ABSTRACT

Blind people are people who have limitations in their five senses of vision or do not have the ability to see well. Blind people find it difficult to do activities, especially walking, for example when they are in a room they just visited they don't have information about the room or when they are outside the room they can't see traffic signs. Currently they still need the help of others to be able to find out every detail of the information. One of the technologies that can help the blind is the existence of a smartphone as a medium that can help the blind in carrying out their activities.

The development of the Naviku application presents a solution for the visually impaired in navigating by utilizing the QR code. With this application, the visually impaired can obtain the information they need around them more easily and efficiently, especially for places or locations that are visited for the first time. The development of this application applies the kanban method which prioritizes limiting the amount of work in the processing process and carries out maximum workflow management known as WIP (Work In Progress). The results showed that the application was successfully designed according to the desired needs, and application testing using black box testing achieved positive results with an average success and testing using the user acceptance test in the second iteration obtained a result of 80.76%. Then it was tested again in the third iteration to get a result of 92.16% in the very good category. It is hoped that the Naviku application can become one of the assistive applications that can be used for blind people.

Keywords: Smartphone, Blind, Navigation, Quick Response Code (QR Code), Android, Kotlin, Agile, Kanban Method