

Project – Low Fidelity Prototype

With the integration of IoT Technology

**ONLINE APPOINTMENT BOOKING SYSTEM FOR UTM
HEALTH CENTRE**

SECP1513-05 Technology and Information System



GROUP 6



GROUP MEMBERS



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01

INTRODUCTION





INTRODUCTION



Health management system that will have the ability to let the students or staff from Universiti Teknologi Malaysia (UTM) be able to book an appointment at UTM Health Centre. This application will be able to connect to the students' IoT devices to display the information collected from the devices .



02

DETAILED STEPS





DETAILED STEPS



Discussions on project part 1 (first discussion)

Date: 21 December 2021

Time: 4:30p.m - 6:00p.m

Platform: Google meet and WhatsApp

- Discussed the selection of Industrial Revolution Technology, created a problem scenario, discussed problem solution and system for development.
- Task assignment for each part, discussion and understanding on AWS architecture for the project.
- Complete assigned tasks on your own free time.
- Assigned task after discussion to complete fully :
 1. Introduction - Muhammad Afiq Azmi
 2. Contents of report (potential client, selection of IR4 technology, problem, solution) - Puteri Nur Alisa
 3. Architecture planning and design - All
 4. Conclusion - Muhammad Ameerul Hadzim





DETAILED STEPS



Discussions on project part 1 (second discussion)

Date: 23 December 2021

Time: 4:00p.m - 6:00p.m

Platform: Google meet and WhatsApp

- Discussion on creating and planning AWS architecture.
- Clarification on any misunderstandings or issues faced on each member's part.
- Update project progress

Discussion of project part 1 (final discussion of part 1)

Date: 6 January 2022

Time: 8:00p.m-9:00p.m

Platform: WhatsApp group

- Double check final work
- Finalize document for submission





DETAILED STEPS



Discussion of project part 2 (first discussion)

Date: 10 January 2022

Time: 2:00p.m - 4:30p.m

Platform: Google Meet

- Discussion on project part 2, finishing introduction part, detailed description of problems and solutions, AWS architecture to showcase entire design, discuss business flow diagram, discuss low-fidelity mockups interface.
- Discuss task assignation to complete fully.
- Complete assigned tasks in each own free time.





DETAILED STEPS



Discussion of project part 2 (second discussion)

Date: 17 January 2022

Time: 2:00p.m - 5:00p.m

Platform: Google Meet and Webex

- Discussed any misunderstandings or clarifications regarding assigned tasks.
- Update project progress.
- Discussed video division.
- Proceed to complete assigned tasks.

Discussion of project part 2 (last discussion)

Date: 21 January 2022

Time: 2:30p.m-6:00p.m

Platform: Google Meet and WhatsApp

- Finalize project report documentation
- Double-check report for submission
- Project video compilation



03



DETAILED DESCRIPTION



- Problem
- Solution





PROBLEM



Potential Clients:
Members of UTM

Have to wait in a long
line to go the UTM
Health Centre

Students have a packed
schedule due to their
classes

Spending too long time
in the clinic may have
risk of catching Covid-19

Cases of human error
where when registering

No estimation of waiting
time for appointment





SOLUTION



Health management system which integrates online appointment booking system for UTM Health Centre and health data retrieval

Integration of the proposed system with Iot technologies; the system will connect with users' Iot devices

Appointment can be schedule according to their free time

UTM Health Centre staff can retain and maintain their data online

Online payment system





SOLUTION



Web-enabled devices will collect the data and process the data through the system.

System that can be accessed 24 hours a day, 7 days a week

Make management easier, resulting in increased system efficiency.





TEAMWORKING



Exchange of ideas and
opinions between group
members

Collaborated brainstorming
ideas to come up with the
proposed system

Allocation of tasks to
each group members

Constant communication
through our WhatsApp
group

Help each other and any
team members in need

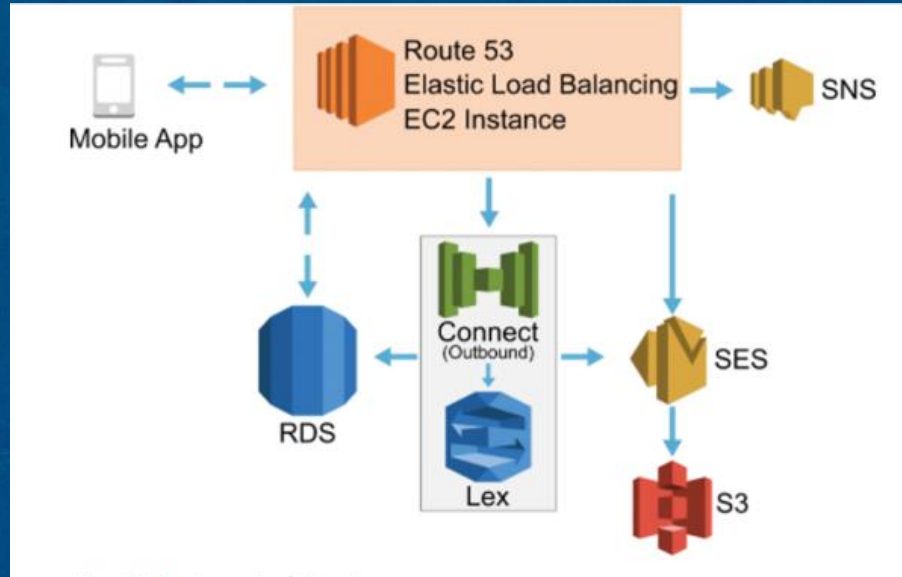
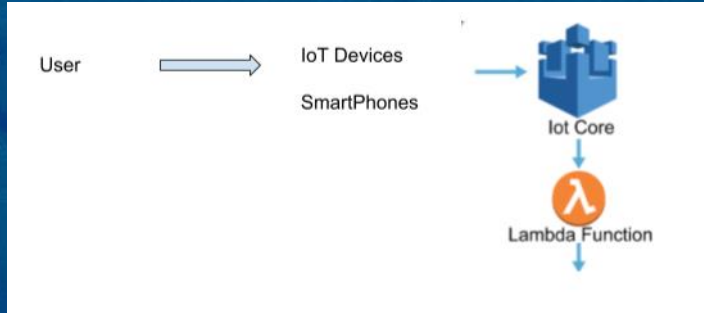


