General

PISAH app monitors quarantined individuals due to Covid-19

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PEKAN, 24 June 2021 - Since the Covid -19 outbreak began, various efforts have been enforced by the government in combating its spread in order to break the chain of infection.

For example, the use of wristbands to individuals who need to be quarantined to restrict their movement.

Currently, we can see that special teams will make inspections to monitor individuals who undergo mandatory quarantine at homes.

However, there are still a handful of irresponsible people who have violated the standard operating procedures (SOP) set by the government.

Concerned about the issue of frontline monitoring, it has inspired a researcher from the Faculty of Computing (FK), Universiti Malaysia Pahang (UMP), Associate Professor Ts. Dr. Mazlina Abdul Majid, 43, to produce a system that can monitor the records of quarantined individuals named Covid Patient Tracking System at Home (PISAH).

The idea started when she saw an increase in new cases in the country and sympathised with the plight of the burnout frontliners while treating Covid-19 patients every day.

“PISAH is a mobile phone app that monitors and tracks the records of individuals quarantined at home for 14 days.

“PISAH is a Malay word meaning to split or separate.

“When the number of cases increases, the number of close contacts or patients under investigation (PUI) also increases,” she said.

Therefore, she said, strict controls must be enforced to reduce cases of Covid-19 in hospitals and prevent its spread.

“So, I settled on the idea to produce an app that can monitor from home for patients with mild symptoms and individuals who are in close contact.

“PISAH tracks the location of individuals using GPS technology.

“With this app, the location will be recorded based on a specific time, and those responsible for monitoring, namely the police or employers, can track the movement of individuals from the app’s personal dashboard,” said Associate Professor Ts. Dr. Mazlina.


