



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

SCSV 2113

HUMAN COMPUTER INTERACTION

(Session 2018/2019 Semester 1)

Project part IV – Paper Prototyping User testing

Submitted to

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Submitted By

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- ❖ User Analysis.
 - A. User's Persona

The following is personas (4 personas) of our targeted users, which are students (2 personas) , staff (1 persona), and people outside UTM (1 persona).

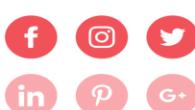
Ahmed



Age
18 to 24 years

Highest Level of Education
Student in UTM

Social Networks



Industry
Computer Science

Preferred Method of Communication

- Phone
- Email
- Text Messaging
- Social Media
- Face-to-Face

Ahmed is an outgoing person, he loves talking to people, any method of communication is fine by him.

Goals or Objectives

Excel at his studies & make his family proud.

Medical Profile

Ahmed is physically healthy, but his teeth are in a bad state since childhood. So Ahmed regularly visits the dentist to do check ups on his teeth.

Frustrations

Ahmed is very impatient, he hates to wait for long periods.

How Would MediCare Benefit Ahmed?

MediCare offers "Set Queue" option, which allows the user to book an appointment and the application would tell them when exactly is their appointment. Since Ahmed is impatient, he can now simply book an appointment through the application and he does not need to wait for the long queue at the health center, he can just come at the time specified.

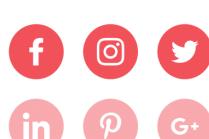
Aisha



Age
18 to 24 years

Highest Level of Education
Student in UTM

Social Networks



Industry
Computer Science

Preferred Method of Communication

- Text Messaging
- Social Media
- Email

Goals or Objectives

- Aisha wants to have the most out of her university experience.
- Aisha also wants to be a good programmer.

Medical Profile

Aisha is healthy. She has no illness.

Frustrations

- Aisha hates going to the hospital, she rarely visits the doctor.

How Would MediCare Benefit Aisha?

Since Aisha does not like going to the hospital for any check ups, she can use MediCare to check her symptoms if she was not feeling okay, as MediCare provides a "Health Care" option in order for her to tell the app what she's currently feeling, then the app would give her a list of the possible illness she has according to her symptoms.

Saeed



Age
55 to 64 years

Highest Level of Education
Doctorate

Industry
Computer Science

Preferred Method of Communication

- Face-To-face
- Phone
- Email
- Text Messaging

Goals or Objectives

Dr. Saeed hopes he can inspire his students in achieving more.

Medical Profile

Dr. Saeed has epilepsy due to a severe head injury. He has to always take his treatments, because not taking his medications can affect him badly.

Frustrations

Dr. Saeed is always busy with his job and students, so he often forgets about himself and his health. He hates being forgetful and he doesn't know how to solve his problem.

How Would MediCare Benefit Dr. Saeed?

In order not to forget his medications, Dr. Saeed can use MediCare. MediCare has "Set Pill Reminder" in which it would allow Dr. Saeed to set a reminder on whatever time he wishes on his mobile phone.

Amira



Age
45 to 54 years

Highest Level of Education
Bachelor's degree

Industry
Bank

Preferred Method of Communication

- Phone
- Email
- Face-To-face

Amira is old school, she prefers keeping everything as real as possible.

Goals or Objectives

Provide a good & stable life for her 2 children.

Medical Profile

Amira is getting older, she is in her 40's. She needs to do check ups regularly with a doctor for breast cancer.

Frustrations

- Amira gets very worried when she's in an unknown or a new place.
- Amira also doesn't like getting lost.

How Would MediCare Benefit Amira?

Amira is always worried about her health, so she usually do check ups. Lucky for her, UTM's Health Center is very close to her work place. But almost always, she gets lost in UTM because she doesn't know our university well and she doesn't know anyone working or studying there. MediCare can help Amira in finding her way to UTM's Health Center, as MediCare has "Maps & Navigation" option in the application. Amira can simply press on the button, and the application will guide her.

B. Task Scenarios

I. Ahmed

A. How to use the “Set Queue” option

- User Goal

Ahmed wants to visit the dentist without having to wait for his turn.

- Tasks

1. Open the MediCare application.
2. Select a preferred language.
3. Sign in using username & password provided by UTM.
4. Click on option “Set Queue”.
5. Define the issue or the reason of visiting.
6. The app responds by giving Ahmed a queue number and the time where Ahmed should be there.