04

AWS ARCHITECTURE



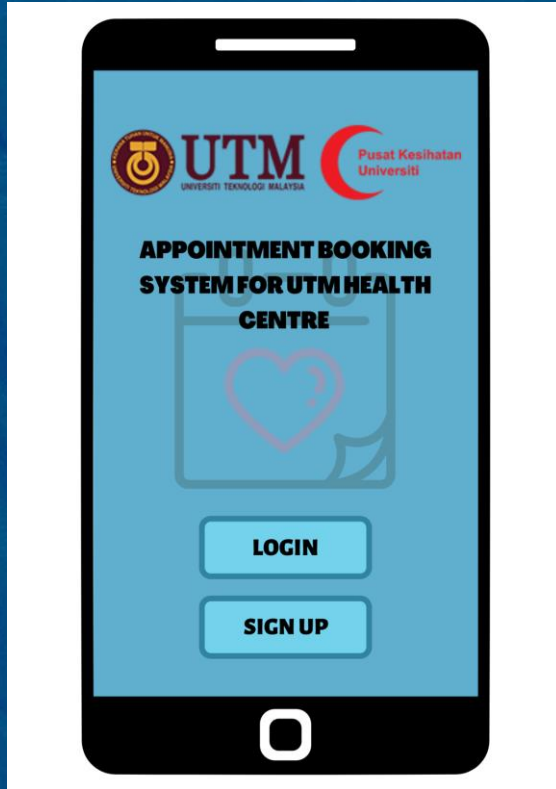
AWS architecture



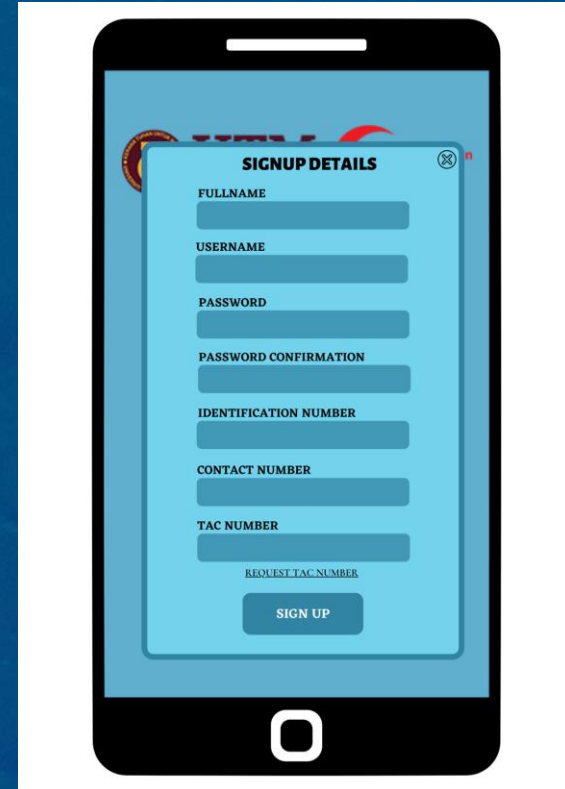
05

LOW FIDELITY PROTOTYPE

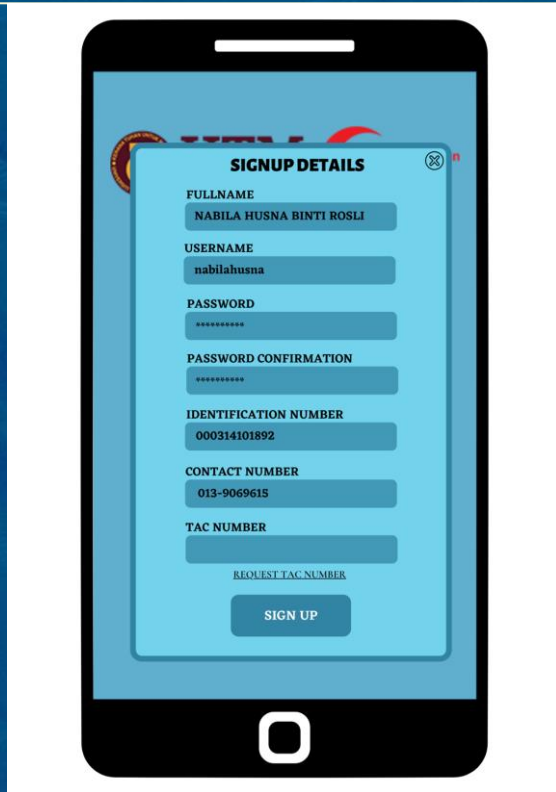




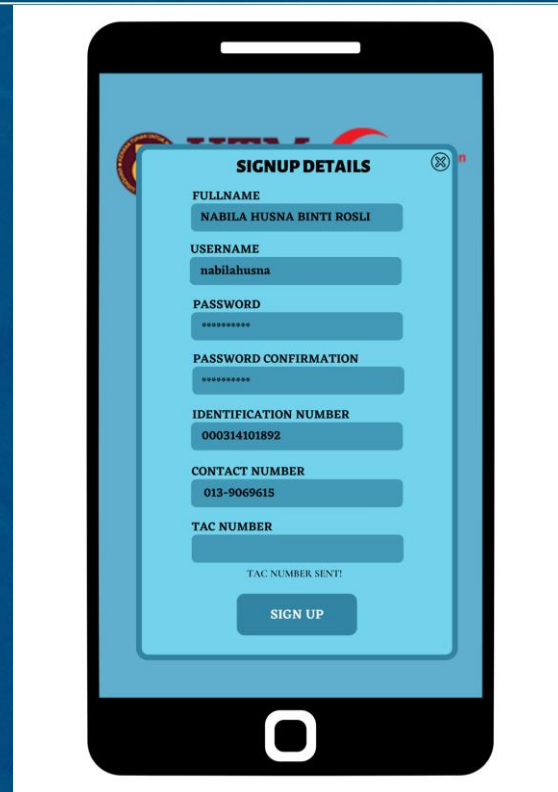
This is the main page before login/sign up into the system.



