

● Team Grimer (Applied 03)



Data Gathering & User Analysis

Planning for food donation guidance app

2024



User interface design and usability



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Introduction

In this project, our group will create a mobile application prototype to enhance food donation processes. With rising living costs increasing reliance on charities, it is crucial to simplify how people donate food. Our app will address common challenges by helping users locate donation sites, verify if their food is suitable, and stay updated on charity needs.

We will design the app through several stages, applying principles and theories to improve user experience. Initially, we will conduct surveys to gather user data, which will guide our design decisions and ensure the app meets real needs. This user-centred approach will inform our development of features such as finding nearby donation locations, assessing food suitability, and receiving updates from food banks.

Target audience

Our target population may constitute various communities and individuals seeking to play a role in alleviating the effects of the cost-of-living crisis. They may include higher education students who are eager to propel a significant change within their immediate community, Families with older children that have moved out of home, young families that aspire to reach out and foster community spirit, and elderly individuals that seek to establish a rewarding routine of getting involved in their local communities. Within these groups of individuals that form our target population, there may be those that utilise public transport as their main mode of transportation, and others who have greater access to personal vehicles. Users of this app may additionally range from individuals who live rurally, or regionally, to those that live in suburban or metro cities. Moreover, there may be a digital divide among the group, with the allocation of individuals that consider themselves technologically adept in contrast with those that are not.

Analysis report:

Brief description of analysis:

This survey comprised a total of 40 participants from varying age groups, occupations, and general demographics. We incorporated a series of fifteen multiple choice questions, with select questions permitting multiple answers, and often included an 'other' option where users were provided with the opportunity to specify their case. Our first five questions encompassed demographic-related queries, whereas the other ten related to the subject matter of user attitudes to food donations. The responses to our survey indicated various similar themes present throughout the sample group concerning issues such as finding areas where users may donate food, common challenges often encountered, underlying concerns, and attitudes to a mobile app that will deliver food bank supply updates. We identified our primary demographic to be suburban young adults and students, with a majority of participants utilising a personal vehicle as their primary mode of transportation. Most of our users professed to be technologically proficient and comfortable, with a majority of them gaining awareness and information regarding local food banks and charities through the use of social media.

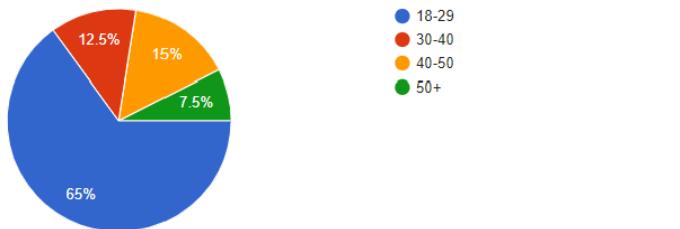
The most common challenge brought up by users seeking food donation hubs was that there was a lack of clarity on which food items are acceptable for donation. A key feature that was deemed the most likely to be helpful was the incorporation of a map that will provide users with a visual representation of their local charities that require and accept food donations. Additionally, a prominent concern voiced by a majority of the participants regarding the use of mobile apps for food donations was the idea of a lack in provided functionality, with an emphasis on the need for a clear and comprehensible interface. However, most participants indicated that they have not used mobile apps for charitable giving in the last 12 months, with a major portion of participants agreeing that they would prefer to create a personal profile within the app in order to receive personalised donation suggestions, and that the most important information required would be whether or not certain food items meet donation requirements.

Survey patterns:

- Pattern 1: One pattern that was clear from the results was that there are a lot of young people who want to donate food but are unable to do so as they have no proper guidance to do so.

What would your age group be?

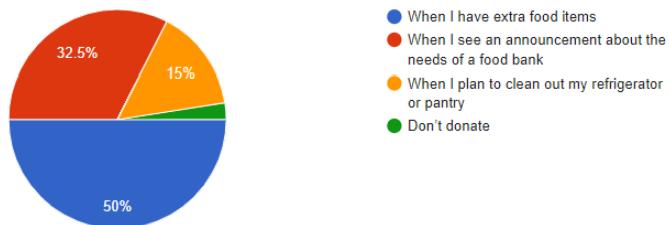
40 responses



Under what circumstances do you typically decide to donate food?