- Rewrite the task list

Ahmed as an impatient person he doesn't want to wait for his turn in the clinic, he also has classes to attend the same afternoon so he doesn't want to miss his classes by going to the clinic and wait there to check in and get a queue number. He logs into the MediCare app. He clicks on the “Set Queue” option. He then would type the reason of visit or the issue he has into the text field provided. The order would then go to the health center. The health center would review the order and book him an appointment. Then the application would return this booked appointment to Ahmed showing the time and queue number.

B. How to use the “Health Care” option (Track Your Fitness Lifestyle)

- User Goal

As a physically healthy person, Ahmed wants to always check how his health is going.

- Tasks

1. Open the MediCare application.
2. Click on option “Health Care”.
3. Click on option “Track Your Fitness Lifestyle”.
4. The app responds by giving Ahmed details of his daily fitness progress.

- Rewrite the task list

In the evening time, Ahmed wants to check how many steps he walked today. He can open the MediCare app, and there is no need to log in again since he did earlier while booking an appointment with the dentist. In the main screen, he would click on “Health Care” option. Then click on “Track Your Fitness Lifestyle”. The app would give him a detailed

description on how many steps he walked today, calories burnt, and the distance he took to run.

II. Aisha

How to use the “Health Care” option (Feeling Something Unusual)

- User Goal

Aisha prefers not to go to the health center, but she's been not feeling well.

- Tasks

1. Open the MediCare application.
2. Select a preferred language.
3. Sign in using username & password provided by UTM.
4. Click on option “Health Care”.
5. Click on option “Feeling something unusual”.
6. Write the answer to “What are you feeling?”
7. Click submit.
8. The system provides a list of “Suspected diseases”.
9. Click next to read more about the suspected diseases. (optional).
10. Book an appointment (optional).

- Rewrite the task list

Aisha's not feeling well this morning. She cannot concentrate, she has a sore throat and a runny nose. Apart from the fact that she hates going to the hospital, she is also too tired to go. She can log in into the MediCare application. She would click on the “Health Care” option. Then she would click on “Feeling Something unusual”. A question would pop up on her screen “What are you feeling?” that she would type in her symptoms. Then a list of suspected illnesses would appear according to her symptoms. She then has the option to read more about the illnesses through the app and also book an appointment.

III. Dr. Saeed

A. How to use the “Set Pill Reminder” option. (Register New Pill)

- User Goal

Dr. Saeed wants to not forget his medication again, but in the middle of life stressors, he often does.

- Tasks
 1. Open the MediCare application.
 2. Select a preferred language.
 3. Sign in using username & password provided by UTM.
 4. Click on option “Set Pill Reminder”.
 5. Click on option “Register New Pill”.
 6. Enter information on the medication (medicine type, name, and dose amount etc)
 7. Turn on the reminder.
 8. Press “Save”.
 9. A screen would come up on his phone “Pill successfully registered & reminder is on”.
- Rewrite the task list

Dr. Saeed has epilepsy and he often forgets to take his medications, as any other illness, not taking your medications regularly can affect the patient in a bad way. He can log in MediCare app. He would click on “Set Pill Reminder” option. He would click on “Register New Pill” since his medication is not registered by him yet. He would enter details about his medication accordingly. Then he would turn on the reminder for the medication newly registered and press “Save”. The reminder would then go off on the specified time by Dr. Saeed to remind him about his medication.
- B. How to use the “Set Pill Reminder” option. (View Existing Pills)
 - User Goal

What if Dr. Saeed’s doctor told him to stop taking his medication? Or if Dr. Saeed’s doctor told him to change his consumption time?
 - Tasks
 1. Click on option “Set Pill Reminder”.
 2. Click on option “View Existing Pills”.
 3. A list of already registered pills would appear on the screen.
 4. Choose a pill to edit then click “Edit Pills”.
 5. Two options would appear, “Remove Pill” or “Change Consumption Interval”.
 6. The app would allow Dr. Saeed to do his changes.
 7. The app would send a confirmation message of the changes.
 - Rewrite the task list

Say Dr. Saeed wants to remove Panadol pills from his medication list & change consumption time for his epilepsy medicine. Dr. Saeed would open the MediCare app to view the main screen, there is no need to log in again since he logged in while registering his pills. He would click on "Set Pill Reminder". He would click on "View Existing Pills". A list of already registered pills would appear on the screen. Dr. Saeed would choose Panadol then "Edit pills". Two options would appear, "Remove Pill" or "Change Consumption Time". Dr. Saeed would press on "Remove Pill" in order to delete Panadol from his medication list. The app would then send a confirmation message "Your pill has been successfully removed"

For Dr. Saeed to change consumption time, he would follow the same procedure until the two options "Remove Pill" or "Change Consumption Time" appear on the screen. Dr. Saeed would click on "Change Consumption Time". He would choose his preferred time and enter it in the application. He would then press "Save". A confirmation message would appear "Pill successfully registered and reminder is on".