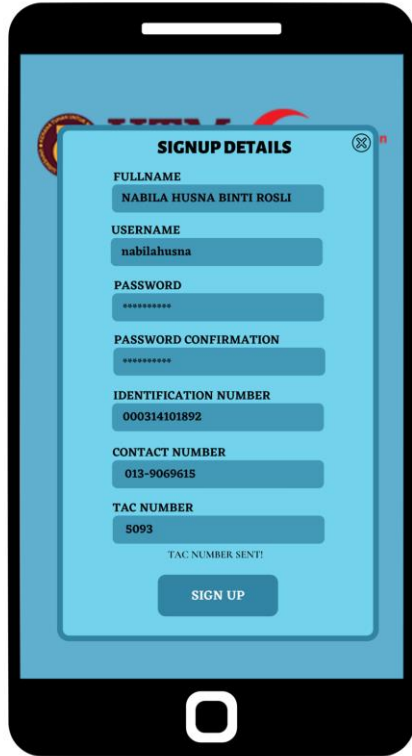
To use the system, user have to sign up with the system. This is the sign up interface page where user have to fill their details.



After filling in their details, user have to request for tac number to connect the application with their mobile phone.

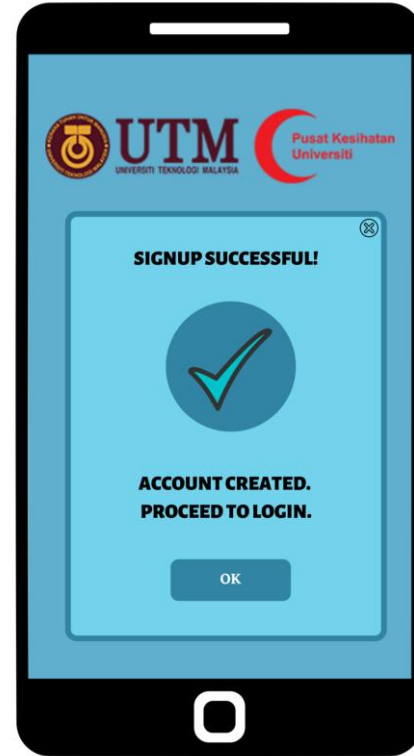


This interface shows tac number has been sent after pressing request tac number,



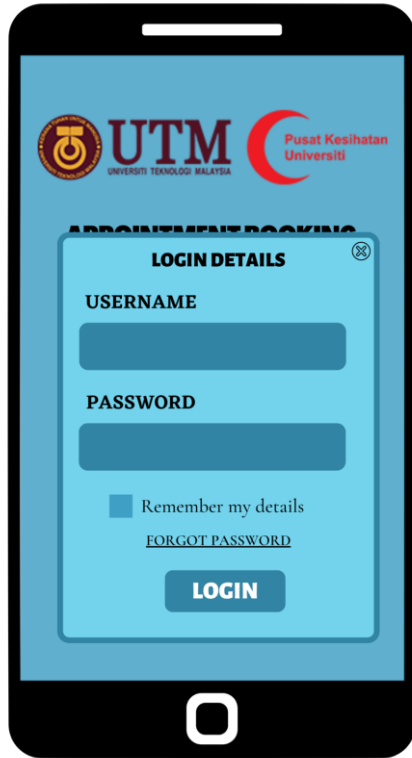
The image shows a smartphone screen with a 'SIGNUP DETAILS' form. The form is titled 'SIGNUP DETAILS' and includes the following fields: FULLNAME (NABILA HUSNA BINTI ROSLI), USERNAME (nabilahusna), PASSWORD (masked with dots), PASSWORD CONFIRMATION (masked with dots), IDENTIFICATION NUMBER (000314101892), CONTACT NUMBER (013-9069615), and TAC NUMBER (5093). Below the TAC NUMBER field, there is a small text 'TAC NUMBER SENT!' and a 'SIGN UP' button.

After receiving tac number, user have to enter the tac number, and click “Sign Up”.

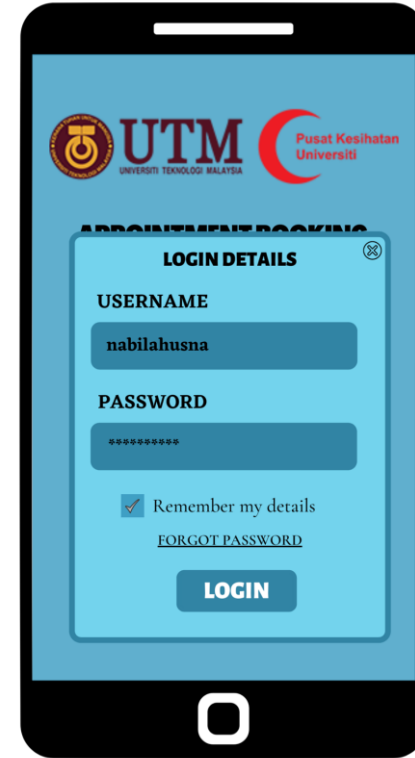


The image shows a smartphone screen with a 'SIGNUP SUCCESSFUL!' confirmation screen. The screen features the UTM logo and the text 'Pusat Kesihatan Universiti'. Below the logo, there is a large green checkmark icon. The text 'SIGNUP SUCCESSFUL!' is displayed at the top, and 'ACCOUNT CREATED. PROCEED TO LOGIN.' is displayed below the checkmark. An 'OK' button is located at the bottom of the screen.