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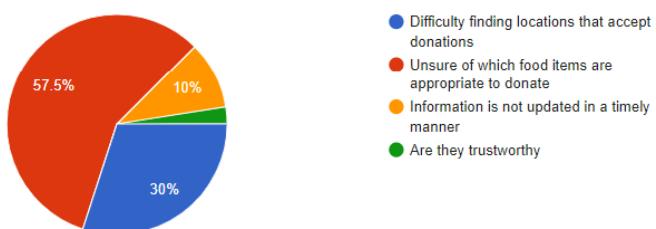
40 responses



What are the most common challenges you encounter when looking for places to donate?

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40 responses

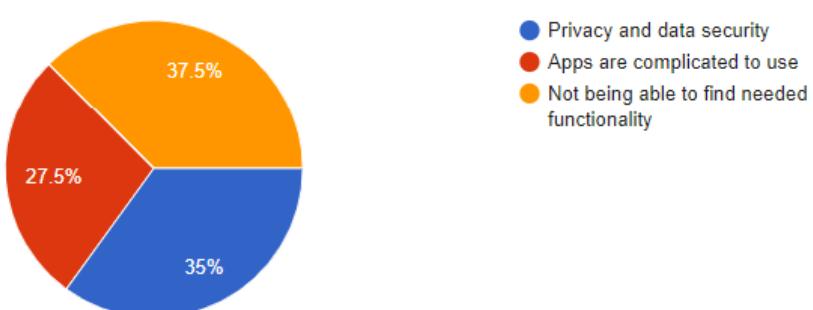


- Pattern 2 :Even Though many are not comfortable creating an account in a mobile app to donate food, they are happy to receive updates and get the needed information to be able to use it regularly.

What are your biggest concerns about using mobile apps for food donations?

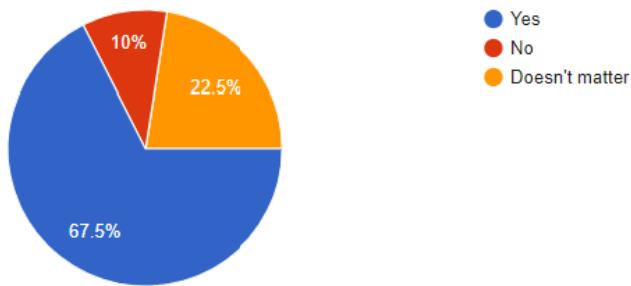
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40 responses



Would you prefer to receive food bank needs updates via a mobile app?

40 responses



About the users:

Analysing the results of the questionnaire, we learned that users are mainly concentrated in the younger age group of 18-29 years (65%), that this group is mostly students (45%) and that most of them live in urban areas (60%). They usually use public transport (57.5%) and feel very comfortable using mobile apps for daily tasks (60% said they are very comfortable). This indicates that the target user group is familiar with modern technology and is happy to adopt mobile apps to simplify daily operations.

When looking for places to donate, the biggest challenge users face is determining which food items are appropriate to donate (57.5%), followed by finding locations that accept donations (30%). Additionally, most users preferred social media for donation-related information (52.5%) and wanted apps to provide a map function to help locate donation locations (65%).

As for privacy and data security issues, the overall concern reflected by users was not high (37.5%), but they showed interest and demand for the application of mobile apps to achieve the process of effectively donating food, and in particular, many showed strong interest in the possibility of accepting food requests from charities through the mobile phone app (67.5%).

Challenges faced during the form distribution:

Challenge:1

Inaccurate Responses:

Most respondents might have been accurate with their responses, some users might have randomly chosen the answers that are given to finish it as soon as possible. This might cause variations and might lead to skewed data.

Challenge:2

Young people respond faster:

Though the survey was shared to a variety of people who included students, friends, and family members, the chances of getting responses were higher from younger adults mainly because they are more well versed with using their phones to fill up the forms. This might have caused the report to have more respondents that are younger.

