

## **Carnegie Mellon University Africa**

### **Android Mobile App Development**

#### **Iteration 2 - Adapt Phase Project**

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##### **Project : Hairdressing Salon booking appointment (SukaFasta)**

### **ADAPT PHASE**

#### **1. Document the feedback approach and methods used with each type of stakeholder**

Same as we did for iteration 1, we created two google forms to collect feedback from our stakeholders. One for the [user](#), and one for the [hairdresser](#). Users were mostly Carnegie Mellon University Africa students. We got one hairdresser to fill the feedback form.

The hairdressers' feedback form includes questions that help us understand the improvement they would like to see, features they think are unnecessary, how easy it is for them to use our app, and their willingness to recommend our app to others.

Similarly, the questions for the users were structured in a way that would allow us gauge and understand how satisfied they are with our current features, know the features they would like to see in our app, know how easy it is for them to use some of the components we included in the bookings screen and know how useful they think our app could be to them, their friends and their hairdressers.

Some of the questions were open ended, for example "What features would you like us to remove?". This question type was used to allow them express themselves without restriction. Other questions like "How easy was it to book an appointment?" were multiple choice questions with a scale of answers (Very difficult, Difficult, Neutral, Easy, Very easy). This question type would help us judge their answers based on the scale we provided. These types of questions were used for both stakeholders. Lastly, a field for additional comments was added to allow them to mention other things they couldn't mention under the questions we provided.

For testing the app, we allowed both stakeholders to test the app on our android phone, which has SukaFasta installed on it. This is because not all users have android phones. After testing the app, we allowed them to fill the feedback form.

## Questions

Most of the questions we asked in this phase are the same as the questions we asked in the first phase. We added questions about the new features we implemented in phase 2. Users had to answer 6 main questions:

1. What did you struggle with on the app?
2. What features would you like us to remove?
3. What features would you like to see but are missing in SukaFasta
4. Ease of usage subquestions: (options: very difficult, difficult, neutral, easy, very easy)
  - a. How easy is it to select time?
  - b. How easy is it to select date?
  - c. How easy is it to register?
  - d. How easy is it to login?
  - e. How easy is it to understand how to use the app?
  - f. How easy is it to book an appointment?
  - g. How easy is it to view all your appointments?
  - h. How easy is it to view all services?
  - i. How easy is it to view products?
5. Recommending SukaFasta to friends sub-questions (options: very likely, likely, neutral, unlikely, strongly unlikely)
  - a. How likely are you to recommend SukaFasta app to a friend?
  - b. How likely are you to recommend SukaFasta to your hairdresser?
6. Additional comments

Hairdressers had to answer 5 questions:

1. Ease of usage subquestions (options: very difficult, difficult, neutral, easy, very easy):
  - a. How easy is it to use/understand the app?
  - b. How easy is it to add service?
  - c. How easy is it to add product?
  - d. How easy is it to block time?
  - e. How easy is it to view all appointments?
  - f. How easy is it to delete an appointment?
  - g. How easy is it to book an appointment?
  - h. How easy is it to register?
  - i. How easy is it to login?

2. Recommending SukaFasta to friends sub-questions (options: very likely, likely, neutral, unlikely, strongly unlikely)
  - a. How likely are you to recommend SukaFasta app to your client?
  - b. How likely are you to recommend SukaFasta to other hairdressers?
3. What would you like us to add to the app?
4. What would you like us to remove from the app?
5. Additional comments

**2. Document the resulting feedback in detail. Include (or link to) the complete set of feedback data**

We had a total of 8 responses from users and 1 response from a hairdresser.

**User**

**+ Final SukaFasta User Feedback Form (Responses)**

For the registration page, some users thought it was unnecessary to have some fields in the form, e.g email address. Others would have preferred that they landed on the home page before they were asked to login or register. Another suggestion was that we make the registration form fields change after a user has selected their role. So instead of all users seeing “Salon Name” field, only the user that has selected the “Hairdresser” role should see it. Overall, more than 50% of our users found it easy to register and 22% found it difficult to register. For the login page, most users (8 out of 9) found it easy to use. The other user was neutral about the ease of usage of the login page. Most of the issues users complained about in the first iteration were no longer issues in the second iteration. Some of the issues that were in the first iteration that didn’t occur in the second iteration include: the misplacement of the dropdown for selecting “Hairdresser or Client” in the registration page, vague toast message on the registration page (e.g. “Registration failed”), the bug that was encountered when a user tried to submit without filling all fields in the registration form.

