Comparative Analysis of MVC and MVP Architectural Patterns on the Maintainability of IOS Application Based on Swift Using Code Metrics Supervised by Didit Rahmat Hartadi, S.Kom., M.T.

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ABSTRACT

Selecting the appropriate architectural pattern is crucial in iOS application development to ensure the application is maintainable and scalable. This study compares two widely used architectural patterns, namely MVC and MVP, by implementing them in a simple iOS contact application built with Swift and the UIKit framework. The comparison is conducted using the Maintainability Index method from Microsoft Code Metrics. The results indicate that the MVC pattern yields a higher maintainability score, while the MVP pattern demonstrates better performance in terms of launch speed, testing time, and memory efficiency. These findings suggest that the accuracy of the Maintainability Index method cannot be fully validated.

Keywords: Model View Controller, Model View Presenter, Code Metrics, iOS, Swift, Architectural Pattern, Maintainability Index, Maintainability.