COMPARISON OF CROSS-PLATFORM FRONT-END APPLICATION FOR BATIK ONLINE STORE WITH MULTIPLE STOREFRONTS USING FLUTTER AND REACT NATIVE

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.

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ABSTRACT

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Cross-platform framework is becoming more and more popular. Many tech giants have their own offering with different programming languages. With so many choices, sometimes it is difficult as a start-up developer to choose which framework will they use for their project. Therefore, this thesis work aims to give insight for start-up developers on which cross-platform framework is better between Flutter and React Native by comparing their performance. This project achieved that goal by creating two identical mobile applications using Flutter and React Native and then compared their performance using a theoretical framework that measures load time, average frame rate, and memory usage. The result of this testing is Flutter has a shorter load time at 1.69 second compared to React Native at 4.26 second and lower memory usage at 6.52MB compared to React Native at 27.6MB. Their average frame rate is very comparable hovering around 60 frames per second. With faster load time and lower memory usage Flutter is better performance wise compared to React Native.

Keywords: Cross-Platform, Mobile Application, Flutter, React Native, Performance Testing

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DEDICATION

I dedicated this works for my home country, Indonesia, and my family.

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