Sri Lanka Institute of Information Technology

B.Sc. (Hons) in Information Technology

Specialization in Software Engineering

User Experience Engineering - SE3050

Assignment 4 – User Research Plan

Group ID: 2021S1_JUNE_WD_01

Group Details

Group ID   :   2021S1_JUNE_WD_01

Project Application   :   E channeling App

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Introduction

The project that we selected is a health and care app. It is known as E-channeling. E-channeling is basically the pioneer software development and ICT service provider to the Healthcare industry in Sri Lanka. The app mainly provides Doctor Channeling System and Service. Patients can get access to doctors within Sri Lanka with a chat option, get a running number, medicine/lab services, medical supply for the driving License and facilitate information about the places where PCR test is happening. Therefore it is an easy, convenient, cost effective and time saving way for channeling doctors/consultants in Sri Lanka.

We would like to assess if the E-channeling app is really usable to the user, what is the user's experience on this app. Therefore, we have launched a user research and a plan to test the user's response on the app. In here the testing tools we have used was the questionnaire and Interviews. We have spoken with the users about the app by each member at the interview and there user's talked about their like and dislike.

The main reason to do a user research is to observe their experience on this app because we would like to acknowledge the failure points and blocking points of E- channeling app and improve them when we are going to rebuild the application. We have done a usability testing as well. There we tested that how easy a design is to use on group pf representative users and their behavior.

Ultimately our goal is to give a better user experience with attractive features and users convenient. If this is a success, then the we could be able to work with the E-channeling organization and help them increase their sales to achieve their business goals and the consequences will be much satisfying. And also, the users will use this app as an essential app on their mobile phone because the users may get more benefits form the app. The users benefits are getting medicine to the prescription easily, chat with the consultants/doctors whenever they want, drug delivery services.

Test Objectives

- Understanding of fail-points/blockings faced by the users when they use E-channeling application.

- Understanding the level of user friendliness of user interfaces.

- Identifying the plus points and negative points according to the users on our application.

- Evaluating pain points the users experience when using our application.

- Understanding improvement areas in the application to survive at the market.

- Learning about competitive websites/apps that users may use to fulfil healthcare needs.

Methodology

With the objective of investigating user experience of E-channeling mobile application, the two users were chosen as the sample of the study. This study is basically based on the user experience data obtained from the interview, video recording and questionnaire distributed among the two users. The respective questionnaire was designed to know their user experience of E-channeling mobile app user interfaces and functions. The interview and video recording included thirteen questions on user experience regarding E-channeling mobile app. The interview and video recording were done via Microsoft teams. The online data survey questionnaire included both open ended and closed ended questions.

Interviewing

The interview was done via Microsoft teams.

➢ **Interviewing - Mr. Ruchira Liyanage**

- What was your experience at the home page?
- Was it easy or hard to navigate to other sections from home menu?

It was difficult. When I open the app, it didn't navigate to the home menu. At first it was an empty page. So I waited for few minutes but nothing happened. My internet connection was also fine.

Then I reloaded the app and again started from the beginning. That time it worked. But it was not easy to navigate to other sections from home menu with very small buttons. Texts also were very small.

- What do you think about the section that you can get the membership for the registration?
- Which type of membership did you take? Was it a lifetime or periodical membership or free membership?

Yes, I took the free membership. I had to enter all the details to register. Then I was able to login. It was helpful to me.

- Did you get a feedback for you lab test results or your prescription? What kind of experience did you take when you uploading and filling the forms?

I did use that facility. I wanted to get a medicine recommendation from a doctor for my lab test result because of that I filled and uploaded the photo of lab test and then after few days I got a response. I liked it. But it took some time to submit. I waited a long time until the submission over.

- Did you contact the E-channeling app's administrative office?
- What do you think about the experience you get?

I was unable to contact the E-channeling center because it did not work. and also, app's about us section would not click. The Words were too small even though the design is great.

- What do you think about the chatting system in the app?
- Did you have any chat with a doctor? was it helpful?

Yeah I had few chats and information were good. But I had some problems during the chat. When I was explaining my medical history to the doctor I wanted to send some documents. But it was not allowed in the app to send any attachments other than texts.

- How was it easy or hard to make an appointment through this app?
- How was the experience of using the app to complete this task?

At first It was hard to find the appointment making form. But after finding it I could be able to make the appointment easily with few steps. And I received an email after making the appointment. But there was no option to see appointments again that I have made. I think it would be better if there will be an option to see the appointment details inside the app instead of check emails.

- Can you easily book time and a venue to take your Covid- 19 vaccine through our app?

Cannot find which dosage can be taken from hospitals. Because even after booking in some hospitals say that only one of the vaccines such as 1st one or 2nd one can be taken.