Challenge:3

Lack of personal feedback:

The consideration was taken to have less questions which accept user input in the form of text as these questions, even though they give more information regarding what the respondent is feeling, might take more time to complete the form due to which respondents might skip certain questions or not complete the form altogether.

How will these patterns guide the design of our app?

Based on the patterns it can be seen that there is a need for people to get information regarding donating food and the most convenient way would be through using a mobile app. These users have a means to travel and are mainly based in the suburban area. Most users are comfortable using mobile apps for daily tasks but are not confident sharing their personal details so a simple app which shows location information can be the main design feature.

User Personas and Stories

Janice Jobin (32914318):

User 1: Alina Sanchez



Alina Sanchez (She/Her)

Age 21
Location Bundoora, VIC
Occupation University Student

"While we wait for life, life passes." Seneca

Bio

Alina is a third-year university student undertaking a Bachelor of Education (Primary). She is a very empathetic and socially aware individual that has a desire to get better acquainted with and involved within her local community. She lives with her family in a suburban area, utilising the bus as her primary mode of transportation locally. She considers herself quite technically-savvy and spends a considerable amount of time on social media and news apps, where she primarily receives her source of information from.

Goals

- To help out communities in need and make a difference, starting with her local community.
- To convince her family to get involved as well, and ensure they are updated with the latest information on the needs of the local community.

Wants and needs

- Wants to understand exactly what she could do to help out her local community—requires detailed instructions as she struggles with anxiety
- Appropriately timed updates on the current situation of local charities and food banks around her.

