

ABSTRACT

Developing a daily worship monitoring application for Muslims in cross-platform mobile application using flutter framework

Nowadays, the use of mobile devices takes the most important essential of a person's life. Due to the highest of requests and opportunities to the mobile application from the mobile device users, the scope of a software engineering approaches its development and challenges. As known, the two most significant operating system for a mobile device is Android and iOS. Developing an application for both the operating system can be deployed through cross-platform mobile development frameworks. The new framework called Flutter was introduced in 2017 by google that uses Dart as Programming Language. This thesis study uses the approach of cross-platform development, and Flutter was chosen as frameworks in designing and building an application and Firebase as the backend data process. The application (Hijr) anticipates Muslim users to help them increasing and monitoring daily worship. In their daily lives, Muslims are required to perform many types of activities as a form of worship to God. The daily monitoring application can help Muslims encourage, monitor, and evaluate the worship regularly. This application builds in the cross-platform flutter framework because of the low availability of the type of application for Muslim users in one of the mobile operating systems, and it still can be utilized by end-users of both Android and iOS OS users. The application uses RAD (Rapid Application Development) as a Software development lifecycle method, a conceptual framework of the research because RAD is intended for short-term software development following a developed simple application.

Keywords: Cross-platform, Flutter, Dart, Firebase, Mobile application, Muslim, Daily worship.