Please mention the relevant dosage or vaccine clearly in the app. If the staff is not working or absent, please update it on the app because sometimes after going to the hospital

they say that doctors are absent. Cannot do the task easily because colors and order of the interfaces are like messed up.

- Can you easily book a time and a venue to perform PCR tests?

Once the tab is clicked the color of the tab is remained same. Therefore, cannot identify clearly whether the relevant tab is clicked or not.

- Have you ever placed an appointment to get your driving license medical by using this application?

Yes, I have done…

- So, have you faced any difficulties when using the user interfaces to place the appointment?

Yes, When I touch on the 'Driving License Medical' tab, it takes much time to load the screen and appear, but I'm not sure whether I'm on the correct user interface because the driving license medical tab is not appearing as a selected tab and also the appeared driving license medical form title is not visible.

Further, the payment gateway user interface is not clear. Also, the appointment is not successful though the payment is deducted from the account. Moreover, a response is not received whether the payment is successful or not.

- So, what about when you are going to find the channel history. Do you come across any issue?

No, I have used both option 1 & option 2. There are no issues.

- Have you used the option, running number with respect to your appointment?

  Yes, I have.

- What do you think of running number user interface? Is it user friendly or not?

  No, When I am going to fill the form, the entered details are not clearly shown.

➢ **Interviewing - Mr. Imesh Peiris**

- What was your experience at the home page?
- Was it easy or hard to navigate to other sections from home menu?

  not actually it was a complex home menu. First, I had to wait for few minutes to

  see the home page. And um not happier with the appearance either. Buttons were too small and

  it was difficult when touch them.

- What do you think about the section that you can get the membership for the registration?
- Which type of membership did you take? Was it a lifetime or periodical membership or free membership?

  I tried taking the lifetime membership and then it failed the payment. After that there was no contact number to contact the owners and then filled the refund form. Still, I did not get a reply or my refund. App notification received saying "please contact administrator".

- Did you get a feedback for you lab test results or your prescription? What kind of experience did you take when you uploading and filling the forms?

  I also submitted my x-ray. but I uploaded one photo of my x -ray but I did not get the chance to upload clear scanned version of my x-ray. Because I was only able to upload the documents. Therefore, I uploaded many clear photos of my x-ray.

- Did you contact the E-channeling app's administrative office?
- What do you think about the experience you get?

  I hoped that app's contact us section would directly access my email app or the contact app of my mobile phone and also hoped that the E-channeling admin office would be shown just by clicking on the location section, but it did not work. So, I got disappointed.

- What do you think about the chatting system in the app?
- Did you have any chat with a doctor? was it helpful?

I had a chat with a doctor. But it took much time to receive a response. And I had another problem when chatting. It only allows to send texts. There wasn't any option to send attachments.

- How was it easy or hard to make an appointment through this app?
- How was the experience of using the app to complete this task?

Yeah, it was easy. With few easy steps i could be able to make an appointment.

- Can you easily book time and a venue to take your Covid- 19 vaccine through our app?

I could book time and a venue, however. but it was difficult to handle buttons because they were small. Sometimes after bookings and reaching to the hospital they say that only a relevant dosage is given. Therefore, please specify the dosage or vaccine in the app.

- Can you easily book a time and a venue to perform PCR tests?

I could book a time and a venue. But the interfaces are not much friendly.

- Have you ever placed an appointment to get your driving license medical by using this application?

Yes, I have done…

- So, have you faced any difficulties when using the user interfaces to place the appointment?

Yeah, When I am going to select the particular medical institute, I have to move up and down on the screen to select the particular medical institute. It will be better if there is a search box to find it easily. Other thing is when I am going to do the payment, the appeared payment gateway user interface is not much user friendly.

- So, what about when you are going to find the channel history. Do you come across any issue?

No, there are no issues.

- Have you used the option, running number with respect to your appointment?

Yes, I have.

- What do you think of running number user interface? Is it user friendly or not?

No, I don't think so. The interface is poor.

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Video Recording

The video recording was done via Microsoft teams and uploaded on to the Microsoft stream.

Video recording link: **https://web.microsoftstream.com/video/380787f2-899a-4ef4-b3a9-451c5101a236**

Questionnaire

Questionnaire data collection was conducted using a google form during our user research period. We shared the google form link through the WhatsApp and gathered responses from the users and collected their opinions according to their user experience.

