ABSTRACT

DESIGN OF LUMPY SKIN DISEASE DETECTION APPLICATION IN CATTLE BASED ON ANDROID WITH AGILE METHOD

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One of the diseases that has recently hit cattle farms in Indonesia is Lumpy Skin Disease which causes symptoms such as bumps on the skin of cattle. Because Lumpy Skin Disease is new, the problem that arises is the lack of information about LSD so that late treatment of infected cattle causes losses to farmers. Therefore, early detection of disease is considered very important to determine policies to reduce the possibility of widespread spread of the virus. To help farmers to find out the symptoms of Lumpy Skin Disease earlier, an android-based Lumpy Skin Disease detection system was created that can not only scan for disease but also provide complete information about Lumpy Skin Disease. The method used to design and build disease detection systems uses the *Agile* Method. The use of this *agile* method is intended for flexibility in building features for users, which can be developed continuously according to user needs. The stages in this *agile* method focus on planning, design, implementation, testing, and review. This research is expected to produce a detection system that can help farmers to recognize Lumpy Skin Disease and provide information about the disease to prevent and provide appropriate treatment. Based on the results of tests conducted on this Lumpy Skin Disease detection application using several tests such as Blackbox Testing, Compatibility Test and Performance Efficiency Test, it can be concluded that the application runs well and the features that run as expected. This can be seen from the success rate of test cases in Blackbox testing from a total of 108 test cases conducted there are 105 successful test cases with a percentage of 97.14%, Compatibility test testing shows the application can run on Android with API Level 26 to API Level 34 without crashing the application, and Performance Efficiency testing shows CPU usage in the application is quite stable without crashing and memory usage although quite large but does not show signs of memory leak that causes the application to crash.

Keywords: Agile Method, Android, Design, Lumpy Skin Disease