ABSTRACT

DEVELOP VOICE COMMANDS SYSTEM IN DAILY PRAYING APPLICATION BASED ON ANDROID

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Today, there are many applications of daily prayers that already available in the Android market or in other download sites, but there is no application that has voice commands in its system. This problem attracted the attention of the author to be solved by building the voice command system on the application of daily prayer.

Android is one of operating system which is being developed now. This application uses a microphone that is already available on the smartphone as input devices and applying the Fast Fourier Transform for speech recognition and Hidden Markov Model to match the sound. The application that is built can be used on a mobile device with android operating system version 2.3 (Gingerbread) or more.

Software engineering method used the object-oriented approach as a model of analysis and design of the built software. After going through the appropriate approach, then the implementation phase carried out. After that, the testing phase conducted consisting of alpha and beta testing. In the alpha testing use two methods are black box and white box method. Based on the results of tests performed in alpha, it can be concluded that the applications are built free of syntax errors and based on the results of beta testing that is done, it can be concluded that the overall application can be run as expected.

Keywords: Speech Recognition, Hidden Markov Model, Android, OOP (Object Oriented Programming)