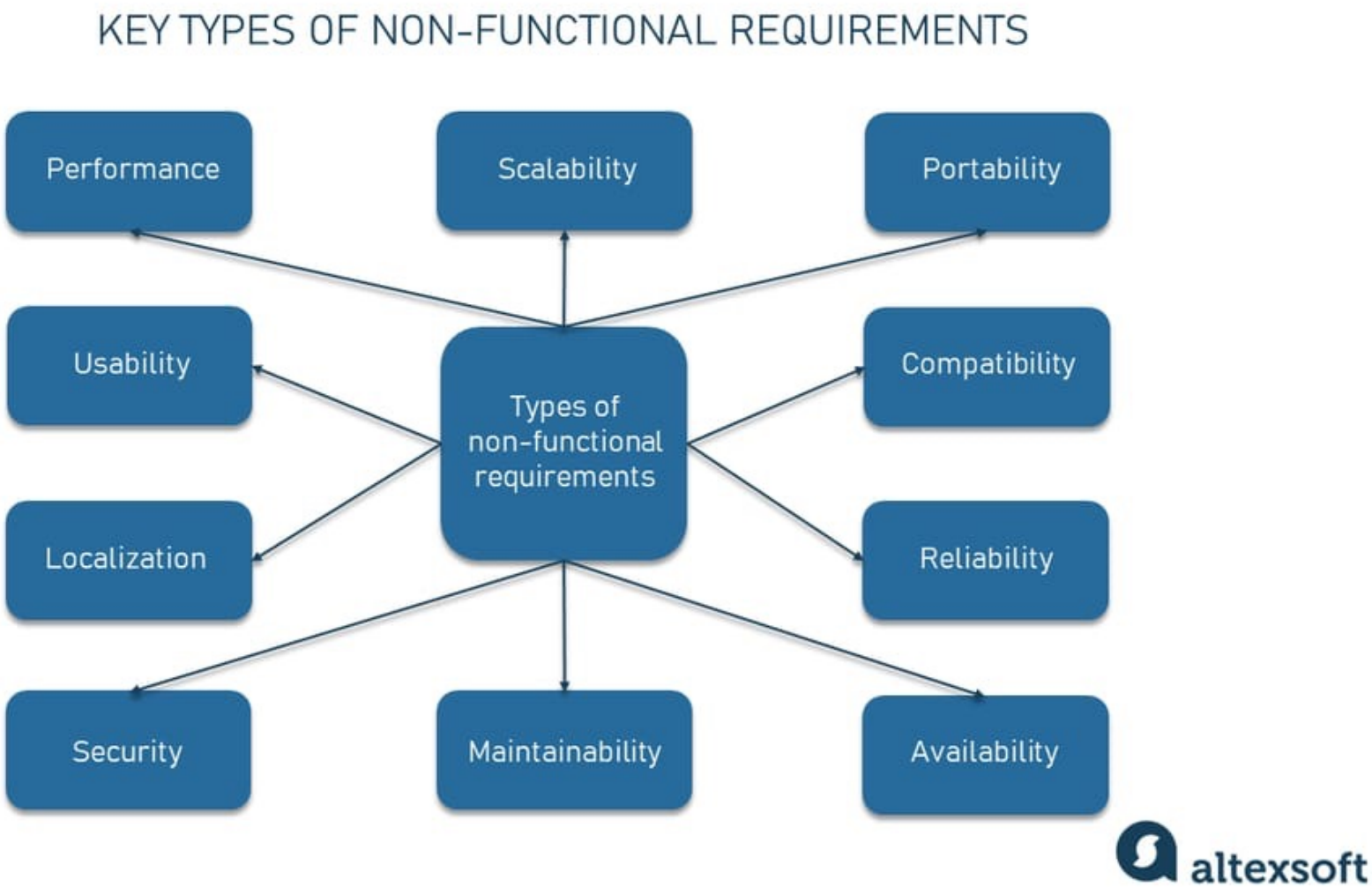
Enterprise software, also known as enterprise application software (EAS), is computer software used to satisfy the needs of an organization rather than its individual users. Enterprise software is an integral part of a computer-based information system, handling a number of business operations, for example to enhance business and management reporting tasks, or support production operations and back office functions. Enterprise systems must process information at a relatively high speed.

Patterns

In software engineering, a **software design pattern** is a general, reusable solution to a commonly occurring problem within a given context in software design.