In the view appointments screen, some users found the long-click delete functionality to be a little hard, as our app did not give clear instructions on how to delete an appointment.

For the services and products screen, some users would prefer that they view services and products all on the same page. Currently our app requires that the user clicks on a service card to see all the products for that service in a different screen.

To reiterate, some features the users would like us to remove or improve upon include things like being directed to the login page before seeing the home screen page, having fields like email address on the registration page, sending the user to a different screen to view the products for a

particular service and making the “Salon Name” visible to the user even after they selected “Client” from the “Hairdresser or Client” dropdown.

Some of the features users would love to see that are not currently available are include:

- Selecting from a list of hairdressers (multiple hairdressers) and their available slots
- Being able to choose a service and see multiple hairdressers who offer that service
- Getting started tips when the users installs our app
- Knowing the exact location of hairdressers
- Knowing the exact status of your appointment, whether approved or pending
- Back/Return buttons on the screens
- Images to cards - service cards, product card, etc.

Ease of Usage: Most people found it easy to select time and date. About 88% of our users found it easy to select time and date. The remaining user neither found it easy nor hard. Everyone, except one neutral responder, found login to be easy. Hence, there’s not so much to change in login.. About half of the responders said it’s easy to register. Only 2 users (22%) found registration to be difficult. This means that some work can still be done to improve on the registration. Our app seems to be hard to understand, as only 33% responders found it easy to understand. Two responder found it difficult to understand. 77% of user found it easy to book appointments and one user found it difficult to book an appointment. Similar results were obtained for the view all appointments, with the exception that no user found it hard to view all appointments. Although no user found it hard to view all services, only about 55% of users found it easy to view all services available. People found view products associated with each service to be relatively easy, as we had about 66% users say it was easy to view products.

In terms of recommendation, seems some responders found our app to be useful to them, as over 66% of responders said they are likely to recommend our app to their friends. About 77% of responders are likely to recommend SukaFasta to their hairdressers. No user is unlikely to recommend our app to their friends or hairdressers.

Some users pointed out that it’s possible they still have to wait at the salon. For instance, if more than one user selects the same time slot. This is why some users have requested that we add a feature that lets them know the status of their appointment, whether it is pending or it has been approved.

## **Hairdresser**

### **+ Final SukaFasta Hairdressers Feedback Form (Responses)**

In general the hairdresser found SukaFasta to be very easy to use and understand. He did not have any issues with the login and registration. He thinks those are very easy to use. Same with

the features associated with appointment, e.g. viewing all appointments, deleting an appointment and booking an appointment. He finds all of these features very easy to use. Even though he thinks that adding products and adding service are both easy to use, he feels that the “Add service” feature is easier to use than the “Add Product” feature. Lastly, he also thinks it is easy to “Block Time”.

He thinks that the price field is unnecessary in the “Add Product” dialog box, so he suggested that we consider removing that from the app.

In terms of how useful the app is, the hairdresser seems to find it to be useful, as he said he is very likely to recommend SukaFasta to both his clients and fellow hairstylists.

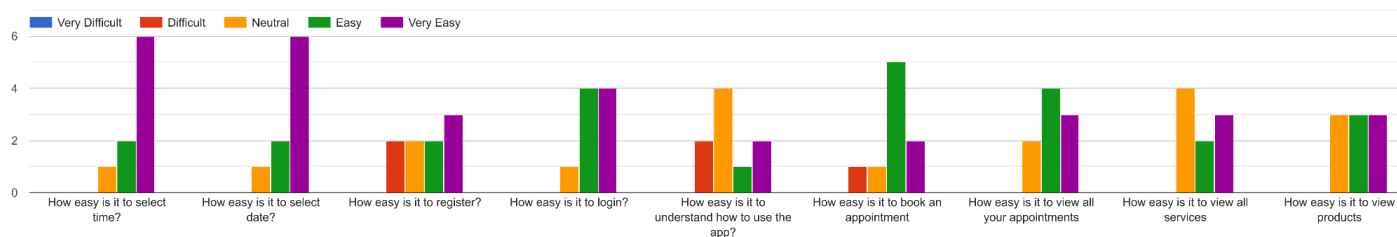
On the improvements to be made, he suggested that we add support for the local languages in Rwanda - Kinyarwanda, as well as French.