Google Form Link:
https://docs.google.com/forms/d/e/1FAIpQLSeccl0FAahIrMyrnm1Rfi43rf1eRT90YANY2QigZB_m1EY3yQ/viewform?usp=sf_link

1st Response:

https://mysliit-my.sharepoint.com/:b:/g/personal/it19184722_my_sliit_lk/ETo6lRYhKpZKiq9OpByQzB0BPCWWbtI6XPegIrSFmiqJow?e=UI6bHK

E-Channeling Mobile
App User Experience

2nd Response:

https://mysliit-my.sharepoint.com/:b:/g/personal/it19184722_my_sliit_lk/EWTVXthGSQNHvoBK6Opvm6MBpDvyuiVJCRYDIijgDL5iJg?e=XYwhi8

E-Channeling Mobile
App User Experience

Participant Profiles

Name	Demography	Location, Date and Time
➢ Ruchira Liyanage	• Position: Software Engineer • Age: 32 years • Marital Status: Married	• Location: No 12/B, Citrus Rd, Horana • Date: 20-08-2021 • Time: 11.00 pm
➢ Imesh Peiris	• Position: Media Presenter • Age: 28 years • Marital Status: Single	• Location: No 12/A, Edward Rd, Colombo 8 • Date: 21-08-2021 • Time: 5.00 pm

User Research - Tasks/Scenarios

After a successful interview with the users of the e-channeling app, all our group members identified the problems they faced in achieving their targets when completing relevant tasks in the app. Those gathered information are combined in the below table.

We informed our participants in the interview that we were going to conduct an interview with a questionnaire before beginning.

No	Task Instruction	Target	Probes
1	• Booking a time and a venue to perform PCR tests.	Successfully booking a time and a venue.	User cannot get an exact idea about the absence of medical officers in the hospital on booked time and venue after reaching to the relevant venue to get the service.
2	• Booking a time and a venue to get a Covid–19 vaccine.	Successfully booking a time and a venue.	Because of small buttons, unmatching color combination and not having a search bar to find the preferred venue to get the covid-19 vaccine, user has to scroll up and down continuously until the relevant hospital is found, and user would not be able to perform booking process easily and smoothly.

3	• Getting a membership to register and then login	Successfully get the membership to register and login	Login form is not user friendly . Color combination does not match. Outdated interface designs are used in the login section. Payment gateway does not work properly.
4	• Uploading the lab test results or the prescription	Successfully upload the files	Allow only to upload one file type. Even after uploading the image ,Does not specify if the upload is successful or not .Cannot ensure if it is actually uploaded. Take long time to submit the form after submitting and It's loading time is lengthy after submitting the form.
5	• Fill the refund form to get the refund	Successfully debit refunded cash to the account	Cannot refund even after filling the form for the refund
6	• View Contact Us information	Successfully perceive the information regarding the e-channeling centers	Contact Us section has small words and Its hard to read. It is not user friendly. Buttons does not work except one button . Long unnecessary explanations are being appeared.

7	• Make an appointment for a channel.	Successfully make the appointment.	Cannot get appointment history details and details of upcoming appointments.
8	• Have a chat with a doctor to get fast medical advises.	Can have a conversation with a doctor and get recommendations.	Cannot send attachments when chatting.
9	• Place an appointment for driving license medical.	Place an appointment successfully.	Not having trust whether the payment is secured or not.
10	• View the channel history regarding the appointment you have placed.	Can view the channel history which user placed.	it takes much time to load the screen and appear.
11	• Check the running number with respect to your appointment	Display the running number with respect to the appointment, correctly.	Cannot see the entered details clearly in the form fields.

Plan for Data analysis

Interviews

According to the information that all our group members received through the interview we could understand different kinds of fail points in the e-channeling app.

Participants of the interview informed us about their negative experiences of using the app. According to their ideas, we mainly concluded that color combination of our app is in a lower level. And also wordings and the architecture in the app is complex. We found that running number interface, contact us interface etc. are not attracted by the users.

Because of those reasons mentioned above we are planning to create those interfaces in a attractive manner. The function of chatting with a doctor, is not effective and takes log time to get a response from a doctor according to the user's views. Therefore, we decided to add features to the chat system where doctor would be persuaded to response to patients' messages immediately.

When considering about the percentages of users' experiences about the app.

- 25% of users agree the app is comfortable with to fulfill their needs,
- 58% of users directly agree that app is not comfortable to use,
- While rest of users fairly agree that app is comfortable to use.

