

REMEMBER ME: AN APPS TO HELP PEOPLE WITH DEMENTIA

Firman Fathoni

Supervisor : Dhadhang SBW, S.ST

Center for Young Scientists. SMP Negeri 1 Surabaya, East Java, Indonesia, firmanfathoni06@gmail.com

1. Introduction

Losing keys, misplacing a wallet, or forgetting someone's name are common experiences. But for people nearing or over age 65, such memory lapses can be frightening. They wonder if they will have dementia as they grow older.

I have a grandmother whose age is over 65 and we have a huge family which makes it difficult for her to remember her grandchildren's names. She always asks who is it that is approaching her.

Grandmother always asks them to repeat their names. More questions make our family sad, it is as if grandmother has already forgotten her family.

Presently, Grandmother need not worry about forgetting a family member's name, as with mobile technology an android application can be created to help Grandmother remember her family. This apps is named "REMEMBER ME".

REMEMBER ME works using Bluetooth Low Energy to detect when a family member is near Grandmother. If someone is nearby, the apps will both identify family and show the name name, photo memories and all information that had been registered.

2. Research Method

Everyone has a smartphone, thus the reason for developing an application for smartphones especially for android application, especially now that most people are familiar on how to use smartphones.



Fig 1. Base concept of 'Remember ME'

The dementia patient's smartphone serves as a smartphone Server and always runs the application with the bluetooth LE continuously scanning. The Family Smartphone serves as a smartphone Client with its Bluetooth tag always on.

If the bluetooth LE smartphone Server detects the bluetooth LE client, the smartphone Server will show a notification identifying who is nearby.

Besides that, the Remember ME application provides to GPS how to return home. If the dementia patient is lost when out

of the home, all that needs to be done is to click the "Go to home" button. A simple game with pictures can help the patient to learn to remember family names.

3. Results and Analysis

Experiments using APP Inventor's android creator app encounter many difficulties and are limited in use, requiring the choice of other applications to support it. HTML5 was selected as a tool to create android apk applications.

At times it is still difficult to connect, especially with different types of androids, such that the information data to be delivered to the dementia patients arrive late.

The use of multiple photographs in patients with dementia makes it easier for patients to familiarize themselves with family members.

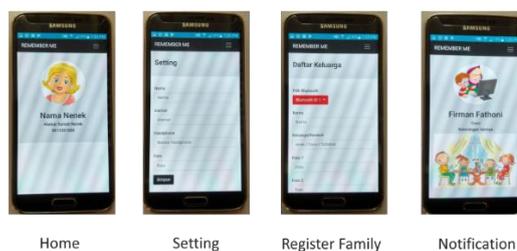


Fig 2. "Remember ME" Running in android smartphone

4. Conclusion

Use of more photos with the dementia patient in their android smartphone will help the dementia patient to remember who is approaching him/her.

5. References

- [1] <https://www.singhealth.com.sg/PatientCare/OverseasReferral/bh/Conditions/Pages/Dementia.aspx>
- [2] Akhmad Dharma Kasman, Kolaborasi Dahsyat ANDROID dengan PHP dan MySQL: Lokomedia, 20131995.