



**UNIVERSITI
MALAYA**

WIA2007 MOBILE APPLICATION DEVELOPMENT

GROUP ASSIGNMENT PROPOSAL SEMESTER 1, SESSION 2022/2023

GROUP NAME: MOMO TEAM

GROUP MEMBERS:

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MOBILE APPLICATION NAME:
Care2U

INTRODUCTION

Mental health is a global concern, mainly for now it has become a serious issue that all authorities cannot simply neglect, regardless of which boundaries or countries we are in. Yet, the level of supporting or helping out the patients with mental health found in every country varies widely and cultural factors sometimes come into play. In Malaysia, although our public healthcare system is well developed, fairly good and able to support the needs of every Malaysian at affordable rates, there are still several shortcomings of the current healthcare delivery system that we cannot avoid especially when it is in the field of medical health. Additionally, mental health conditions are expected to be the second biggest health problem affecting Malaysians after heart diseases. This statement can be strongly supported or proved by some actual data or surveys that will be shown as below.

In 2020, a national survey by the Ministry of Health found that one in three Malaysian adults aged 16 years and above (29.2%) have a mental health condition, nearly triple from 11.2% in 2006. The states of Sabah, Kelantan, Kuala Lumpur and Sarawak have the highest prevalence of mental health conditions. Among Malaysian youth aged between 13 and 17, one in five have depression, two in five have anxiety and one in 10 has stress. An alarming 10.1% of youths have also attempted to take their lives. Thus, by looking at this statistic, it really shows that mental health problems are currently becoming a major medical issue in our country.

There are also some shortcomings of the current healthcare delivery system that need to be highlighted. The first one would be the lack or shortage of sufficient mental health specialists in the public government hospitals. To quote an example, there are only four psychiatric mental hospitals providing mental health and psychiatric services throughout Malaysia. Also, there are only 410 psychiatrists in the public sectors, or 1.27 psychiatrists for every 100,000 residents. By having this example, it really shows that there is a need from private sectors to provide more mental health and psychiatric services to all the patients. Besides, overcrowded government clinics and hospitals are also a kind of main problem in dealing with mental health problems. It is because the general hospitals are always terribly overcrowded. Wards routinely have more than double the number of patients they were built for. Patients sometimes have to wait in the accidents-and-emergency department for over a day for a bed in the ward. Sometimes patients have to be discharged before they are quite ready. The overcrowding not only stresses the medical personnel and adds to the discomfort of patients but also could lead to nosocomial (hospital-acquired) infections. These bad circumstances even happen much more seriously on the patients with medical health problems.

According to the statistics and examples portrayed above, due to the issues and problems that arose, therefore for our Momo Team, we have finally come up with a creative inspiration and idea to propose an Android mobile application called "Care2U". In this app, we hope that we are able to reach out to those who are really needed in the medical health issues so that no one will be left out to get the compulsory services and treatment for them. In order to achieve our goals to cope with the problems mentioned above, we suggests to create and develop a mobile app with some functionalities such as making a consultation session with professional doctors via online, having a meditation mode during night time,

providing a marketplace for the doctors and third-party counsellors to promote and enterprise for their services or products and lastly the online booking / appointment system.

OBJECTIVES

1. To improve patient engagement

The importance of providing quality treatment has increased significantly in today's patient-centric environment. Therefore, our application aims to facilitate the engagement of patients through effective patient-focused care, personalised experiences, and knowledge sharing between providers and patients. For instance, patients can access and monitor their prescription details from the convenience of their own homes without visiting hospitals.

2. To make sure patients can immediately access treatment anytime and anywhere

With the technology nowadays, most people own their smartphones and they can access our online consultant application easily. By using our application, it is easy and secure for patients to send messages and connect to healthcare professionals for telemedicine visits whenever they. For example, patients can ask their questions via message to avoid offline visits for minor issues. Hence, this makes the procedure of treatment become super-efficient.