IV. Amira

How to use "Maps & Navigation" option.

- User Goal

Amira is concerned about her health, but she often gets lost on her way to the health center.

- Tasks

1. Open the MediCare application.
2. Select a preferred language.
3. Sign up
4. Click on option "Maps & Navigation".
5. Click on option "Register New Pill".
6. Enter location information on the app (city, state, address etc.)
7. Click on the check button.
8. A list of nearby hospitals would appear on the screen.
9. Amira would choose one of the hospitals.
10. Click on the next button to view the map.

- Rewrite the task list

Amira's breast cancer check up is today. She plans to go any nearby clinic, but it's usually UTM's Health Center since it is the closest one. She often gets lost on her way there and that could make her lose her turn to someone else. She also does not know anyone studying or working there. Amira can open the MediCare app. She then would sign up since she is not a

member of UTM. After signing up, she would click on “Maps & Navigation” option on the main screen. The app would then ask her to enter her current location, for example she’s going there from work, she would enter the address of her workplace. According to the address she gave, a list of nearby hospitals would appear on her screen. She would then choose any of which then click on the next button to view the map.

❖ Task Analysis and User Observation

A. How Does the Current System Works?

The normal procedure to take in the health center is as follows:

First, the patient has to go to the Health Center, which can be troublesome. The patient may be too tired to go to the Health Center or has no method of transportation.

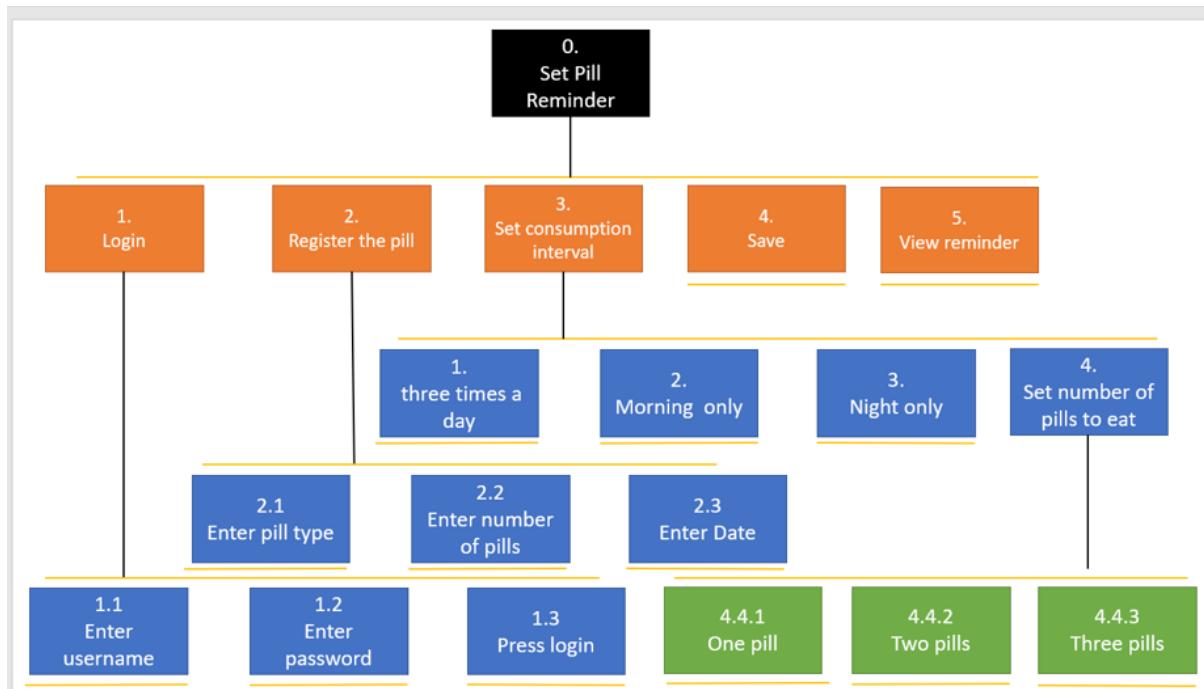
When the patient arrives at the Health Center, they have to first check in using their matric cards for students and staff. After checking in, the patient has to wait for an unspecified time for their turn, may be few minutes or hours. The patient may have other things to do or have classes to attend, that can make the patient frustrated.