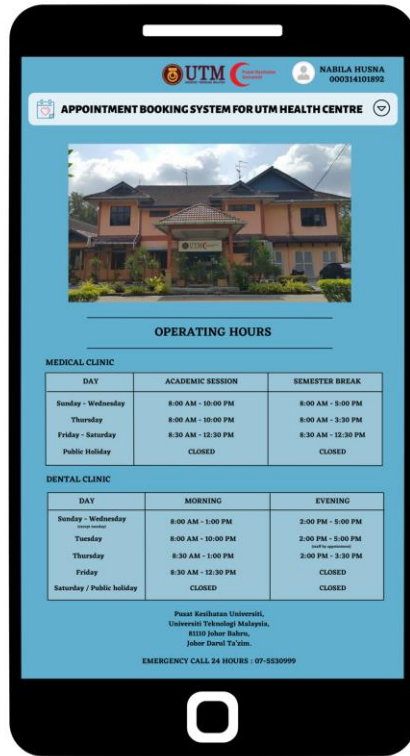
This interface shows that sign up is successful. User can proceed to the login page to use the system.



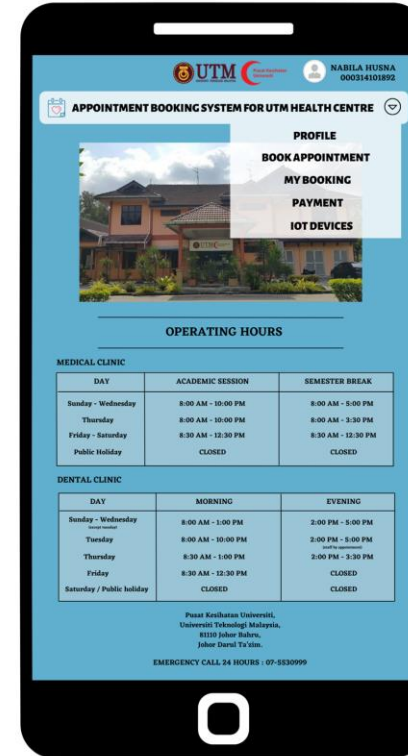
To login, user have to fill in the login details same as the ones they use to sign up.



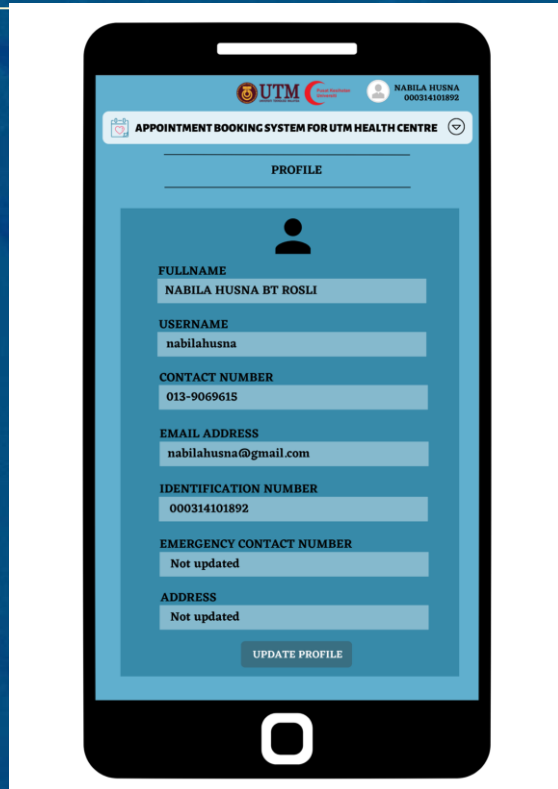
After entering the details, user click “Login” to enter the system.



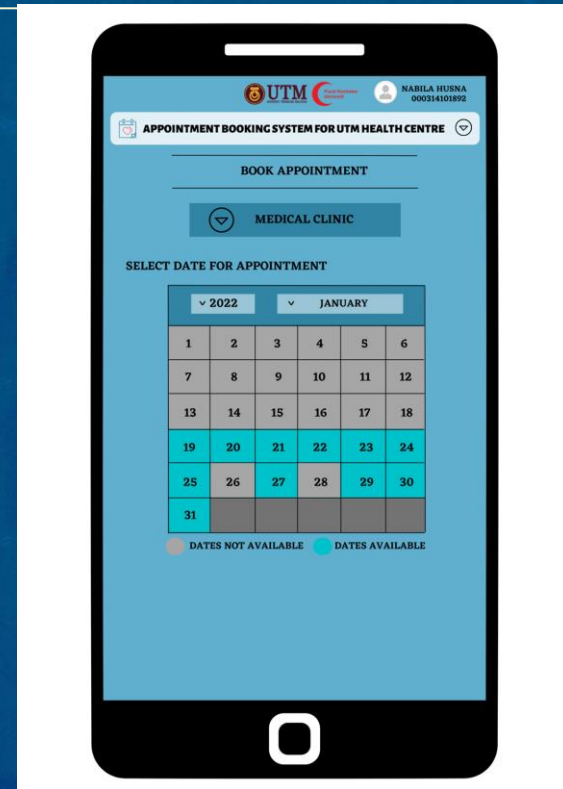
This is the main page of our system. In the main page, it shows the details of UTM Health Centre operating hours, address, and call number.



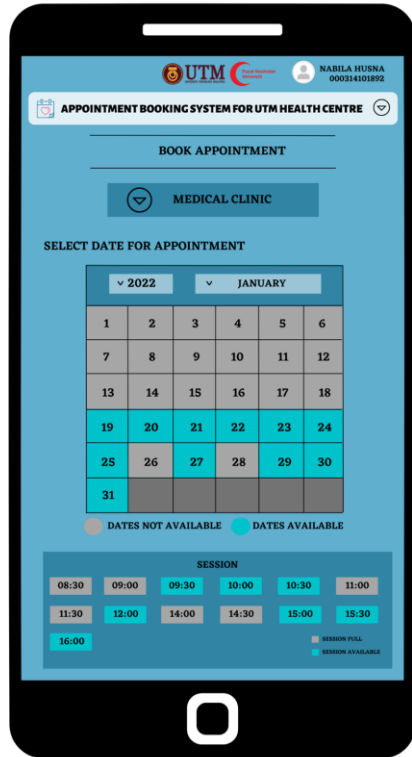
On the button in the nav bar, user can choose selection of option they want to do.