3. Reduce Expenses and Burden of the patient and staff in Medical Administration

This app can help to cut costs for healthcare organisations and patients. Since the patient can do online treatment with a doctor online, the patient can update their conditions and track by doctor to prevent re-visits. For example, patients who live far away from medical institutions no need to spend the transportation fee and time to visit a doctor physically. Medical institutions also benefit from lower operational and practical visit costs. For regular medical institutions, they require a lot of staff to do the documentation, meeting follow-ups, and patient medical records administration which increase the expense and burden of the institution. Intelligent innovation inherent in the app helps to manage such tasks and improves the healthcare service provider instantly by automating operations.

4. Increase the awareness to maintain a healthy mental lifestyle

Nowadays, most people are busy with their work in pressure conditions and gradually ignore their mental health. This health app helps to increase the awareness of people that it is important to maintain a healthy lifestyle. The app enables people to learn how to build a healthy lifestyle through the articles in the app. In the app, the user can read the articles and increase the knowledge to maintain their mental health correctly. Besides, users can ask doctors for help when they face problems through online private messages. We will help individuals set safe and reasonable fitness goals, increasing the chances to attain the healthy lifestyle they want. Furthermore,

people can share this information with their friends to obtain more advice and support.

VARIOUS ROLES AND FUNCTIONALITIES

Our main target is doctor, patient and third-party counsellors. We want to improve the living standards of our people in Malaysia through our app, so that every patient can have a healthy mind. Through our app, more people can realise the importance of health, especially diet and spiritual aspects. This will also allow doctors to prescribe the right medicine more effectively, and it will also allow hospitals to become more efficient. In addition, functionalities means the purpose that something is designed or expected to fulfil. Our app contains four functionalities which are making a consultation via online, the meditation, the marketplace, and the appointment system.

First and foremost, one of the functionalities of our app is making a consultation via online. It will be very useful for the doctor and patient. From the patient's point of view, patients with mental problems like depression, social phobia, bipolar disorder, anxiety disorders, eating disorders and so on. Most patients are afraid that other people will know that they have a mental illness, and they are afraid of being judged and excluded by others. Therefore, they will only swallow their anger, and then bear it in silence, and finally choose to end their lives. So I think this function is an important and helpful tool. At the same time, they can use this function to slow down their thought diseases through interacting with doctors or consultants through this app to help their diseases get better. From the doctor's point of view, it can help doctors avoid the problem of hospital overcrowding, and can better schedule a consultation time for the patients. At the same time, it can also make it easier for doctors to analyse the patient's disease and prescribe the right medicine. This function can also help doctors save a lot of unnecessary wasted time. Counsellors can use this app to promote themselves, improve their abilities, and help more people in need. They can communicate with patients with mental illness through counselling, try to understand the patients, and help the patients to untie the knots of the patients. Therefore, making a consultation via online is a very useful function as the communication platform between patients with doctors and counsellors.

Apart from that, another one of the functionalities of our app is meditation mode. Meditation is a quiet activity. We can relieve stress by meditating. At the same time, this exercise is also very effective in relieving mental illness. Our app sets up a limited time meditation practice for patients to participate in, but it is not mandatory. While doing this meditation practice, our app plays some stress relieving music, like heavenly sounds. We are not limited to patient engagement, everyone can participate. Our meditation feature will show how many people are meditating with you. Thus, meditation function is a good function to reduce the stress and mental illness of all roles, not only for the patients.

Last but no least, another one of the functionalities of our app is the marketplace. It will be very useful for the third-party counsellors. It helps counsellors advertise their events such as workshops, camps, and so on. Now there are many counsellors, but there is no platform to help publicise them. Therefore, many patients with mental illness choose to kill themselves without the timely help of a psychological counsellor. In order to prevent this

vicious cycle, the function of our app is very important, that is, to promote the activities of counsellors so that more people in need can see and participate in such activities. Therefore, the marketplace is a good idea to promote the activities of the counsellors to help more patients suffering from mental illness.

Finally, the last functionalities of our app is the online appointment system. From the patient's point of view, patients can freely choose the time they want to see a doctor and make a reservation through the function of our app. This will help patients to see a doctor directly upon arrival without having to wait outside. From the doctor's point of view, doctors can arrange work more efficiently, which also greatly reduces the work pressure of doctors. At the same time, the problem of overcrowding in hospitals has also been solved. Thus, the appointment system is an important function for the patients and doctors to arrange their time to do their things.