Users Satisfaction On Echanneling App

- App is comfortable
- App is not comfortable
- Average
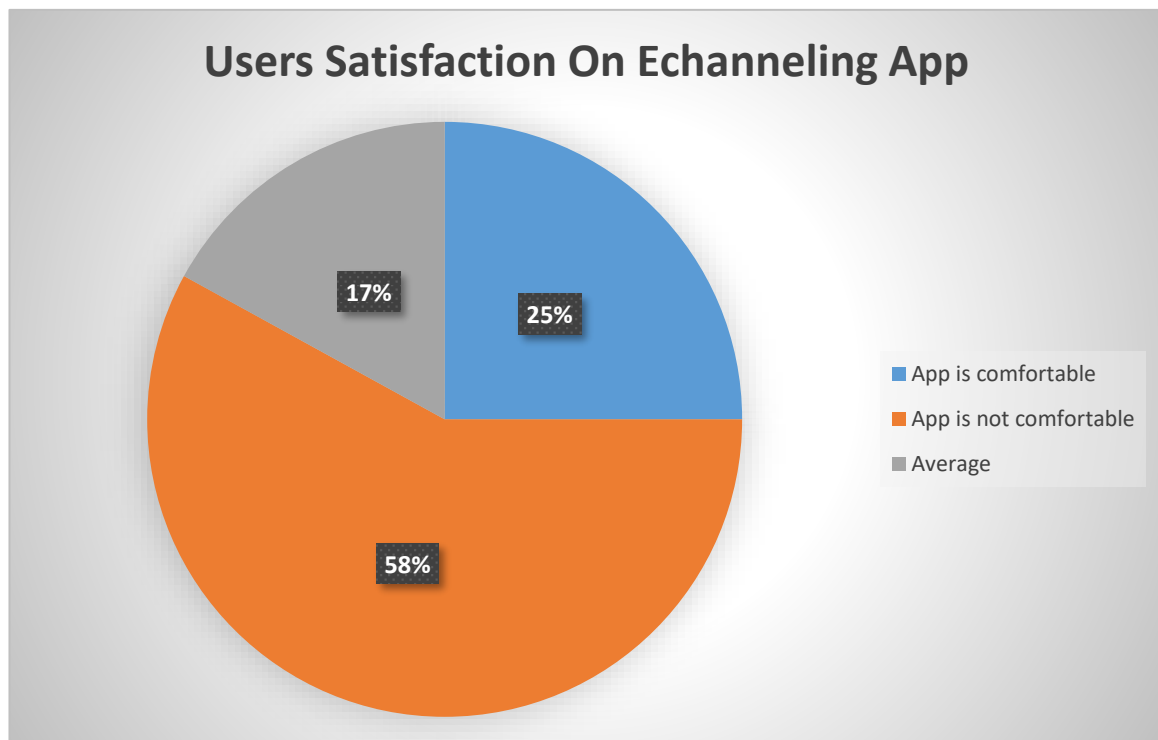
Video recordings

After referring the video recordings, we were confirmed that majority of users are not comfortable with the app.

Even in the facial expressions we could see that they are suffering with the difficulty of handling the app.

Some users clearly mention that buttons are too small to touch while others saying that color combination of the app and wordings irritate their better user experience.
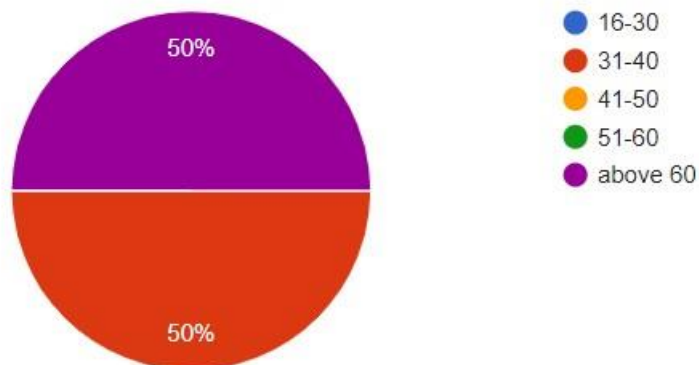
Questionnaires

E-Channeling Mobile App User Experience Survey

2 responses

Publish analytics

What is your age?

2 responses

- 16-30
- 31-40
- 41-50
- 51-60
- above 60

50%

50%

What is your gender?

2 responses

- Female
- Male

50%

50%
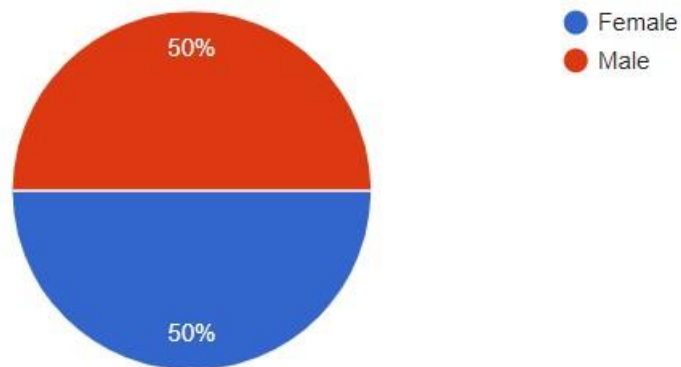
What is your occupation?

2 responses

Civil Engineer

Retired police officer

Would you describe your health as good, fair or poor?