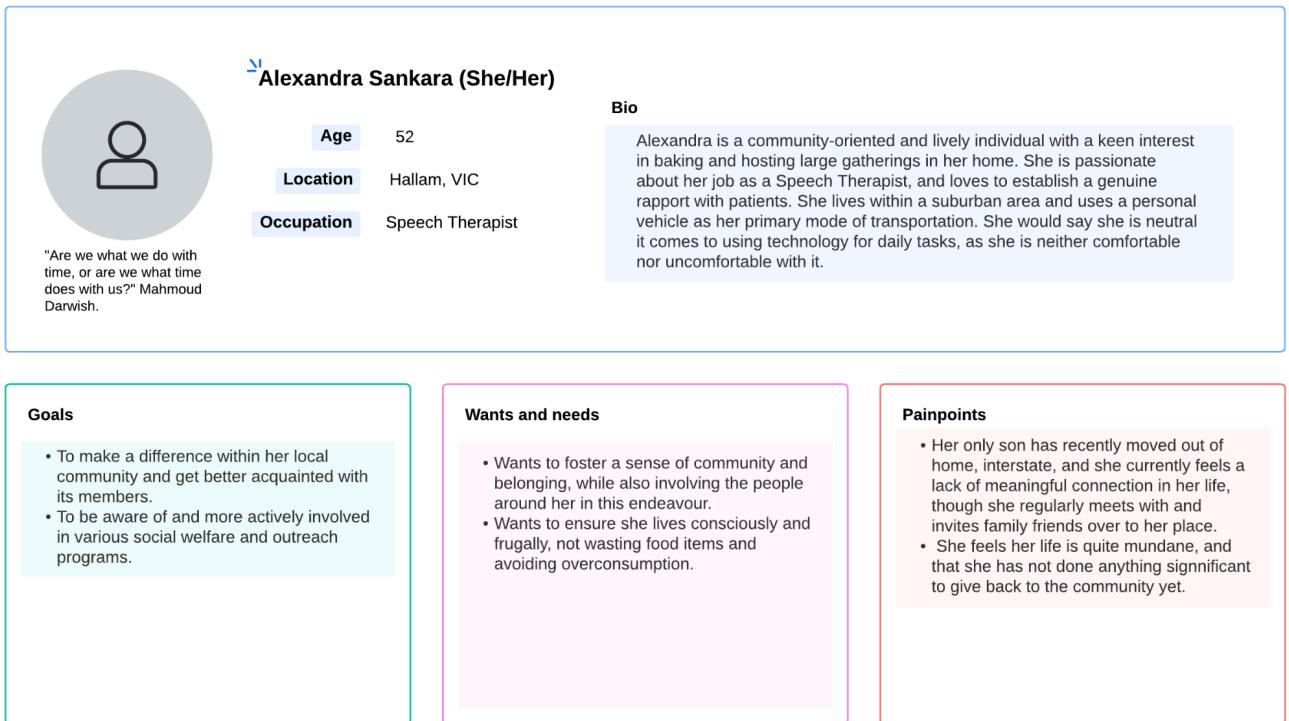
Painpoints

- Watching, primarily through social media, individuals who talk of their struggles in the present society, knowing she is from a pretty well off family and not knowing what to make of a lasting impact.
- Has been wanting to help out her local community for a long time, however, she struggles with anxiety and does not have a clear guide on the whole process.

User story:

As a university student currently living at home, Alina has various discussions with her family regarding the current cost of living crisis and would like to help out in any way that she can at the moment. Her family agrees and they would like to help out too, but Alina is unsure where to start. She wants to know where she could go to look for further information on what food supplies are needed by the community, where exactly she needs to drop it off, and whether these locations are accessible via public transportation. Her parents additionally have extra food items in their pantry that they would like to donate too, but Alina is unsure whether these will be appropriate for donation. Alina wants a way to check whether certain food items are acceptable to donate so that she can efficiently drop them off to the local food bank or charity. Due to her anxiety, she would also like clear instructions on the whole process so that her contribution is effective and impactful.

User 2: Alexandra Sankara



*User persona charts created using Lucidchart (<https://www.lucidchart.com/>).

User story:

Alexandra was looking through her pantry for ingredients she may use to cook dinner one night, when she realised that she had unconsciously over-stocked the shelves with too many food items that she won't be able to use herself now that her son had recently moved out of home. She considers donating them to the local food bank, however, she is unsure which food items are appropriate for donation. She wants to find a way to check the appropriateness of her food items so she knows they are being accepted and put to good use in helping the local community. She additionally believes she would be further motivated to donate on a regular basis based on various incentives and rewards programs.

Additional requirements:

Both Alina and Alexandra require a system that checks the suitability of various food items that are being considered for donation to local food banks. Two additional requirements that could be incorporated into the project plan could include:

- Testimonials and success stories:** Users may read stories and view videos on how their donations have made an impact on their local community, and future project plans to help build the community up.
- An online community forum:** Users may interact with one another, ask relevant questions, and connect through this forum.

Analysis/Reflection:

The user personas described in this section represent two various facets of personality and perspectives found within the data collected. The first user persona, Alina, is a younger adult university student living with her parents while the second persona, Alexandra, represents a

52 year old working woman that is currently living alone. Both users have varying goals and requirements, according to their current circumstances and context.

Alina is a student living in the suburbs who primarily uses public transportation to commute around her local area, and she is very comfortable using technology. She often finds her sources of information through social media and highly empathises with the struggle faced by many others during the current cost of living crisis. She is eager to contribute and make an impact on her local community, however, she feels stuck as she is not too sure about the various processes and etiquette behind donating to food charities. She is unsure of which food items are appropriate for her to donate, and requires a map that will show her a visual of all the local food banks and charities she may donate to, as she relies heavily on public transportation and would have to plan her travels accordingly. She would love to stay informed and regularly receive timely food bank updates through a mobile app, especially if it sends out personalised donation suggestions. She has not donated in the past 12 months, however, she has been wanting to for a while. She believes detailed giving instructions will greatly benefit her.

Alexandra on the other hand drives a personal vehicle and therefore has easier access to various locations across her suburb. She currently works as a Speech Therapist and is neutral on the use of technology. She usually receives information and updates on her local food banks and charities through her friends or family and donates when she has extra food items in her pantry. Her son recently moved out of home, and realises that she often over-purchases food items out of habit, forgetting that she will only be purchasing the items for her own use now. However, she is unsure which foods in her pantry are appropriate for donation, and she often finds that mobile apps don't have clear and easy to use interfaces or the functionality she requires.

