

5 Evaluation

I don't know
if it's what you want,
but it's what you get.

(Larry Wall)

In this chapter, the evaluation of the proposed solution model with discussion will be covered. The discussion is presented with some questions to illustrate the overall course of action followed during this master thesis. The discussion consists of questions discussed at intermediate and final presentation, and discussion to finalize the work in this thesis.

1. **What was the first idea, does it come along with the work?**

There was an alteration idea about the model described at the first state of this thesis work. The first idea of meta-model discussed is beyond the current model and a way too difficult to be illustrated. Therefore, other possible solutions are examined. One of the solutions is design pattern that we are proposed to model the variability in our case. The model result presented in this work is in an initiate stage, started with an idea about how to explain the variability and tried to model it over several variability techniques existed. Even though the proposed model haven't been implemented, the model are well described our problem as defined in the chapter one.

2. **What goals are achieved, what aren't?**

The goals of this master thesis are to enhance the MeDIC information systems, focusing on the entities variability issue as we mentioned before. The model we proposed is able to describe the variability issues, which is entity variability. There are two entities we chose as domain model; information need and measure/metric entity that have been analyzed and modeled with proposed model. Therefore, there still are several entities in the MeDIC meta-model that need to be evaluated and modeled concerning about variability such as report and interpretation entity. Those model need to be implemented to truly enhance the MeDIC system. However, further research need to be conducted in advance to check the implementation feasibility of those model.

3. What are obstacles/problems that occurred during work?

The main obstacle to start this thesis is to understand the terminology of variability. Implementation of common variability concept is mostly referred to software product line (SPL) engineering. The main objective of this variability concept is for product reusability, where a set of reusable components in a number of software products are identified. On the ground of diversity arise from the process in metric entity specification and in line with the objective of reusability, we chose the term of variability as the main part of this master thesis. Moreover, to specify and clarify this term in our work, we defined our perspective about variability which is entity variability (see 3.2.1). The term of variability in our work with entity perspective seems to be difficult for other people to understand, because the variability concept is mostly refer to SPL point of view. A suggestion from final presentation of this thesis about changing the variability term as part of the title will be considered to reduce the ambiguity of the definition of variability used in this work.

Another issue is time related. The starting stage of this work to find related work and comprehend the variability with the existing problem spent the most time of the thesis schedule. Most of the searching result will be referred to variability at SPL. Few resources lead to the slow work progress. At the time when the solution to model the entity variability is found, the remaining time was not sufficient to finish all the works that have been planned. Therefore, only two main entities at the MeDIC system chose to be analyzed and designed; and the implementation part is only presented with the prototyping as the first look at the actual implementation.

4. What is applicable situation to apply decorator pattern on an entity?

The first requirement that needs to be examined of an entity is the variability itself. The process to specify the entity must be analyzed to find possibility of entity variability. The variability might occur from one of several sources as mentioned in section 3.2.1. If the variability is indicated from the entity specification process, the next step is to determine all possible variants of the entity. Those variants must be determined clearly so that all possible decorator classes can be established to represent each variant.