

ABSTRACT

The livestock industry is one of the economic sectors that plays an important role in providing food sources and raw materials. This case study focuses on "Kavling Ternak Park" in Wonosalam District, Jombang Regency, East Java. Ternak Park is one of the rapidly growing farms in the area. There are several problems in livestock farming including complex monitoring of livestock health. Inaccurate maintenance and monitoring of nutrition are also problems, especially in calculating nutritional needs that change with the growth of livestock. To overcome these problems, this study aims to design and implement an Android-based application called "Sobat Ternak". This application is designed for monitoring and managing livestock activities via Android mobile devices. This application provides livestock health monitoring facilities and helps in overcoming animal health problems. With high accessibility via commonly used Android devices, this application can support farmers in increasing productivity and maintaining the welfare of their livestock. This study uses the waterfall method and the system design uses the unified modeling language (UML) to ensure system feasibility. The development of this application uses the Flutter programming language. The use of the Firebase database supports livestock data management. System testing is carried out using the black box testing method which tests functional and non-functional requirements, and involves actual Peternaks to test the application.

Keywords: *Android, farms, monitoring, waterfall, and unified modeling language.*