MoSCoW prioritisation:

Must:

- ❖ **Alina:** Personalised and detailed information about the donation processes of her local charities.
- ❖ **Alexandra:** Food barcode scanner or information database that will provide her with advice on whether the food is appropriate for donation.

Should:

- ❖ **Alina:** Included map that shows all nearby charity locations accessible by public transport.
- ❖ **Alexandra:** clear and easy to use interface.

Could:

- ❖ **Alina:** a forum where she may connect with other individuals in the community.
- ❖ **Alexandra:** a map within the app that will direct her to various local charities.

Won't:

- ❖ **Alina:** instant notifications on the needs of the food bank
- ❖ **Alexandra:** an online incentives or rewards system

Abbishek Kamak 33526559:

Persona 1:

Isabel Mercado



Get to know Julia

Julia is a kind and generous person and wants to contribute more to help people in need. After work she spends her time going on walks with her dog or reading. She is socially conscious and interested in contributing to her community as much as she can.

Comfort with tech

	Mobile apps	Internet	Social Network
Comfort level	5 filled circles	4 filled circles, 1 empty circle	5 filled circles

"DEDICATED TO MAKING A POSITIVE IMPACT IN MY COMMUNITY."

ENGINEERING STUDENT

About

- 25 years old
- Melbourne University
- Female, Unmarried, Single
- Part time worker at Coles

Goals

- wants to help local communities
- would like more people to donate

Wants to donate food to help people who need it as she feels that she always has left over food.
She also wants to get more people involved to donate as well so help as many people as possible

Challenges

- Lack of knowledge to donate
- Values online privacy
- Afraid of meeting strangers

Even though she wants to donate food, she is unable to do so as she is not able to find reliable sources or information on how to do so.
She has seen many apps which ask for her profile details to sign up but is hesitant as she prefers not to have her personal information shared.
Though she wants to do the best for the community she fears meeting strangers directly and as she lives in the city, she would prefer to not travel too far off.

Persona 2:

Yoonchae Shin



Get to know Yoonchae

Yoonchae is a lively and active woman who stays at home with her 2 dogs and her family of 4. (Husband and 2 kids. She loves to cook and tries out new recipes for her family to try. She spends time watching TV or playing games on her phone and visits the local community centre to help out during the week

Comfort with tech

	Mobile apps	Internet	Social Network
Mobile apps	● ● ○ ○ ○		
Internet	● ● ○ ○ ○		
Social Network	○ ○ ○ ○ ○		

"PASSIONATE ABOUT GIVING BACK, I'M DEDICATED TO HELPING OTHERS BY DONATING FOOD."

HOMEMAKER

About

- 42 years old
- Lives at a suburban area
- Female, Married, 2 Kids
- Helps at community centre

Goals

- Does not want to waste food
Yoonchae makes large portion meals for her family but at days there is a lot of food wasted which she would rather donate.
- Wants to do more for the community
Working at the community centre, she can see that there are lots of people in need and wants to do the best that she can.

Challenges

- Not competent with mobile apps
She uses her mobile to make calls and play games like Call of Duty but finds it hard to use very complex apps.
- Colour blindness
Yoonchae has been diagnosed with colour blindness making it hard to user some apps or websites.
- Does not drive
She does not drive and prefers to find locations to donate close to home so that she can either take a public vehicle or just walk.

2.1. User Story:

- **Yoonchae Shin:** "As Yoonchae Shin, I want to find safe, city-based waste drop-off points without sharing my personal information so that I can contribute to the community without compromising my privacy."

MoSCoW Prioritization:

→ **Must Have:**

- ◆ **Yoonchae Shin:** Ability to find safe, city-based waste drop-off points without requiring personal information.

→ **Should Have:**

- ◆ **Yoonchae Shin:** A feature that highlights locations with higher safety ratings based on user feedback.