2:37
PISH
COVID PATIENT TRACKING SYSTEM AT HOME
STAY
AT HOME
COVID PATIENT TRACKING
SYSTEM AT HOME
LOGIN
SIGN UP

2:36

PISH
COVID PATIENT TRACKING SYSTEM AT HOME

HOME-QUARANTINE ACTIVITIES

Quarantine Start Date

Self Quarantine Day 01



Tracking



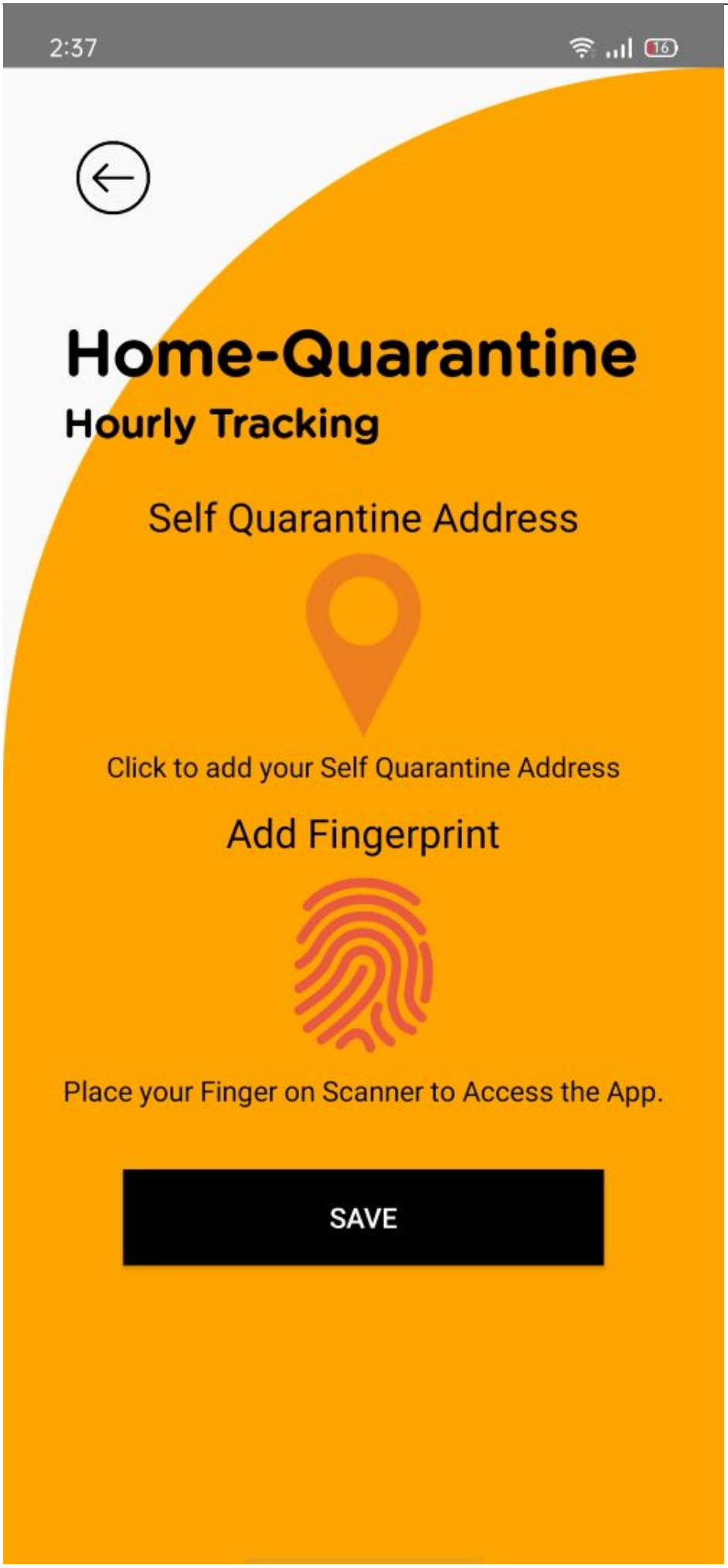
Diagnosis



Dashboard



Start Date


2:37
Home-Quarantine
Hourly Tracking
Self Quarantine Address
Click to add your Self Quarantine Address
Add Fingerprint
Place your Finger on Scanner to Access the App.
SAVE

2:36

PISH
COVID PATIENT TRACKING SYSTEM AT HOME

HOME-QUARANTINE ACTIVITIES

Quarantine Start Date

Self Quarantine Day 01



Tracking



Diagnosis



Dashboard



Start Date

She added that PISAH is easy to use by only being registered through a smartphone.

“Individuals who need to be quarantined will register their personal information, including the start date of quarantine, through this app.

“They also need to assess their health status during the quarantine period.

“At the same time, monitors can find out the health status of the individuals,” she said.

In addition, PISAH is very useful in implementing strict home quarantine monitoring by the Ministry of Health Malaysia (MOH) or employers and is beneficial for cost reduction and resource optimisation.

According to the Pahang native, PISAH is now at technology readiness level 6 (TRL6) and ready to be tested in a real environment in any organisation.

She hoped that PISAH could be used by organisations or the MOH to make strict monitoring of staff or individuals who need to be quarantined at home only through the app.

She said PISAH has many benefits to offer to the community, among others, to stop the spread of Covid-19 among the employees by conducting self-monitoring of level 1 (CC1) and level 2 close contacts (CC2) identified by the organisation.

“This system can also be used by universities to help monitor students who need to be quarantined on campus or assist the airport in managing the quarantine process for individuals or tourists entering Malaysia.

“Also, the app can help the clinic to make surveillance for individuals who are placed under the home surveillance order and can optimise the routine police checks on individuals quarantined at home.

“I am very grateful for the cooperation from Klinik Saidi in getting data.

“I intend to make PISAH as an app that can be accessed through MySejahtera through a collaboration with the Ministry of Health and bring PISAH to other countries by adapting the function of PISAH to the needs of those countries,” she said.

She also hoped to obtain a grant to expand the PISAH function by applying the concepts of internet of things (IoT), artificial intelligence (AI) and big data analytics to make it a complete app that can record results to be subjected to various analyses in the future.

This research was also recognised after winning a gold medal and a special award from the National STEM Association Award and the Euro Business-Haller Award in the recent Malaysia Technology Expo (MTE) Covid-19 Special Edition.

By: Nor Salwana Mohd Idris, Corporate Communications Unit, The Office of The Vice-Chancellor

Translation by: Dr. Rozaimi Abu Samah, Engineering College/Faculty of Chemical and Process Engineering Technology

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