2 responses

- Good
- Fair
- Poor

50%

50%
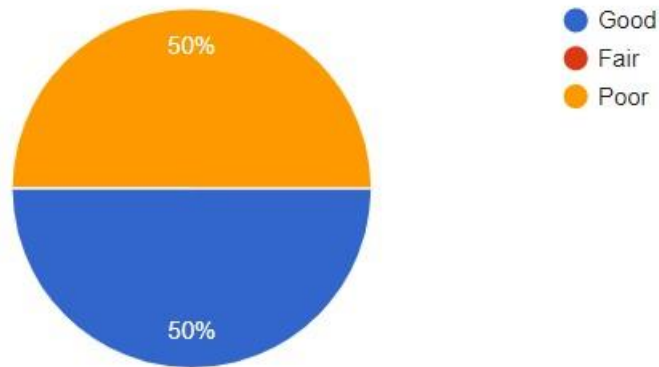
How was your experience at the home page and then navigate to other sections from the home menu?

2 responses

- Good
- Fair
- Poor

100%
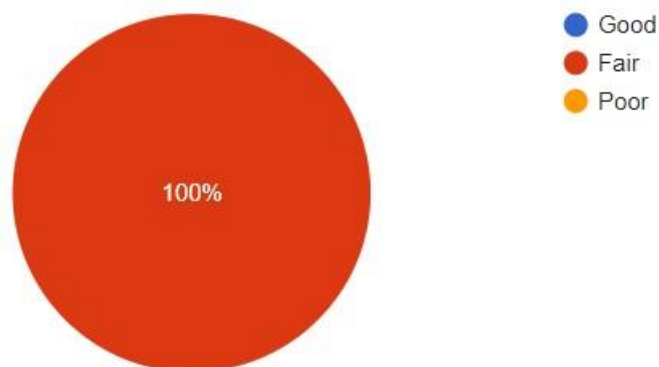
Reason for above answer

2 responses

When initially navigating to the app doctor channelling page is displaying. It is bit confusing. I think it will be better if you can make a home page with creative interface with tabs to navigate different functions without mainly displaying channelling a doctor.

Channelling interface is good. But when I need to check the running number I have to search it every where in the app. Please make it visible clearly in the home page.

On a scale of 1 to 5, rate your experience using the home menu and design in the application?
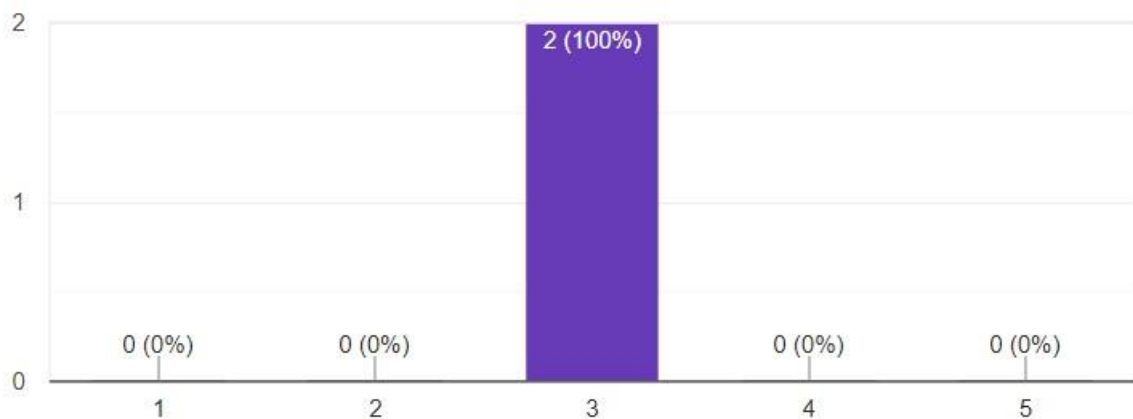
2 responses

What do you think about the section that you can get the membership for the registration?

2 responses

- Good
- Fair
- Poor

100%
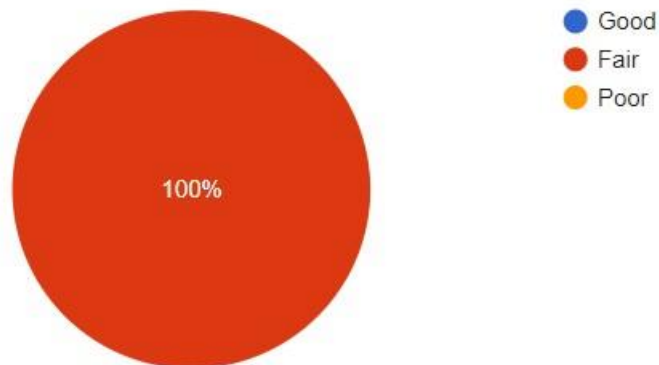
Reason for above answer

2 responses

I got lifetime membership after paying a fee. But I think it is not worthing to the cost that I paid with comparing the entire user friendliness of the app.

I am not sure about the security of the payment.

Which type of membership did you take?