→ **Could Have:**

- ◆ **Yoonchae Shin:** An option to receive updates on waste drop-off locations without sharing personal details.

→ **Won't Have:**

- ◆ **Yoonchae Shin:** Integration with social media or any feature that requires sharing personal information.

Justification:

This user story aligns with Yoonchae Shin's preferences for privacy and safety, focusing on city-based waste management without requiring personal data sharing.

2.2. User Story:

- **Yoonchae Shin:** "As Yoonchae Shin, I want an easy-to-use mobile app which will help me with solutions to manage my leftover waste so that I can contribute to the community."

MoSCoW Prioritization:

→ **Must Have:**

- ◆ User-friendly interface for waste management.

→ **Should Have:**

- Guidance to know which food can be donated

→ **Could Have:**

- ◆ Notifications about community waste management events.
- ◆

→ **Won't Have:**

- ◆ Integration with social media to share waste management activities.

Justification:

A user-friendly interface is crucial for ease of use. Helping guide which items can be donated can add value to Yoonchae, while progress graphs are a nice-to-have. Social media integration is excluded to maintain privacy.

3. Additional Requirements:

- 1) Integrate a FAQ or help section with common questions and best practices for food donation and waste management. This feature helps users like Yoonchae Shin and Isabel easily find answers to their questions and better understand how to use the app effectively.
- 2) Offer a feature for users to connect with local food banks or charities directly through the app for more personalised support. Direct communication with organizations can help users like Isabel coordinate more effectively and get specific guidance.

4. Reflection:

In developing features for an app designed to facilitate food donations and waste management, it is crucial to align the requirements with the specific needs and preferences of the target personas, Yoonchae Shin and Isabel. These personas provide insights into the varying challenges and preferences that the app must address.

Yoonchae Shin is a 42-year-old woman living in the suburbs with her family. She loves to cook but wants to manage food waste by donating leftovers. Despite her enthusiasm, Yoonchae faces significant barriers: she has color blindness, limited mobile app competency, and does not drive. These factors influence her interaction with the app. For her, simplicity and accessibility are paramount. She needs an app that is easy to navigate and provides clear, straightforward information about local donation options. Given her inability to drive, it is crucial that the app helps her find nearby donation locations within her reach.

Isabel, on the other hand, is a 25-year-old student who is eager to donate leftovers but is generally apprehensive about meeting strangers. Her willingness to drive across the city indicates a preference for flexibility and convenience. Isabel needs features that allow her to efficiently locate donation sites and schedule her donations without feeling overwhelmed. The app should offer clear information about donation locations and possibly integrate with her calendar to set reminders. Given her fear of encountering strangers, ensuring that the

app maintains her privacy and provides secure, easy-to-use interfaces is crucial. Isabel's needs emphasise the importance of a user-friendly design that minimises anxiety and maximises convenience while maintaining user privacy.

In summary, the requirements are designed to cater to the distinct needs of the personas. For Yoonchae, the emphasis is on simplicity, local accessibility, and privacy. For Isabel, the focus is on convenience, scheduling, and privacy. By aligning the app's features with these needs, the development process ensures that the final product will be effective and user-friendly, addressing the core concerns of both personas and facilitating successful food donation and waste management.

Huiying Wang(34177965)

1. User persona:

USERS

PROFILE



Profile

Name:

Dihoon

Date of birth:

30/1/2005

Occupation:

student

Major:

music

Expertise

- **Music Composition**
- **Instrumental Performance**
(Piano, Guitar)
- **Community Volunteer Work**
- **Basic Technical Skills** (e.g. using music production software)

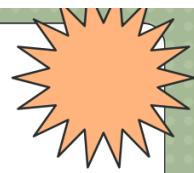
Goals

- **Effectively Help the Community:** Dihoon wants to contribute to society by donating food to those in need, even amidst his busy academic life.
- **Quickly Complete Donations:** Given his demanding study schedule, Dihoon seeks an app that allows him to quickly complete donations without taking up much of his time.
- **Receive Timely Information:** Dihoon wants to stay updated on the latest needs of food banks, making his contributions effective and targeted.