NON-FUNCTIONAL REQUIREMENTS

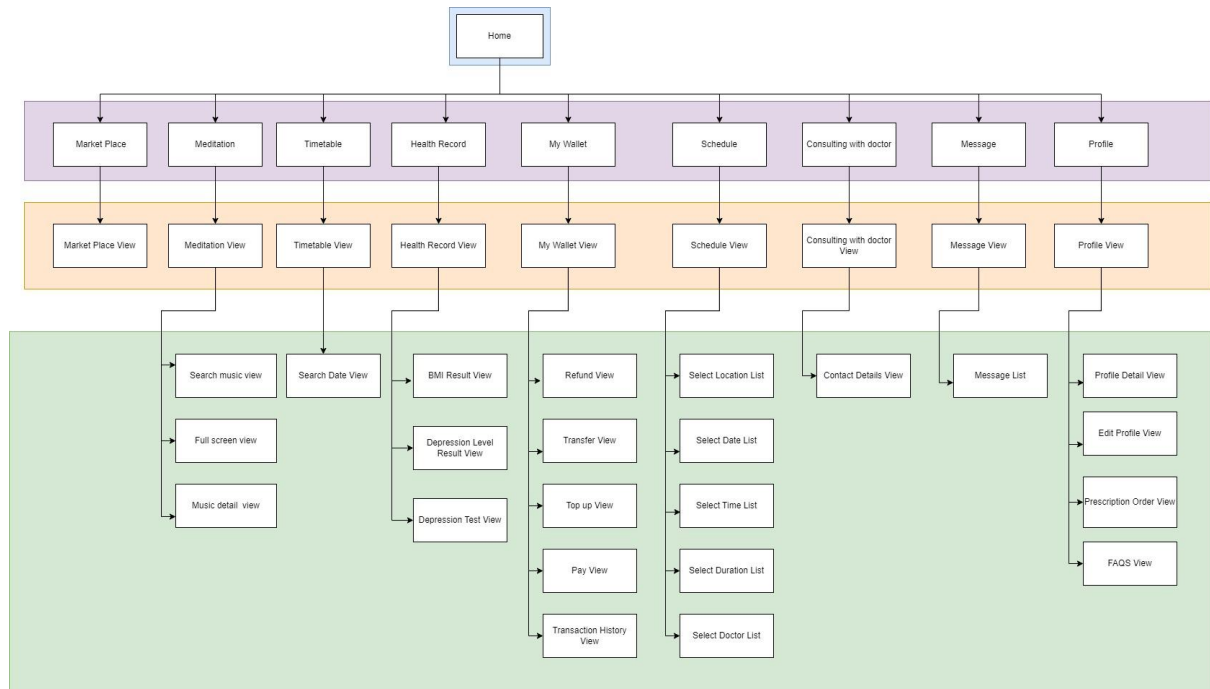
Non-functional requirement (NFR) is a requirement that specifies criteria that can be used to judge the operation of a system, rather than specific behaviours. It makes applications or software run more efficiently and illustrates the system's quality. Therefore, there are three non-functional requirements we want to achieve in our online consultant application.

First and foremost, the first non-functional requirement is security. It is important to assure all data inside the system or its part will be protected against malware attacks or unauthorised access. For example, all information of users like personal contact, payment methods should be protected and should not be accessible to unauthorised personals. Besides, all authentication tokens should be saved on local device or comparison and need user permission to gain access.