2 responses

- Lifetime membership
- Periodical membership
- Free membership

50%
50%
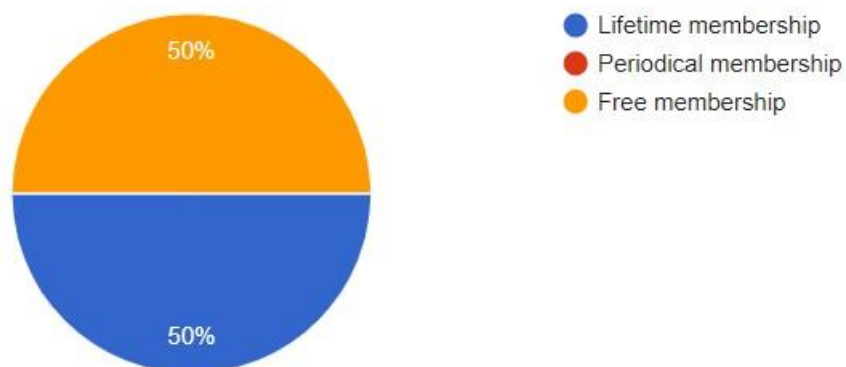
Did you get a feedback for your lab test results or your prescription?

2 responses

- Yes
- No

100%
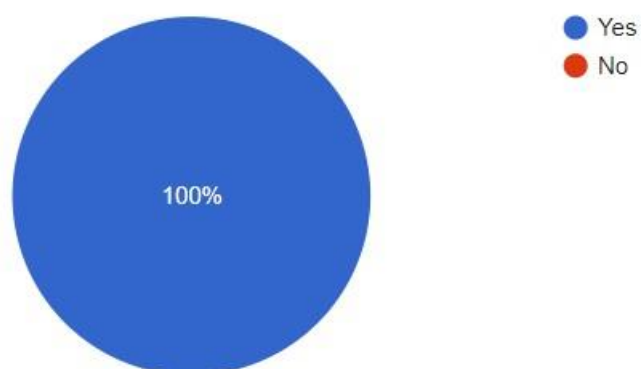
What kind of experience did you take when you uploading and filling the forms?

2 responses

I had to upload many times because photos are not clear.

Uploading can be done easily. But sometimes feedbacks were lately received.

Did you contact the e-channeling app's administrative office?

2 responses

- Yes
- No

100%

What do you think about the experience you get when connecting with the administrative office?

2 responses

I contacted administrative office because my medicine that I ordered through the app was delayed. They told me to wait medicine were on the way. But still I am waiting for my medicine since five days.

Their answers for my issues are not clear. Sometimes it was difficult to contact them immediately.

What do you think about the chatting system in the app?

2 responses

- Good
- Fair
- Poor

100%
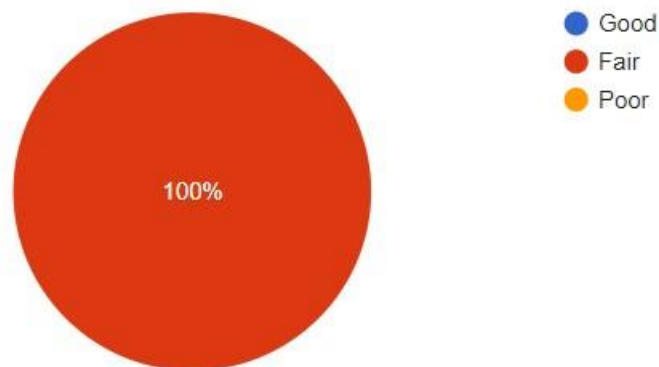
Reason for above answer

2 responses

Sometimes I have to wait a long time to get a response from a doctor.

Doctors reply lately and font size is too small.

On a scale of 1 to 5, rate your experience using the chat system in the application?
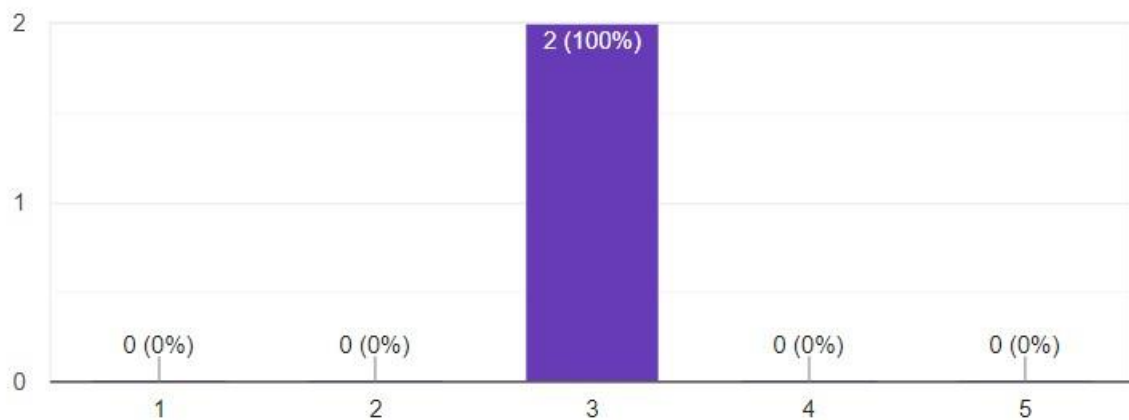
2 responses

Did you make any appointments through this app?

