

Abstract

Software development increases with the number of user requests, but time That which must be completed in development is very limited. One solution to the problem That is by implementing Software Reuse because it can improve quality and speed up the time needed in development software. Reusability allows source code to be reused to add little functionality or no modification. However, the problem with reusability is that if the application existing ones have a code smell like coupling and high complexity in a class. So that impact on the difficulty of a code to be reused. Therefore, it is necessary to refactor or code changes to the application. In this case study, the application is refactored into the MVVM architecture because it has the advantages of high cohesion and low coupling rate. For testing reusability, using CK-metrics measurements related to reusability aspects including namely CBO (Coupling Between Objects), DIT (Depth of Inheritance Tree), NOC (Number of Children), WMC (Weighted Methods per Class), and LCOM (Lack of Cohesion in Method). After refactoring on the baseline application and measurements were made against these metrics, the MVVM architecture reduces the reusability value on the application. This is due to the increasing coupling and complexity, and decreased cohesion in the application.

Keywords: Reusability, MVVM architecture, CK-metrics.