Integration Architectures
Exercise Sheet No. 4
Assignment No. 1
Date: 29.11.2021
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a)

Please review
your architectural model that you have developed in assignment 3-3: Where do you see the adoption of either of these patterns as useful? Please do also discuss, whether your software architecture might benefit from a message-based middleware (MOM) as introduced in chapter 3. What might be use cases, in which a MOM might be a useful architectural element?

Pattern Request Reply:

The APIs are the consumers which send requests and get replies from the database as a provider in an asynchronus way. This pattern is already implemented intuitivly.

Pattern Message Translator:

The requested information of salesmen and evaluation records from the database is stored and presented in JSON Format which is not optimal for the end client like the CEO, Assistant or Salesman of the company. With the “Pattern Message Translator” the replied data could be translated into a simple, clean and graphical Output for the end clients.

Pattern Content Filter:

The data is often to much to be represented simple and clear. With the Pattern content filter the end client (Assistant, Salesman etc.) could view the only relevant data, i.e. from the evaluation records just the bonuses.

The software architecture could benefit from the three given patterns as described.

Are there any places within the software architecture, where a
MOM is definitely *not* the right architectural decision to be considered?

Looking at the 65 messaging patterns on the described website from the lectures: https://www.enterpriseintegrationpatterns.com/patterns/messaging/

the usage of the message patterns depends on the correct point of implementation of a pattern. For example a message translator should not be used before the construction of a message.

Possible usage of pattern message translator is shown in /diagramms/UML/UsageOfMOMPattern

b) The revised usecase diagramm for task b) is in the /diagramms/UML/UseCase and Architectural Digramm in Architectural Model