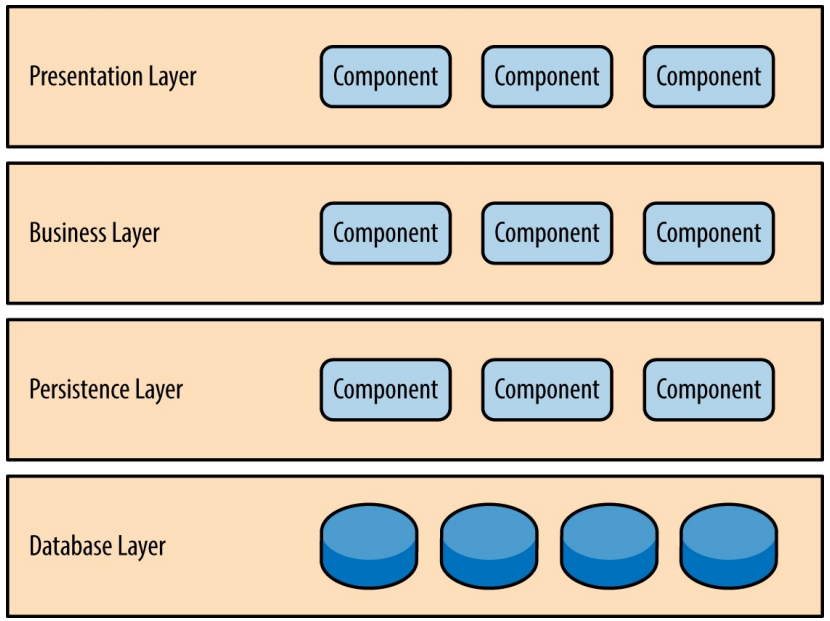


Non Functional Requirements



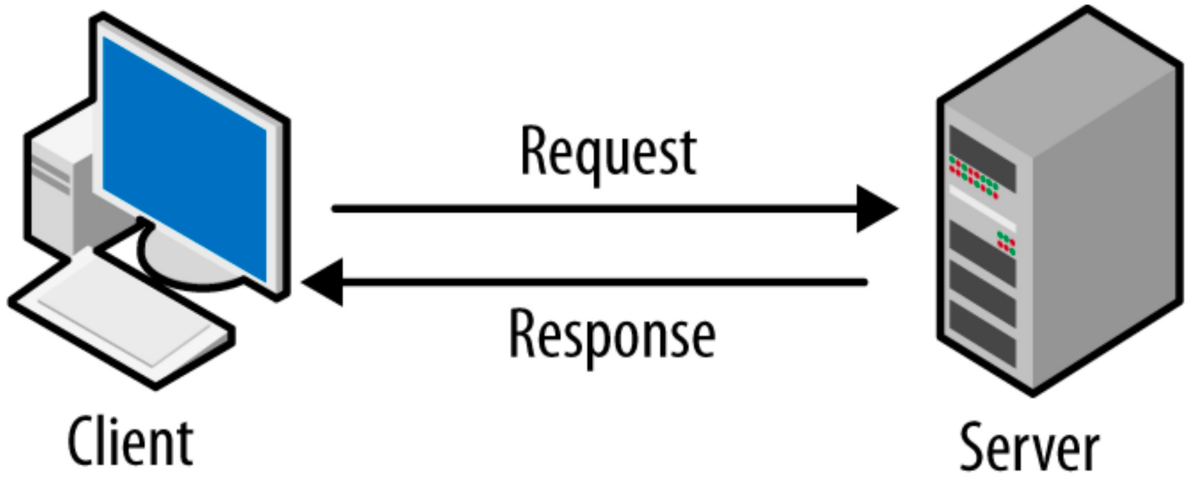
Layering

Layered architecture patterns are n-tiered patterns where the components are organized in horizontal layers. This is the traditional method for designing most software and is meant to be self-independent. This means that all the components are interconnected but do not depend on each other.



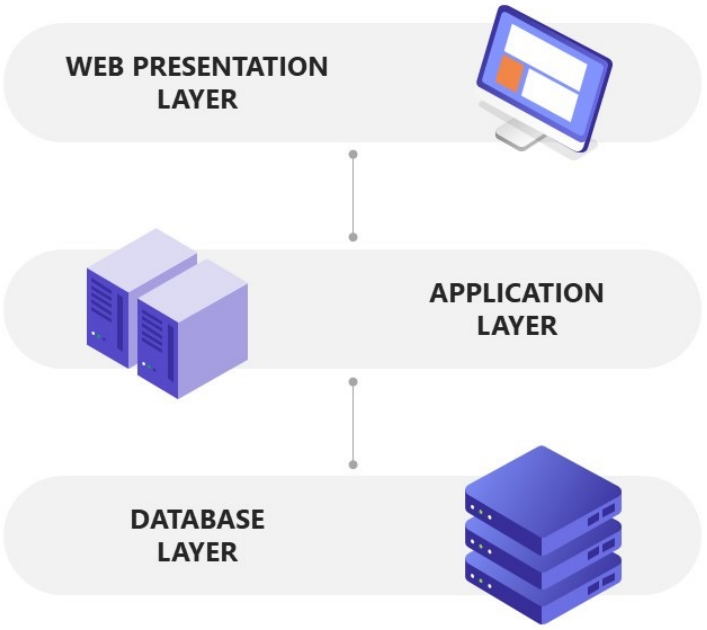
Client Server

The client-server architecture refers to a system that hosts, delivers, and manages most of the resources and services that the client requests. In this model, all requests and services are delivered over a network, and it is also referred to as the networking computing model or client server network.



The Three Layered

Three-tier architecture is a well-established software application architecture that organizes applications into three logical and physical computing tiers: the presentation tier, or user interface; the application tier, where data is processed; and the data tier, where the data associated with the application is stored and managed.



Choosing Where to Run Your Layers

- For most applications the decision is whether to run processing on a client, on a desktop machine, or on a server.
- Separation between layers is useful even if the layers are all running on one physical machine.