Challenge

- **Time Constraints:** As a university student, Dihoon has a very busy daily routine, leaving little time for handling complex processes or learning new technologies.
- **Expectation for Efficiency and Practicality:** Dihoon values efficiency and practicality, expecting the app to respond quickly and meet his needs.
- **Risk of Information Overload:** While Dihoon wants timely donation information, he also faces the challenge of information overload.

USERS



PROFILE



Profile

Name:
Grace

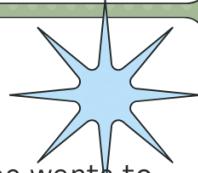
Date of birth:
22/8/1953

Occupation:
retired

Expertise

Gardening:
Expert in horticulture, with decades of experience in gardening and landscaping.
Community Engagement:
Actively involved in local community events and charity work, especially those related to food security.
Technology Use:
Basic knowledge of using mobile apps, with a preference for simple and accessible interfaces.

Goals



- **Contribute to the Community:** Grace wants to stay active and involved in her local community by donating food to those in need.
- **Maintain Simplicity in Technology:** Grace's goal is to use an app that doesn't require much technical know-how and fits seamlessly into her daily routine.

challenges

- A stylized orange starburst or sunburst icon with many points, located next to the challenges section.
- **Limited Tech Savviness:** Grace struggles with complex technology, especially mobile apps that require multiple steps or advanced settings.
 - **Poor Eyesight:** Grace's eyesight isn't what it used to be, making it difficult for her to read small text or navigate apps without large fonts or voice assistance.
 - **Finding Reliable Information:** Grace relies heavily on clear, easily accessible information to know what and where to donate.

2. User story:

A.As Dihoon, I want the app to allow me to donate food quickly through simple steps, so that I can help the community more effectively without being burdened by complex processes amidst my busy study schedule.

MoSCoW Prioritization:

Must have:*Simple donation process.*The app must allow Dihoon to quickly donate food through a straightforward process, ensuring he is not burdened by complex steps in his busy study schedule.

Should have:*Personalized recommendations.* The app should recommend suitable items or organizations for Dihoon to donate based on his donation history or preferences, making his donations more efficient.

Could have:*Social media integration.* The app could allow Dihoon to share his donation activities on social media, encouraging others to participate as well.

Won't have this time:*Complex analytics.* Advanced donation data analysis or trend reports are not a priority for Dihoon and can be excluded from the current version.

B.As Grace, I want the app to have large, easy-to-read text and voice guidance, so that I can easily navigate through the donation process despite my poor eyesight.

MoSCoW Prioritization:

Must have:*Large fonts and voice guidance.*The app must include large fonts and voice guidance to ensure Grace can easily navigate the donation process despite her poor eyesight.

Should have:*Simple navigation.* The app should provide clear and straightforward navigation to help Grace, who is not very tech-savvy, use the app effectively.

Could have:*Community announcements and map.* The app could include local community announcements and a simple map feature to help Grace find nearby food banks and donation opportunities.

Won't have this time:*Advanced settings.* Complex settings or advanced features may not be suitable for Grace and can be excluded from the current version.

3. Additional Requirement

Real-Time Notification Feature:(*Dihoon*) The app should provide real-time notifications, sending push alerts to users about the latest needs of food banks and charities. This feature would help users like Dihoon stay informed about the most urgently needed items, making their donations more timely and relevant.

Accessibility Features: (Grace) The app should include accessibility options like adjustable text size and voice prompts. These features will make it easier for users with visual impairments or limited tech experience, like Grace, to use the app effectively.