In conclusion, the hairdresser liked our app.

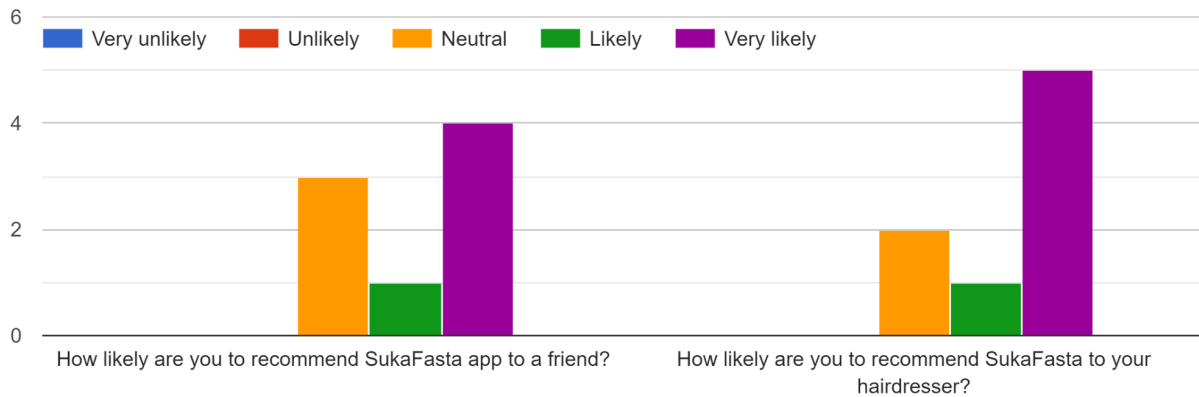
### **3. Document the feedback in whatever way you feel is most appropriate. Photos, sketches, renderings, screenshots, videos, text, etc.**

From the feedback the users and hairdresser shows that they were satisfied with the ease of usage of the app and would like to recommend the app to other people. With certain feature implemented, new and returning users were able to identify the ease of using the app and no user gave a negative feedback, compared to the last iteration. The recommendations to other users or hairdressers might be as a result of improved features that got a more satisfactory outcome.

Ease of Usage



## Recommending SukaFasta to Friends



### 4. Summary of feedback. Summarize the findings from your feedback.

- 20% (2/9) of our respondents struggled with booking appointments and deleting an appointment
- On ease of using the application, over 60% (6/9) of respondents indicated that it is very easy so pick date and time while booking an appointment, over 30% (3/9) indicated it's very easy to register, while the remaining indicated difficulty (2/9), neutral (2/9) and easy process while registering
- More than 70% (7/9) of our respondents are likely to recommend the app to their hairdresser, and over 60% (6/9) are likely to recommend the application to their friends
- Respondents suggested we remove the following functionalities:
  - Email field in registration
  - Registration before home page
  - Check box on service since it doesn't lead to any action once checked
- Respondents suggested we add the following functionalities:
  - Add back button
  - Hairdresser to approve an appointment and color differentiation between pending and approved appointments
  - A feedback form to report issues such as app crashing
  - Map pin to locate the salon
  - Tips on how to navigate the app for first time users
  - Numerous services providers to choose from
  - Searching for a specific vendor

### 5. Based on the feedback, what did you learn?

- Users want every functionality on the app to make sense to them such as a checkbox should lead to an action once checked
- Users would like to see more options of beauty salons and hairdressers to choose from
- People are more likely to use and recommend our app if deployed

