ABSTRACT

In this increasingly advanced era, the demand for technology is increasing so that it becomes the primary need of society. With the existence of this advanced technology, the need is increasing and requires something more. With the smartphone can bring the relationship between people closer. Realizing the importance of this technological device to support daily life, makes developers cunning to create an application where the application can find out the location of latitude and longitude, and can find out when we have opened the application without the user realizing it.

In this final project, the Design and Implementation of a Live Location Tracker is carried out using the Android Studio code editor which can be implemented with a Firebase database. This GPS application is inserted into a Games application called JigDraw so that it can retrieve latitude, longitude and time and date from the user without the user realizing it. Based on whitebox testing, it can be concluded that the GPS application that has been inserted runs as desired. This system relies on the accuracy of the GPS on the device, such as the Samsung brand device in this test which is equipped with a superior GPS system. The GPS system can affect the accuracy of values for latitude and longitude, such as the number of satellites that can capture GPS signals on the device. Based on the comparison made between Tracker Live Location and A – GPS Tracker, it can be concluded that in both applications there is a difference in the last entry in the sample location which is approximately 10 meters away due to the last 3 digits in longitude.

Keywords: GPS, Firebase Realtime Database, Android.