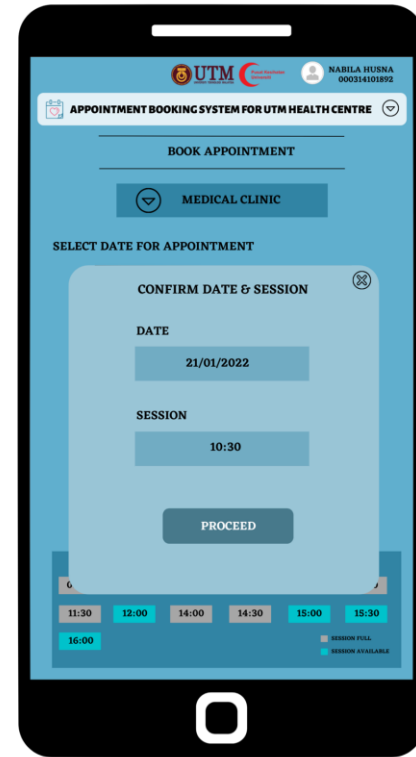
If user select "Profile", the system will direct user to their profile page where the user can choose to update their profile.



If the user select "Book Appointment", the system will direct them to the book appointment page. Here, there are list of dates available for appointment booking. User have to select dates that are available.



Once they select the date, the system will display the session for the selected date. User have to choose the available session.



After selecting the date and session, the system will display the confirmation of the selection date and session. If the date and session is confirmed, the user select "Proceed" to proceed with the appointment.

UTM Universiti Teknologi Malaysia NABILA HUSNA
000314101892

APPOINTMENT BOOKING SYSTEM FOR UTM HEALTH CENTRE

BOOK APPOINTMENT

MEDICAL CLINIC

FILL APPOINTMENT DETAILS

DATE & TIME
21/01/2022 10:30

PATIENT NAME
NABILA HUSNA

IDENTIFICATION NUMBER
000314101892

CONTACT NUMBER
013-9069615

APPOINTMENT REASON

BOOK APPOINTMENT

The system will then display the appointment details form, where the system have automatically update the user details within the form. The user only have to fill in the appointment reason.

UTM Universiti Teknologi Malaysia NABILA HUSNA
000314101892

APPOINTMENT BOOKING SYSTEM FOR UTM HEALTH CENTRE

BOOK APPOINTMENT

MEDICAL CLINIC

FILL APPOINTMENT DETAILS

DATE & TIME
21/01/2022 10:30

PATIENT NAME
NABILA HUSNA

IDENTIFICATION NUMBER
000314101892

CONTACT NUMBER
013-9069615

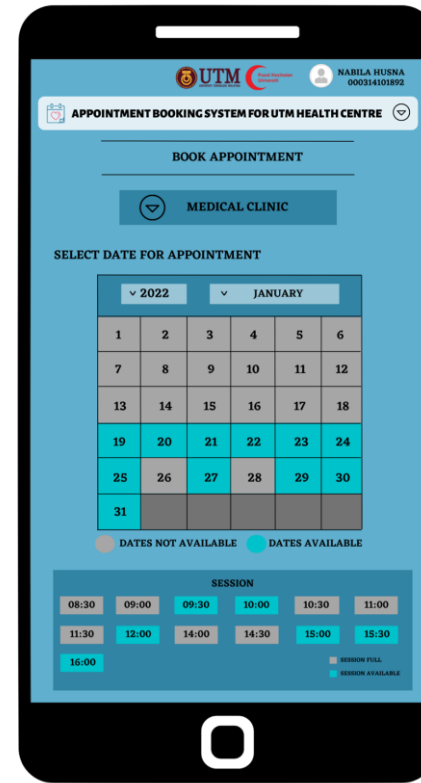
APPOINTMENT REASON
Medical Check-up

BOOK APPOINTMENT

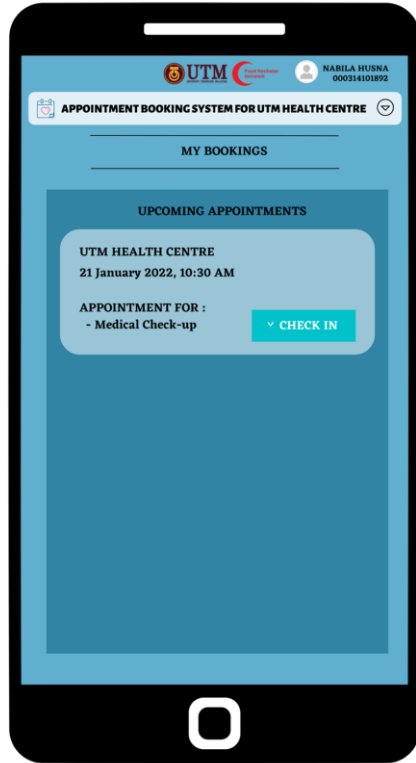
After entering the appointment reason, the user can select “Book Appointment” to book their appointment.



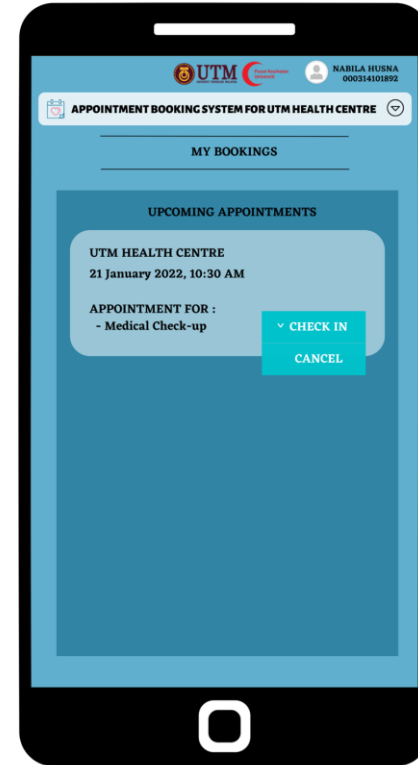
Once the appointment has been booked, the system will display appointment booking successful page, with the appointment details displayed in the page.