#### 6. What was unexpected / what lessons did you learn?

- As we tested in the first phase, we used CMU students that gave us their honest review and intuition of the certain features that we could optimize like, changing screen rotation which destroyed every activity and when neither client or user were selected the default landing page was the hairdresser page.
- The list view of services to include the pictures loading from the phone was still having issues after selecting the image and not displaying them
- Certain operations were not obvious to user such as deleting their appointment, certain prompt would have aided in such interaction
- All users expected an SMS notification when their appointment was confirmed

#### 7. What worked, what didn't work?

Features	Worked	Didn't Work
Login	Input of phone number and password; If either fields are left empty, a toast will call for the user to fill email and password Hiding password	Keyboard appears even when click outside on the input field
Create Account	Signup fields allow use to type and the keyboard format appears based on input; for phone number only numbers appear. The dropdown to select the client and hairdresser. Using the registered phone to login.	The salon name should only appear if the user chooses Hairdress not the clients
Navigation top bar	Shows the app title	N/A
Navigation menu bar (bottom)	Could easily switch between menu bar items and items displayed on the bottom nav bar was based on the role (Hairdresser or client)	N/A

Upload image	Was able to access photo library and select image	Image selected was not uploaded into the card view.
Date selection	User can't access the previous date for the future booking	N/A
Adding and viewing the service and product list from both hairdresser and client pages	The service details were successfully added and each product for service updated. This services appears on the booking page	Images associated with service details did not show on the list.
Time Blocking for the hairdresser	The hairdresser was able to interact with the UI for blocking time	The user could still select the time the hairdresser has blocked
Confirmation Buttons (Add new Service/ confirm appointment)	All the buttons display a toast message showing event action that occurred.	N/A

## 8. What did you accomplish? Reflect on your time management.

We were able to accomplish the user testing of the App using physical android phone and recording their feedbacks. We completed all the tasks mentioned in our Minimal Viable Product (MVP) and we were able to fix the things that did not work in iteration 1. Those issues included:

- App crashing when user tries to sign up
- The dropdown selection of hairdresser or client appearing on top of screen.
- Returning the new user to login page after signing up when none of the fields in registration page is filled
- Buttons not show confirmation about task completed
- Click event not responsive

Concerning the time allocated for the features development we managed it effectively for most features, however developing certain components for example upload picture, took longer than expected. Managing team time for meeting and debugging was optimal.

## 9. Any changes to be made?

- No changes will be made at this point. Most of the improvements that can be made have been added under future work.

## 10. Did you meet your success criteria from your project charter in the Envision phase?

### Success criteria for meeting your vision

- The hairdresser can setup his/her services on the application



- A user can select a service and book an appointment
- The hairdresser can view booked appointments

Metrics that were defined in the envision phase for measuring our success include:

- At least one hair salon in Kigali subscribes to our mobile application
- Rating of 4.2 stars on playstore from our app users
- The users can find hairdressing salons, select services from one and book an appointment

Upon receiving feedback from our instructor, we redefined and used the following metrics:

- At least one hair salon and 5 users in Kigali subscribes to our mobile application
- Users should be able to select services from one hairdressing salon and book an appointment

From the above criteria from the envision phase we met our success criteria for the application. Both the hairdresser and user can access and perform these actions above from the app. We were able to get more than 5 users and a hairdresser to test the application. However, we did not upload the app to Google Play Store, since further work could be done on the application.

## **11. Lessons learned**

Throughout this project we learned different things related to time estimation, and user-centered approach in solving a problem. The following are the highlights of the lessons learned:

- Most times we used more time to develop features than what we estimated
- We learned to list each feature in our master list even those that we considered implicit at first such as data persistence
- Users have different perspectives of which features they need based on their roles, for example clients wanted to have price displayed while the hairdresser thought price shouldn't be displayed because multiple products could be used in a service and accounting for price can be very complex
- Getting feedback from the users allowed us to identify more useful features that we did not think of in the beginning, as well as remove some features that were not useful from the user perspective

## **12. Future plans**

- a) Add images to service and product cards
- b) Remove unnecessary fields from the registration form (such as email)
- c) Add a status field to the appointment cards, showing approved or pending
- d) Allow multiple hairdressers to register on the app
- e) Allow multiple salons to register on the app
- f) Add lateral - up navigation to the pages on our screen
- g) Add getting started tips to guide the user when they use the app for the first time