2 responses

- 🔵 Yes
- 🔴 No

100%
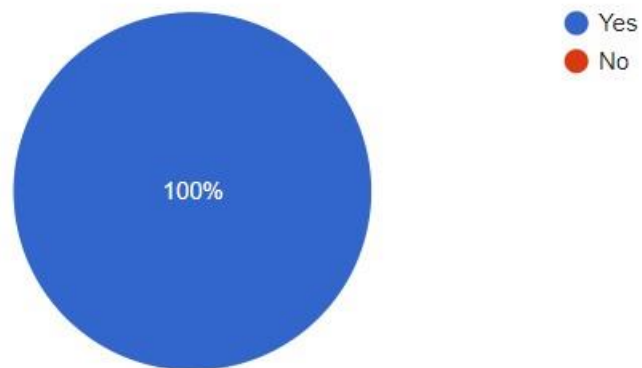
If answer for the above question is yes, How was the experience of using the app to complete that task?
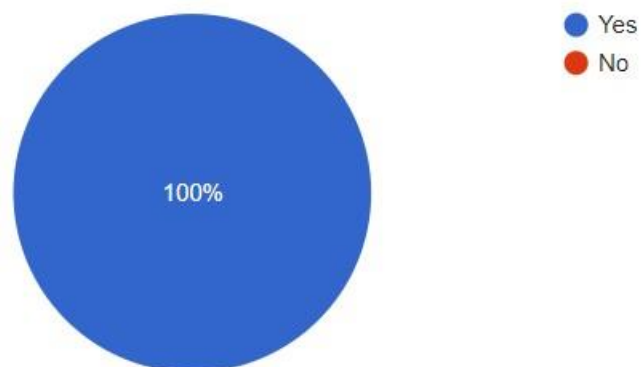
2 responses

I took an appoinment through the app in hemas hospital wattala. It was successful and I am satisfying with that facility.

It was the only function which was easily to handle for me.

Did you book time and a venue to take your Covid- 19 vaccine through our app?

2 responses

- Yes
- No

100%

If answer for the above question is yes, explain your experience.

2 responses

I pressed many times the vaccination tab because I did not get an understanding of the status of tab whether it was selected or not. I think color combination of the tabs are quite messy.

I always took the support from my grand children to handle the app. Because I could not see the wordings clearly because they are small. It is complex to use.

Did you book a time and a venue to perform PCR tests?

2 responses

- Yes
- No

100%
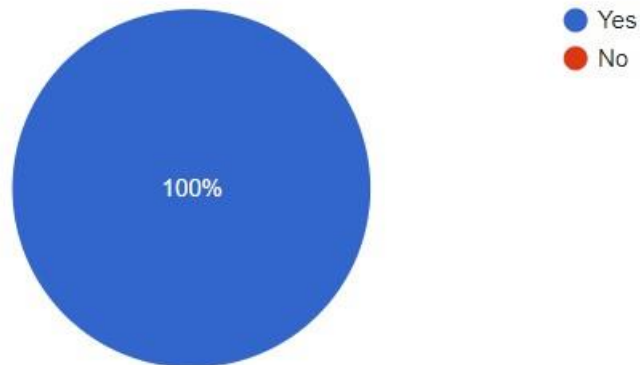
If answer for the above question is yes, explain your experience.

2 responses

I booked a time and a venue to perform my pcr tests. It was going well. But the same issue in tab selection was happened in there like same as in the covid vaccination booking process.

Too much icons. Therefore cannot find the relavant button even scrolling up and down for many times.
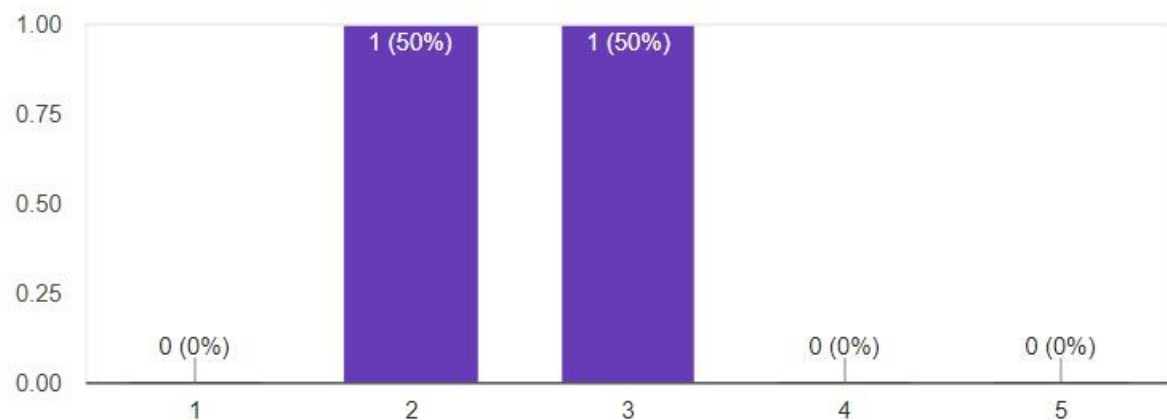
Have you ever placed an appointment to get your driving license medical by using this application?

