

***Comparative Analysis of Riverpod and GetIt Performance on Flutter
Framework for Android Software
(Case Study of Movie App Development)***

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ABSTRACT

Flutter is an open-source framework that is widely used in cross-platform application development, especially Android. The selection of state management and dependency injection libraries is a crucial aspect in determining application performance and efficiency. This research aims to compare the performance between Riverpod and GetIt integrated with BLoC. The research method includes implementing two versions of the application with different approaches, then testing performance using Android Profiler, Snapdragon Profiler, and Flutter DevTools. Testing was conducted in two scenarios, namely normal profiling testing and complexity testing. The results showed that GetIt with BLoC was more efficient in CPU usage in normal testing, while Riverpod was better in memory management. However, Riverpod showed higher energy consumption due to its reactive nature. On complexity testing, Riverpod excelled in memory efficiency and execution time, making it a better choice for applications with complex data structures.

Keywords: *Flutter, Riverpod, GetIt, BLoC, State Management, Dependency Injection, Android Profiler, Performa Aplikasi.*