Healthcare Mobile Application

Yee Chee Hong, Neesha Jothi, Javid Iqbal
Institute of Computer Science and Digital Innovation, UCSI University, 56000 Kuala Lumpur, Malaysia

E-mail: neesha@ucsiuniversity.edu.my
www.ucsiuniversity.edu.my

Abstract

The reason behind this project is being carried out because I wanted to help those people who live in a busy city to take care their health. They suffered a lot from working and other stress that caused themselves always to keep in unhealthy status. Although they know they are lives such unhealthy, still they have no time to manage it. Small health problem will always ignore by them and in the end fell ill seriously. Also, the unfriendly user interface of current healthcare mobile application that caused inconvenience to use them. This project will improve those weaknesses that allocated from current existing system. The healthcare mobile will open use to public users. It will come with online appointment, online pharmacy purchase, chat support and check information or history. New function added will be e wallet which can make payment or top up using serial number or smart wallet such as TNG pay and Shopee Pay.

Keywords: healthcare, mobile app, mobile application

1. Introduction

Health is always important to people who lives in this world, no matter in which generation. A good health will lead to a productive life [1]. In this generation, many people do not able to manage their health issues because of their busy working life in such bustling society. Overworking and exhausted will cause the increment of stress and decrement of self-esteem. It will cause more mental health problem such as anxiety, depression, and substance use disorders [2]. Therefore, with the high developed technology, healthcare system application comes out in front of people. They are developed to help these people to take care their healthy anytime and anywhere. In 2020, COVID-19 breaks out into the whole world. In the period of Covid-19, clinic and hospital had entered a state of emergency. Clinic and hospital all around the world become very busy on helping people to cure from illness. Therefore, healthcare application plays an important role here. Healthcare application can help those clinic and hospital to manage their system by provide online appointment for treatment. Healthcare application is rapid developed to help this critical situation. Although the critical situation has passed, people are still using the healthcare application because they realize the convenience of using healthcare application. Nowadays, mobile health app market has improved steadily [3].

2. Methodology

Research methodology allow project to gather the requirement information from public that needed in this project with several techniques or methodologies, then measuring and analyzing the requirement information collected. Qualitative research methodology is non-quantitative type of analysis which is aimed at finding out the quality of phenomenon. Quantitative research methodology is used to measuring the quantity or number of phenomena by use of statistical analysis. Qualitative gives deeper understanding on research that are not clear which quantitative gives clear generalized fact on research. In this paper, the authors will choose quantitative research methodology and it will be survey

and questionnaire. It is easy to implement while it can gather public's opinion on this healthcare mobile application and make improvements. Google Form will be the platform used to make the survey and questionnaire. Question may be easy for the purpose of easier to collect simple information. Target respondent will no limit to any population because the application is made for public user. To gather the information requirement, the separated sections will focus on different information. Section A will collect information about the understanding of users towards healthcare mobile application. The questionnaire had been done by 50 persons. Each sector shows out all result in pie chart in Google Analysis as Fig. 1 and Fig. 2.

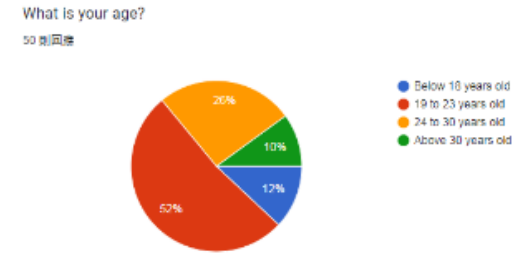

Fig.1.Sector A

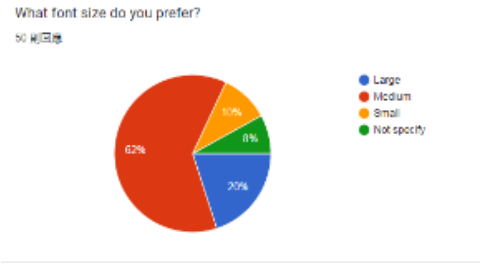

Fig.2.Sector C

In Sector A, results are all the information from participants such as age, gender, and habit on using application. In Sector B, results show their opinion on user interface of application they prefer, example low English understanding level, medium font size, bright theme application. In Sector C, results show requirement of application from participant. This affect to the development to ensure that make those function required works in the application. The functions such as allow to multi people make appointment, online purchase from pharmacy, preference of searching engine, usage of in-build e wallet and so on.