The system will then update the session that have been booked by the user to be unavailable.



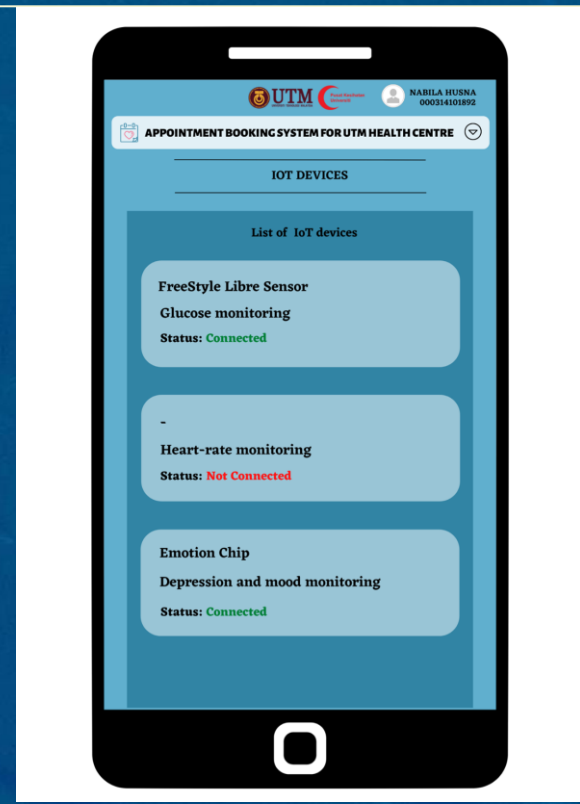
Next, the user can go to “My Booking”, to manage their booking.



The user can choose to “Check-In” once they have arrived at the UTM Health Centre for their appointment to connect the application with their IOT devices or cancel their booking.



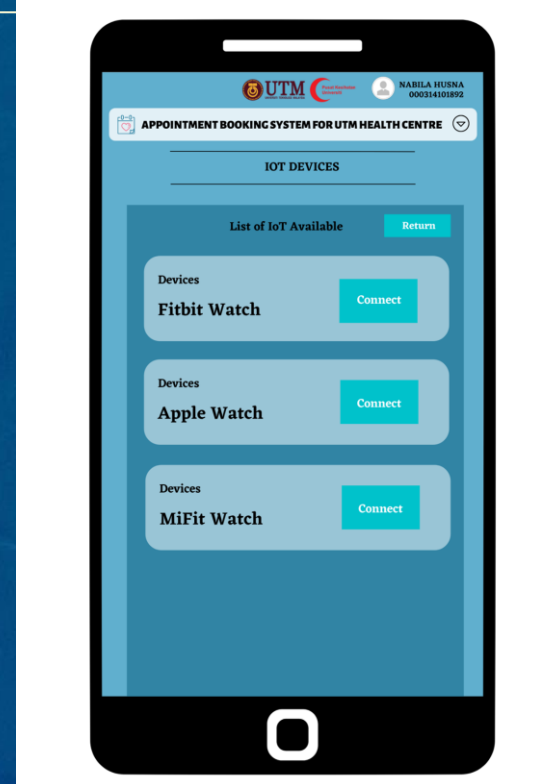
Once the user have selected “Check-In”, the system will display page to proceed updating their details from their IOT devices.



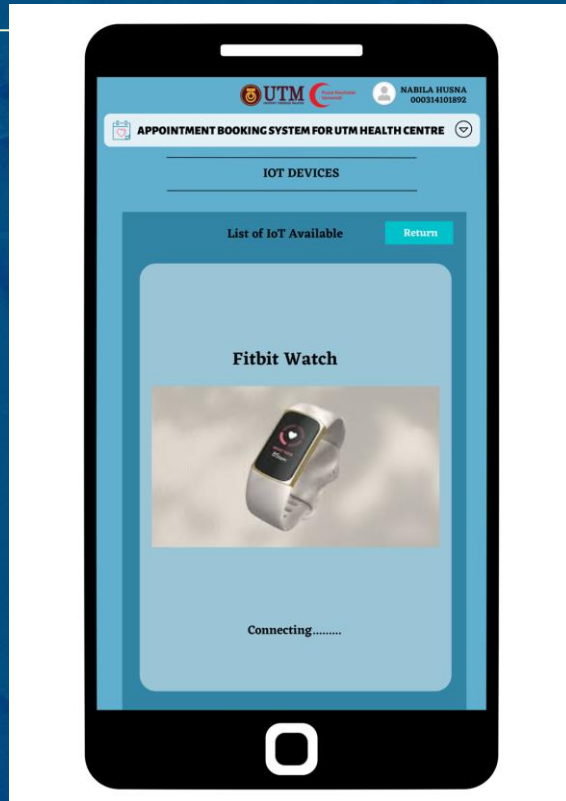
The system then will display the list of IOT devices by the user that is connected or not connected with the system. To connect the function, the user have to select on the function such as “Heart-rate monitoring” function.



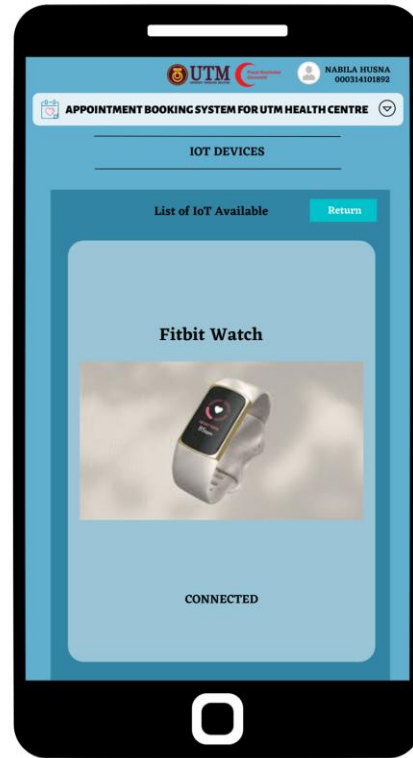
Then, the system will display the Iot device page, where the status is not connected. The user have to select the “Connect” button to connect it to the system.



