Abstract

Mobile applications are considered increasingly popular and most in demand by users because of flexibility and simple. Performance is one of the most important elements in supporting the success of an application because it is related to how fast the system runs and loads data. In improving system performance, efficiency of performance metric values is needed in the aspects of resource utilization, capacity and time behavior. Selection of the architecture pattern is one aspect that can affect the good or bad performance of the application. In this case study, the author compares the performance of an mobile application that applies the Model View ViewModel (MVVM) and Model View Presenter (MVP) architecture patterns by implementing the Covid 19 Application Programming Interface (API) as an intermediary for obtaining information about Covid-19 for get the most superior measurement of CPU usage, memory usage, execution time and load time aspects of API data metrics. It was found that the implementation of MVVM can perform efficiency of performance metric values with an average execution time metric which is considered shorter by 5499.5 ms and also excels in testing load time data from the API based on the average JSON data fetching time from the API of 302.5 ms.

Kata kunci : *Application Programming Interface, Architecture pattern, Model View ViewModel, Model ViewPresenter*