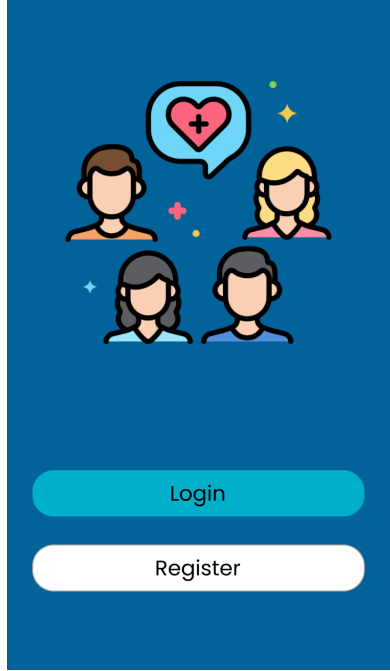
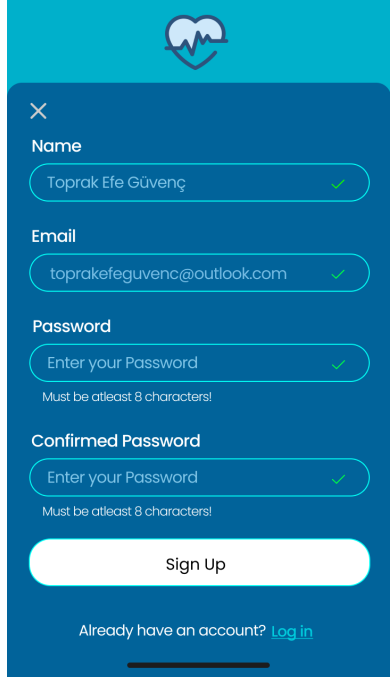
Besides, the second non-functional requirement is usability. Usability indicates how effectively and easily users can learn and use a system. For instance, users should be able to use our application without any guidelines or help from manuals.

Last but not least, the third non-functional requirement is scalability. Scalability assesses the highest workloads under which the system will still meet the performance requirements. For example, when the users' data increases, our application should be capable of handling them without delay by optimising the way storage is done and accessed.


NAVIGATION CHARTS



DRAFT FOR EVERY ACTIVITY

Name	Page
Starting Page	 A mobile app starting page with a blue background. At the top, there are four stylized user avatars (two men and two women) arranged in a circle, with a speech bubble containing a heart and a plus sign above them. Below the avatars, there are two buttons: a blue 'Login' button and a white 'Register' button with a blue outline.
Sign Up Page	 A mobile app sign-up page with a blue background. At the top, there is a small icon of a heart with a pulse line. Below it, there is a close button (X). The page contains four input fields: 'Name' (filled with 'Toprak Efe Güvenç'), 'Email' (filled with 'toprakefeguvenc@outlook.com'), 'Password' (filled with 'Enter your Password'), and 'Confirmed Password' (filled with 'Enter your Password'). Each input field has a green checkmark on the right. Below the 'Password' and 'Confirmed Password' fields, there is a small text提示: 'Must be atleast 8 characters!'. At the bottom, there is a white 'Sign Up' button with a blue outline. Below the button, there is a link: 'Already have an account? Log in'.

Sign In Page



Welcome Back!

Please login to continue

Email

toprafegeguvenc@outlook.com

Password

Enter your Password

Forgot Password?


Login


Home Page

Welcome Back!


Best Friend of the Soul

Register now







Meditation



Timetable




Health Record



My Wallet

HOME

SCHEDULE



MESSAGES

PROFILE

Schedule Page

Book Appointment

Select Location

Select Date

December 2022

Mo	Tu	We	Th	Fr	Sa	Su
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Select Hour

Select Duration

30 minutes

Select Doctor

Write Your Problem

Next

HOME


SCHEDULE

MESSAGES

PROFILE

Chat Page

←



Dr Alvin
online

24/11/2022


3:00 PM

3:05 PM

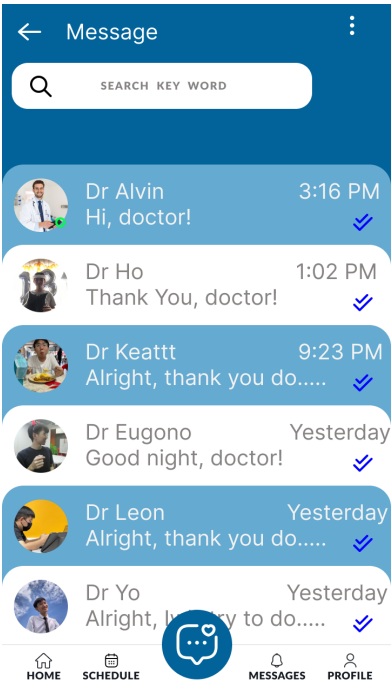
3:10 PM

3:15 PM

3:55 PM

 Hi, doctor!

