ABSTRACT

The Internet of Thing (IoT) is a concept in which several objects are connected in a network and communicated to each other. This concept enables the objects to transfer and exchange data without human intervention. Nowadays, this technology has been implemented in various aspects of human life such as industry, agriculture, transportation, etc. Furthermore, this technology able to be integrated with other technology such as cashless based payment technology. This integration seems has great potential in Indonesia if looked at the increasing of transaction volume and nominal each year. Looking at the increasing use of electronic money and as research advances on IoT research, making a cashless-based IoT system is expected to help human life, especially in Indonesia. One of the problems which Indonesia faces is waste problem, especially plastic waste. Indonesia produces 65.2 million tons of waste per year which 10 million of it is came from plastic waste in 2016, as this situation goes, there are many solutions which came up from government or the people like program called "One million tumbler" that initiated by the Ministry of Communication and Information of the Republic of Indonesia. Therefore, for helping this campaign to reduce the plastic waste usage and to take advantage of integration between IoT and cashless based payment, an idea comes out to integrate dispenser with IoT. In developing this system V-model software development will be carried out for helping the developing process.

Keywords: Internet of Thing, Android Application, User Interface, V-model, Cashless payment