2 responses

- Yes
- No

100%
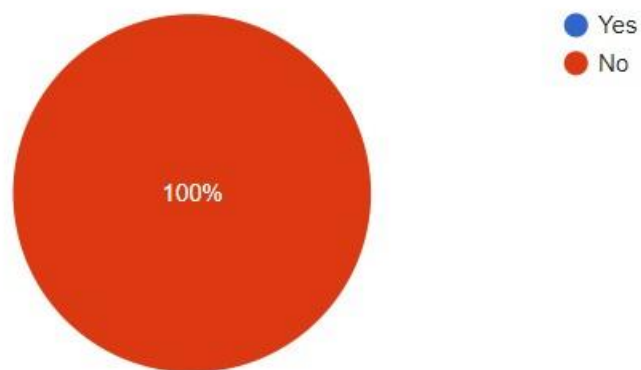
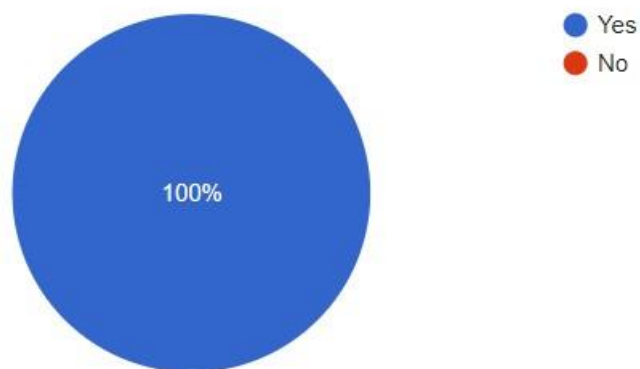On a scale of 1 to 5, rate your experience when using the user interfaces to place the appointment?

2 responses

	1	2	3	4	5
	0 (0%)	1 (50%)	1 (50%)	0 (0%)	0 (0%)

Have you used the option, running number with respect to your appointment?

2 responses

Legend:
- Yes
- No

100%

On a scale of 1 to 5, rate your experience on running number user interface?

2 responses

Rating	Count
1	1 (50%)
2	0 (0%)
3	1 (50%)
4	0 (0%)
5	0 (0%)
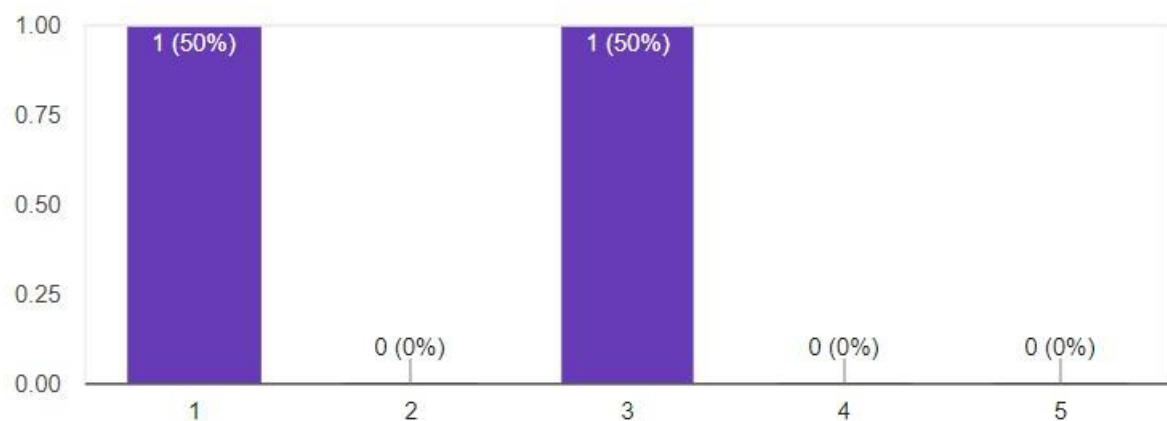
On a scale from 1 to 5, how likely are you to recommend this app to a friend?

2 responses