

Appendix 1

Preliminary Interview with Client

The “client” is the owner of a non-profit organization called “careshare” that donates essential goods to the needy. The following is a questionnaire that the client filled, defining the problems.

Q1: What is the role of your organisation?

Client: Our organisation ‘careshare’ is a non-profit organisation that donates to the needy. We rely on monetary donations from donors and third parties. They specify what kind of goods they want to donate and we tell them the funds required to get these goods. They pay us the amount we specify, which depends on the type of good and the quantity that they want to donate. We buy these at a wholesale price from a wholesaler which makes goods cheaper to get in larger quantities. Then, we make these available to the receivers at the physical distribution points. The receivers can come to the points and get these donations by filling in some “information forms” about themselves.

Q2: Can you briefly describe your problem?

Client: There are employees at each of our branches that record the inflow and outflow of the donations on paper-based logbooks and registers but this system is too unreliable. Many employees have to be hired to take care of the paper logbooks and registers. Currently, the monetary funding for our organization is quite low and therefore it is not feasible for us to pay hefty employee wages. Also, employees have complained that the records are almost always incomplete and not always updated to reflect incoming donations as a result of human error. Furthermore, we have not been getting many donations lately and this has caused a lack of funds and frustration in the people who depend on this organisation for essentials. Also, sometimes we have too many donations of one type of item and none of another. This is because we currently do not have any sort of system to identify what type of items are currently in stock or out of stock.

Q3: Can You roughly and briefly describe what sort of solution you want?

Client: I think most of our problems would be solved by moving to a paperless digital system as most of our problems' root cause is human error.

Q4: Moving on, could you elaborate exactly what kind of features you would want in the new system

Client: We could introduce a unified kiosk based digital solution/application for donors and receivers at the physical donation points that would keep track of the donations being made and the donations that are being taken. This would help us cut down the staff required at each distribution point and this would also decrease human error in record keeping and improve consistency of data. Donors would fill a short form for the type of food they are donating and the recipients could use the same interface to navigate to a menu where they can select what type of goods they want. We could also limit the number of items a receiver can take. Additionally, an account-based system linked to some sort of unique identification for every receiver would allow us to know what people are receiving. These are some of my suggestions. To solve the other problems, I suggest you get creative and let me know if you think of any other solutions.

Second Interaction.

The following interaction was held to agree on a success criteria. An interview with the client to ask some technical questions and agree on a success criteria.

M: Me

C: Client

M: Okay, so we established the problems affecting the organisation, in our last meeting. Looking at your responses, I came up with a few ideas about the solution and some technical questions. Do you want to go over them one by one let me know whether you agree with them?

C: Yes, please go ahead!

M: So, This application will be based on a kiosk which would be present at each of the physical donation points. Furthermore, the Application will need to have a simple and intuitive interface as many of the “receivers” using this application might not have any prior knowledge of using computers.

C: Okay that’s fine, I understand that the kiosk would help us cut down on staff as it would automate the process of donation logging? And yes, it does need to be user friendly and appealing so that the users can easily operate the application.

M: Yes, moving on, there will be a new accounts system for both donors and receivers. Both types of users will be able to sign into and create new accounts using the application. The donors won’t require unique identification but the receivers would be required to enter their CNIC* number to register an account.

C: Yes, that is also fine. We would also need to make sure that all the CNIC numbers are unique somehow.

M: Yes, there will be checks in place to ensure that the CNIC’s are unique.

M: To address the issue of inconsistency in the donations record. All of the donations that are made or taken will be logged in a database table. This way all donations will be logged accurately.

C: Yes, that seems good. That is our biggest concern right now so please take extra care to ensure that all donations are logged perfectly.

M:Next to solve the problem of item availability, there will be a way for the donors to know what items are unavailable(out of stock) and therefore advise them to donate these type of items instead of items that are in stock

C: Hmm. That is a good idea in theory. I will need to look at how it works first in practice and I'll give you my feedback then.

M: To promote donations I came up with a new idea. We can show the donors using the application the donor with the most donations. This would create some healthy competition and people might be motivated to donate more.

C: Yea that is a really good idea. You can do that. Will be looking forward to how it works in practice.

M: The receivers will be able to see what type of goods are in stock and consequently be able to add these donations to their cart. They can then confirm their donations and print a receipt of their donations. From there they can show the employee at the counter this receipt and get their donations.

C: Yes, that's fine too. There will still be one or two employees still at the physical donation points so that makes sense.

M: There are some smaller features that I have in mind that I will update you about once I have created a prototype application.

C: Perfect, will be looking forward to seeing this solution in action. By when will I be able to see a prototype

M: Hopefully by next June. Do you have any other questions

C: No, Not at this time. Thanks

**CNIC : Computerised National Identification Card (Unique identification card)*

Final interview.

This was the final interview conducted with the client to evaluate the working of the solution.

M: Now that you have used the program yourself can you confirm whether all of the success criteria were met

C: Yes, I think the application works really well for the most part. Should I go over what I liked and disliked? I'll also talk about the success criteria

M: yes, please go ahead!

C: Okay, Starting off with the design. I really liked the overall design and colour scheme used and the application was user friendly and easily usable. Many of our customer also found it simple to use. The validation checks in place all worked perfectly as well and we didn't have any complaints as of yet.

M: Moving on, can you talk to me about how you feel about the donor's side of the application.

C: Starting off I think the idea behind “top donors” is really nice. It was a really good way of increasing donations in our company and especially because you can see both the “top donor” and the number of donations they have made. I also liked how the idea of donation requests was implemented. The user could easily see what items were out of stock and this made it easier for the donors to decide what to donate as it guided them. Moreover, the donation requests function was almost always accurately informing the users about the types of goods in stock and those out of stock. This makes me confident that the donations are being logged accurately. Other than that, I didn't have any complaints or things to point out.

M: Good to hear, Can you also talk to me about how you found the receiver's side of the application.

C: Mostly really good, I think an improvement that could be made with the user friendliness, it was at times hard for the receivers to understand what was to be done to get a donation even with employee assistance. I think some sort of help menus could be added into the application. Other than that, I found that the donations were being logged correctly and I was especially impressed with how the table showed the item availability in real time. Good job with that. I was mostly satisfied with the rest of the functionality and the success criteria was met.

M: Finally, Any suggestions for future improvements

C: Yes I had a few, I just mentioned one about adding help menus. To transition to a fully automated setup, we could add an online payment system for the donors so that there is no manual cash exchange. This would allow us to make our physical donation points nearly unmanned and totally automated. Also, I was looking at the databases and saw that the passwords of the users were in plaintext. Maybe they could be encrypted and stored for more security and privacy. Also, as the prices of good seldom change maybe there could be settings added for administrators to change these prices that are currently fixed. I think that is all for now.

M: Thank you for your time!

C: No problem and thanks again!