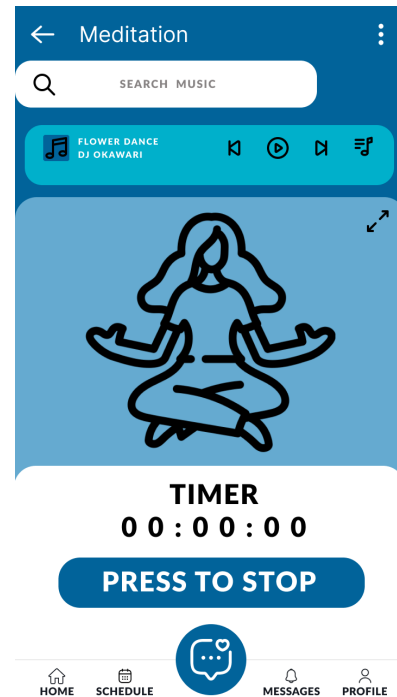
Message Page



Profile Page



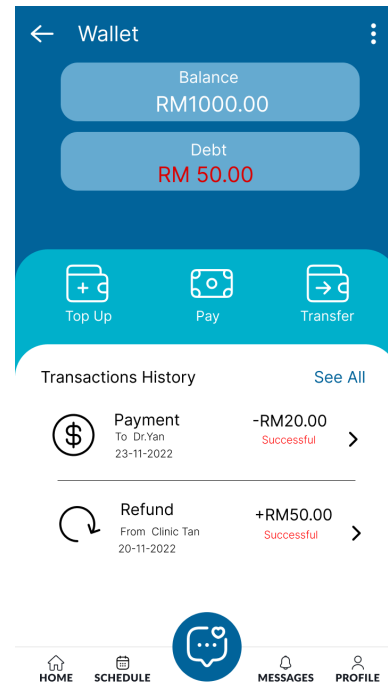
Meditation Page



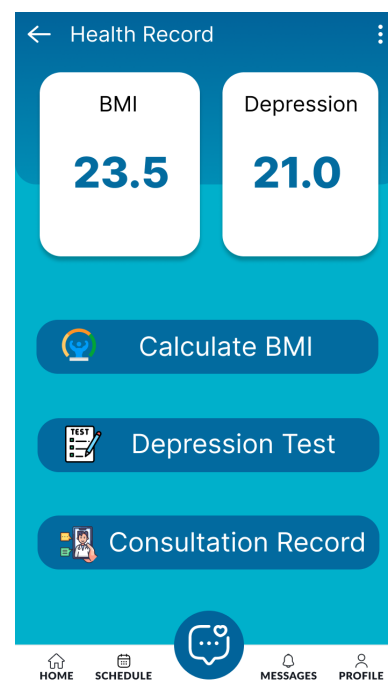
Timetable Page



E-Wallet Page



Health Record Page



TIMELINE AND MEMBER'S RESPONSIBILITIES

No	Activity	Week											
		1	2	3	4	5	6	7	8	9	10	11	12
1.	Formation of team												
2.	Brainstorming idea												
3.	Business analysis												
4.	Preparing group checkpoint assignment												
5.	Develop the prototype												
6.	Preparing proposal												
7.	Code implementation												
8.	Testing Program												
9.	Compile source codes												
10.	Preparing for final report												
11.	Preparing for demo												

Name	Responsibilities
ENG JUN CHENG	<ul style="list-style-type: none"> Performing business analysis Developing prototype Preparing navigation chart
HO KAI CHONG	<ul style="list-style-type: none"> Developing prototype Preparing proposal Planning for the modules of app
TAN JIAU YAN	<ul style="list-style-type: none"> Developing prototype Preparing group checkpoint Preparing non-user requirements
NG JUN BIN	<ul style="list-style-type: none"> Developing prototype Preparing proposal Identify target group
TAN GENG CHENG	<ul style="list-style-type: none"> Developing prototype Performing competitor analysis Preparing for user requirements

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