3. Results

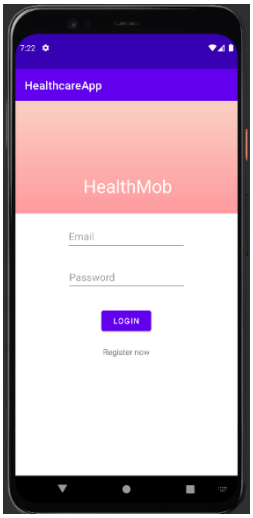

Fig.3.Login Page

Fig.3 show to login page of HealthMob application, user need to enter existing account with email and password, either one incorrect will not login. User can access to register page by click "Register now" text.

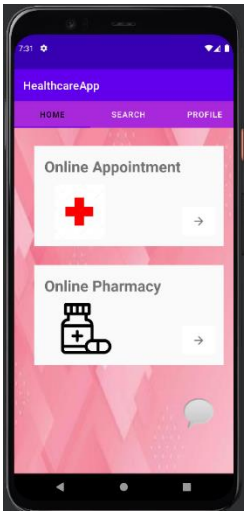

Fig.4.Home Menu

Fig.5.Home Search

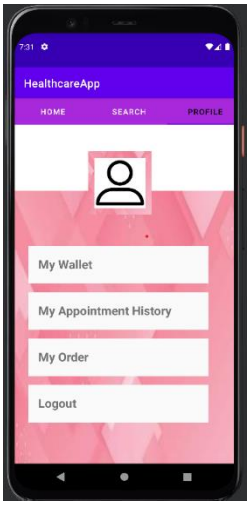

Fig.6.Home profile

Fig.4 is menu home page of HealthMob application, user can perform action to make online appointment or make online pharmacy purchase item. Fig.5 is menu search page, user can perform action to search and view nearby clinic and pharmacy location, clinic and doctor list of HealthMob. Fig.6 is menu profile page, user can perform action to enter wallet page, view appointment and purchase item history, and logout from system.

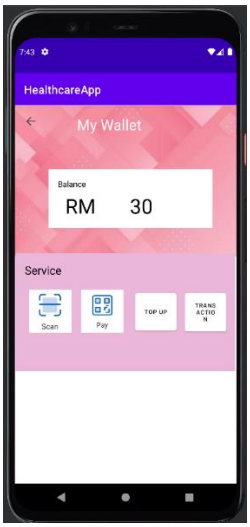

Fig.7.Wallet page

Fig.7 is wallet page can access from profile menu page. User can see their wallet and act such as scan or show QR, top up wallet and view transaction.

4. Conclusion

This healthcare mobile application can allow public user can use this application to manage their healthy. It allows user to choose their nearby clinic to make online appointment. At the same time, they can also purchase some medicine to keep themselves in health. With the in-build e-wallet system, user can easily make payment with this application as it can reload from others smart e-wallet too.

References

1. Dai, F. *et al.* (2020) "Design of an instrument for measuring heart rate and blood oxygen based on Arduino," *Journal of Robotics, Networking and Artificial Life*, 7(4), p. 275. Available at: https://doi.org/10.2991/jrnal.k.201215.014.
2. V. B. S. H. Doctors and Verified By Star Health Doctors https://www.starhealth.in/blog/author/star-health-doctor, "Health and its importance," Star Health, 22-Apr-2022. [Online]. Available: https://www.starhealth.in/blog/health-and-its-importance#:~:text=
3. "Understanding the agile software development lifecycle and process workflow," *Smartsheet*, 18-Aug-2016. [Online]. Available: https://www.smartsheet.com/understanding-agile-software-development-lifecycle-and-process-workflow. [Accessed: 10-Jun-2022].

Authors Introduction

Mr. Yee Chee Hong

He received his bachelor's from the Institute of Computer Science and Digital Innovation (ICSDI), UCSI University, Malaysia.

Dr. Neesha Jothi

She received her PhD from the School of Computer Sciences, Universiti Sains Malaysia in 2020. She is currently an Assistant Professor in UCSI University, Malaysia. Her research interest areas are Data Mining in Healthcare and Health Informatics.

Dr. Javid Iqbal

Javid Iqbal is currently working as a Lecturer at UCSI University, Malaysia. He holds a PhD in Information and Communication Technology from the National Energy University Malaysia. He holds a bachelor's degree in Computer Science and Engineering from Dr. M.G.R. Educational and Research Institute and Master's degree in Communication Systems from Dr. M.G.R. Educational and Research Institute. His research interest includes Multimedia, Augmented Reality and Virtual Reality.