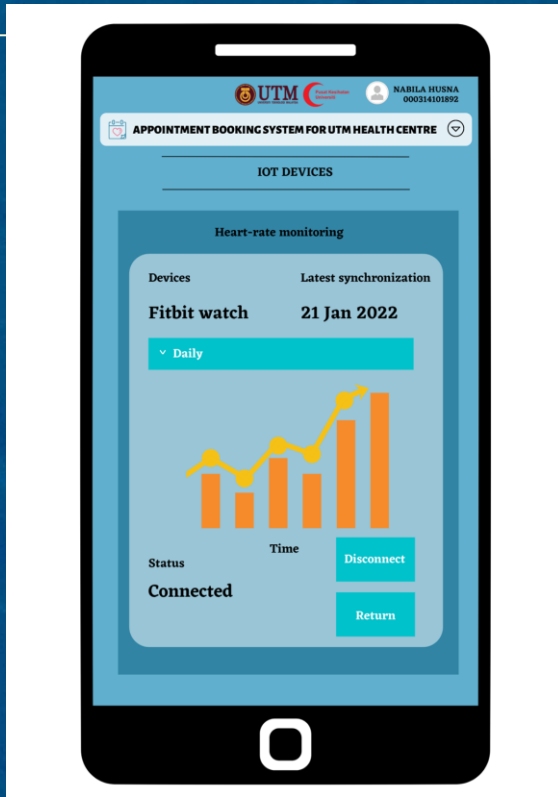
The user then have to choose which device they want to connect it from.



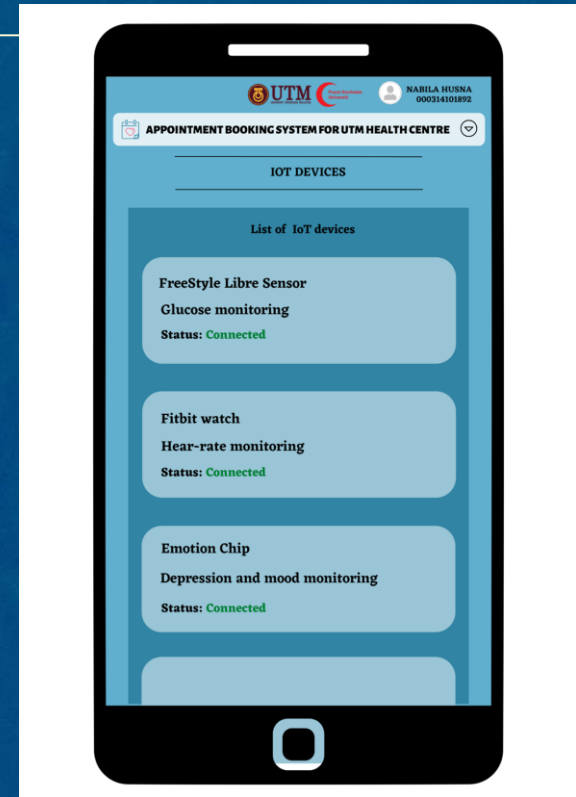
After the user choose respective IoT device, the system will try to establish the connection between the IoT devices and the application



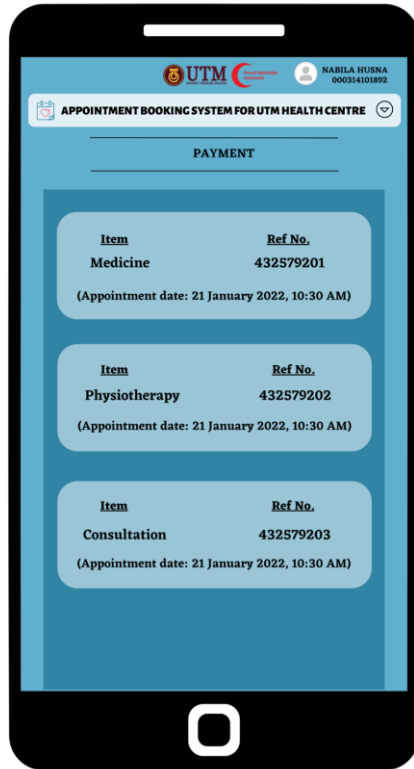
Then, the system and the iot devices will both shows that it is already being connected.



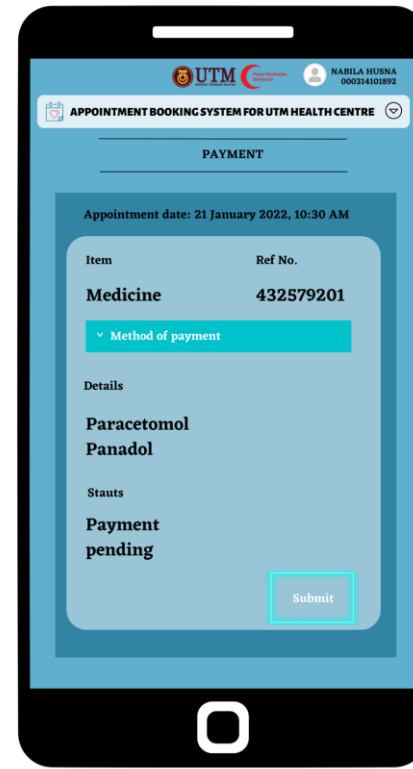
Then, after connecting, the system will display the data collected from the IOT devices regarding the function. The data can be used during the regular “check-up” when user first going for their appointment. Therefore, they could save their time because they no longer need to do the regular checkup.



