ABSTRACT

The problem often faced by front-end web developers is writing program code with the same use repeatedly, making the maintenance process difficult. In this study, the front-end website development of the FeelsQuest feature was carried out using Component-Based Development (CBD). The implementation of CBD aims to make the website display developed in small display components that can be easily maintained. This study uses the Laravel framework which focuses on the View module and the Laravel Blade Templates feature which can create website display components for CBD implementation. In component development, the SOLID principle will be applied to produce program code that is easy to maintain. The results of the website interface program code were tested using the PHPMetrics tool to obtain the Maintainability Index (MI) matrix which is a measure of whether the program code can be easily maintained or not. The average value of the MI matrix obtained was 110.20, which can be said to be good because it is worth 85 and above, meaning that the program code can easily be changed, improved and added to the display in further development. The results of this study indicate that the development of the front-end website of the FeelsQuest feature by implementing CBD and applying the SOLID principle using Laravel can facilitate the maintenance process.

Keywords: *Front-End, Laravel, Component-Based Development, Maintainability*