ABSTRACT

Vehicle license plate is a combination of numbers and letters placed on a metal plate and attached to a motor vehicle for identification purposes. In Indonesia, the vehicle license plate is linked to the STNK or Vehicle Registration Certificate which is a mandatory document that must be owned by all motor vehicles that contains the identity of a vehicle such as type, frame number, tax, active period, and others related to the vehicle. Manual STNK management can reduce efficiency and effectiveness such as difficulty in seeing vehicle information, plate expiration or tax due date. One of the technologies that has been developed in the current digitalization era is LPR (License Plate Recognition). This technology can identify a vehicle plate by taking a picture and then extracting the combination of numbers and letters from the picture. With the existence of technology like LPR, it is possible to develop a mobile Android-based application. The application will have main features including vehicle license plate identification, providing information on an individual vehicle. The application is developed using the ICONIX Process method which focuses on use cases and uses minimalistic UML. The ICONIX Process development steps start with the requirements phase, analysis phase, design phase, and implementation phase. The application is developed on the Android platform using the Kotlin programming language. This research produces a mobile-based vehicle license plate detection application on the Android platform as a trial to improve efficiency and effectiveness against the problems studied.

Keywords : Android, ICONIX Process, Kotlin, License Plate Recognition, Vehicle License