After meeting with the doctor, the doctor might give the patient a prescription if needed on top of any medical advices. The patient would then go to the pharmacy, which is also in the same health center. The patient would take a ticket number and wait more. When finally the patient's turn come, the patient would give the pharmacist the prescription and the pharmacist would give the patient their medications.

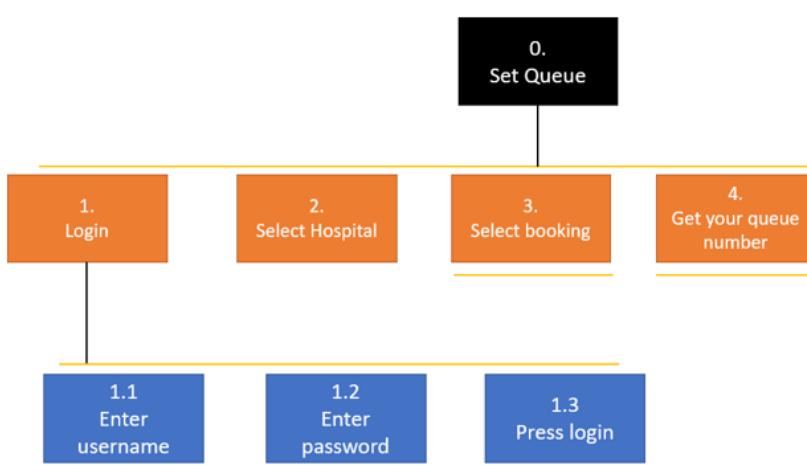
The frustrations that can a patient have during this procedure are mainly having to go to the health center and waiting for an unknown time. Currently, UTM's health center has no application or online system a patient can refer to, therefore our group has decided to fix the 2 issues that can annoy patient and add more features.

B. MediCare Hierarchical Task Analysis

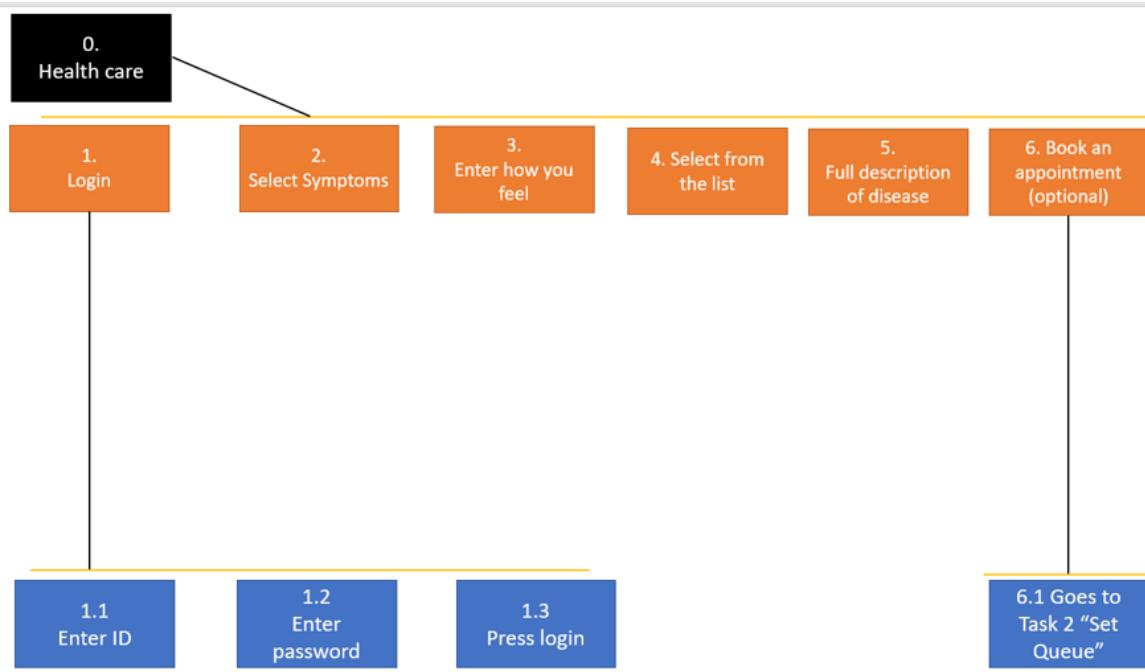
- Task 1: Setting a reminder for the patient to remind them of their medication



- Task 2: Taking a turn through the app to meet the doctor.



- Task 3: Tracking physical well being and health.



- Task 4: Finding a nearby health center according to user's location & view the map.