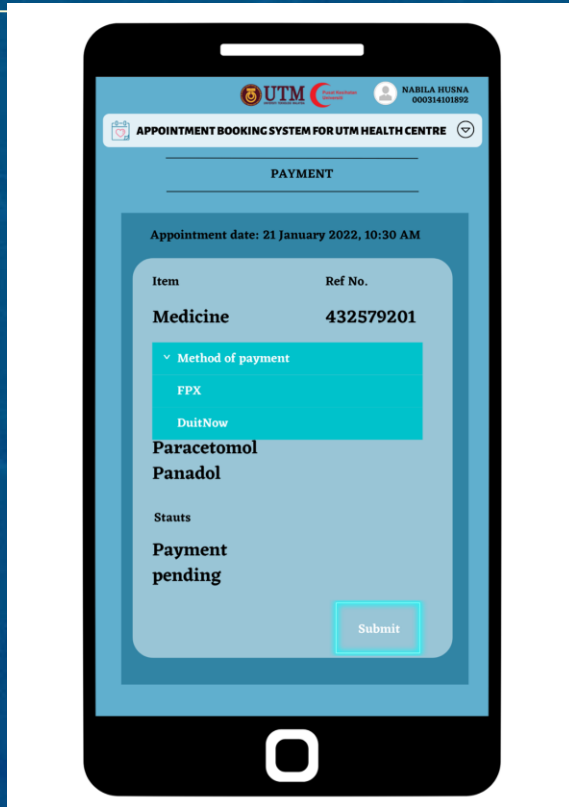
The system will then display that the function is connected to the application.



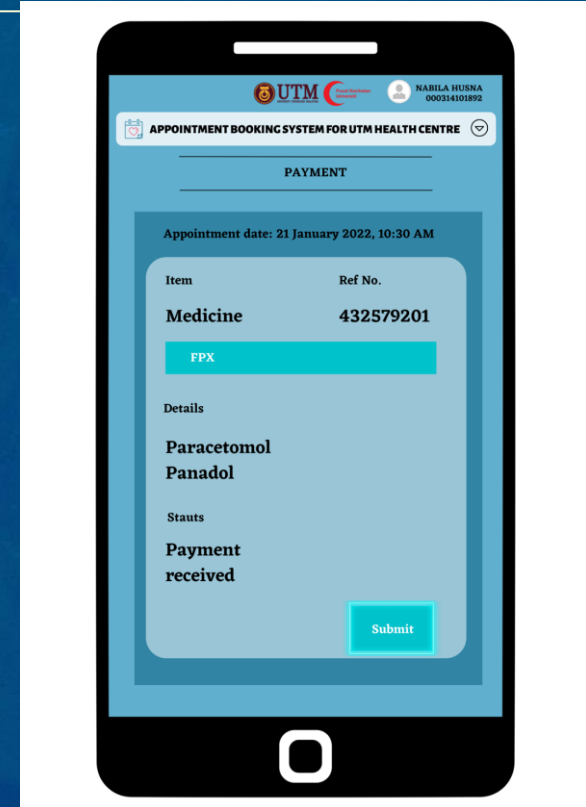
If the user select "Payment", the system will direct user to the payment page where there are list of payments that have to be made.



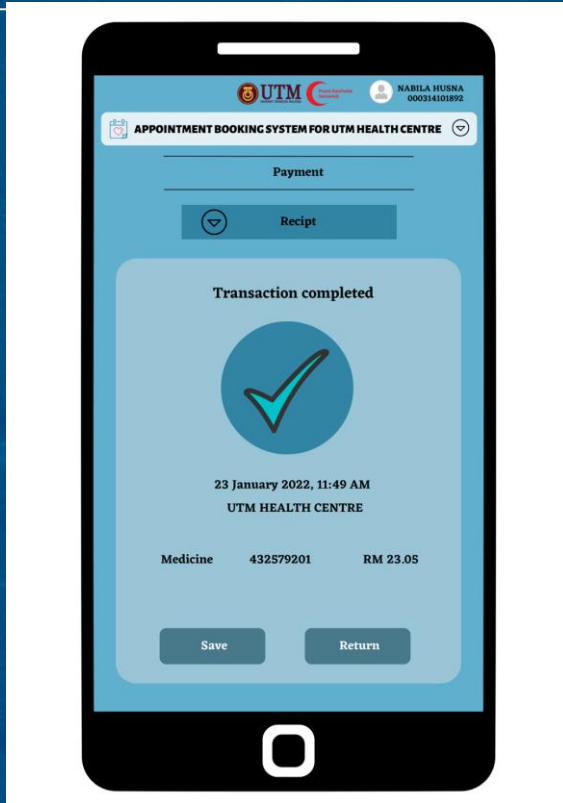
To pay, the user have to select on the payment details and the system will display the page to settle their payment.



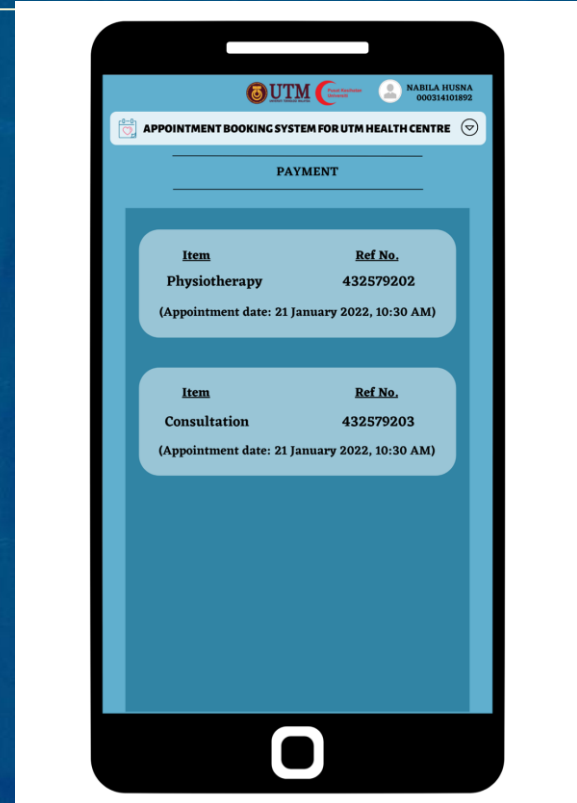
The user can select the payment method preferred.



Once they have selected the payment method, the system will direct user to the third party page to settle their payments following their selected payment method.



When the payment is processed and successful, the system will display the “Transaction Completed” page and it’s receipt.



Then, the system will update their payment list.



THANK YOU