ABSTRACT

DESIGN AND DEVELOPMENT BACKEND OF E-NAK APPLICATION FOR MONITORING LIVESTOCK TRANSACTION SERVICES USING RAPID APPLICATION DEVELOPMENT METHOD

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Serayu Larangan Village is one of the nineteen villages in Mrebet Subdistrict, Purbalingga Regency. This village has a livestock business that still operates conventionally, run by the Berkah Minda Serayu (BMS) farmer group. The livestock transaction process is still carried out traditionally with manual bookkeeping, resulting in many undefined financial flows. To improve transaction monitoring performance in livestock farming, an application is needed for reporting purposes. This application is built using the Rapid Application Development (RAD) method, which is used as a reference in application development. This method is chosen because it is suitable for systems or software with quick and flexible characteristics, allowing for system development in a shorter time. This study builds an E-Nak application, which is expected to be a solution to the problems faced by farmers. The application is built on an Android (mobile) platform so that it can be easily used by farmers. The testing results of all test cases on Black Box Testing obtained a feasibility percentage of 100%, indicating that the E-Nak application meets the criteria of very good. The database performance testing results using Firebase Performance Monitoring were satisfactory, with a result of 2ms, which is better than the recommended latency for an ideal application.

Keywords: Android, Livestock, Firebase, Rapid Application Development