4. Connection to Survey Data and Justifications for Decisions

Dihoon:

1. Demographics and Occupation: The survey shows that 68.7% of respondents are aged 18-29, with 45.2% being students. This aligns well with Dihoon, a 19-year-old university student. Given that a significant portion of the target audience consists of students, the app must prioritize time efficiency and ease of use to accommodate their busy schedules.
2. Comfort with Mobile Apps: With 59.5% of respondents feeling very comfortable using mobile apps, it reinforces the need for a simple, intuitive interface. As a tech-savvy student, Dihoon would appreciate an app that is quick to navigate, justifying the focus on a streamlined, user-friendly design in the first user story.
3. Donating Behavior and Real-Time Updates: The survey indicates that 52.4% of respondents use social media to learn about donation opportunities, and 47.6% donate when they have extra food. This highlights the importance of timely, relevant information, supporting the inclusion of real-time notifications in Dihoon's second user story to ensure prompt donations.
4. Challenges and Concerns: The survey reveals that 35.7% of respondents worry about privacy and data security, and 38.1% find apps complicated to use. These concerns justify the need for simple navigation and detailed instructions in the app, which aligns with Dihoon's preference for efficiency and practicality.

Justifications for Decisions: The focus on a user-friendly interface and real-time notifications is driven by Dihoon's persona as a tech-savvy, busy student. Prioritizing simplicity and efficiency addresses the needs identified in the survey, ensuring the app is both accessible and effective for the target demographic.

Grace:

1. **Demographics and Residence:** The survey shows that 9.5% of respondents live in rural or remote areas, with a portion being retired. This aligns with Grace, an elderly woman living in the countryside. The challenges faced by users in rural areas, particularly with technology, reflect Grace's situation, making it crucial to design the app with her needs in mind.
2. **Comfort with Using Mobile Apps:** With 26.2% of respondents feeling "somewhat comfortable" or "neutral" about using mobile apps, it's clear that for users like Grace, who may have poor eyesight or limited tech familiarity, the app must

prioritize ease of use. Grace's user stories highlight the need for a simple interface and large fonts, reflecting the struggles some users may have with technology.

3. **Donation Behavior and Information Access:** The survey indicates that 18.7% of respondents rely on local community announcements for donation information, while 52.4% use social media. For elderly users like Grace, who may depend more on community-based sources, the app should offer easily accessible and understandable information. Grace's user story emphasizes the need for clear navigation and instructions to help her complete donations.
4. **Technical Challenges and Concerns:** The survey shows that 38.1% of respondents find apps complicated, and 35.7% are concerned about privacy. These issues are particularly relevant for Grace, who may not be tech-savvy and has poor eyesight. The app's design must be straightforward, with features like voice prompts and larger fonts to ensure users like Grace can navigate it successfully.

Justifications for Decisions: The decision to prioritize a simple, user-friendly interface with features tailored to elderly users like Grace is driven by the survey data. Providing clear, intuitive navigation and options such as voice support or larger fonts ensures that elderly users can participate in donation activities without feeling overwhelmed or confused.

Wei Yang(32741839)

Personas 1:

User Profile



Cecily

About Me

Age: 27

Occupation: Student

Location : Urban area

Transport: Public transportation

Application Use Skill

Very comfortable using mobile apps

Motivation

Cecily is a working graduate student who is very busy but always wants to contribute to her community. She usually gets her information through social media and wanted a convenient way to quickly find the right place to donate food.

Challenge

Cecily often faced the problem that although she was willing to donate, it was difficult to determine which food items were appropriate to donate, and she wasn't sure how to quickly find a location that would accept donations.

Goal

Cecily wanted to use the app to make sure that the food she was donating would not go to waste, but would instead help people in need. And using the barcode scanning capabilities and instant notifications provided by the app, she was able to quickly determine if her food was suitable for donation and find the right place to donate it.

User Story 1

As a student, I would like to scan food barcodes through a mobile app so I can quickly determine if I have the right food for donation.

MoSCoW Priority:

Must have: Barcode scanning feature

The app must include barcode scanning functionality so that students can quickly and accurately determine if food is suitable for donation. This is critical to ensure that students are able to efficiently donate appropriate items to the food bank.

Should have: Database of accepted foods

The app should have a comprehensive database of acceptable food items used to identify food barcodes. This helps users instantly confirm that scanned items meet donation needs and donate them in a timely manner.

Could have: Nutritional information

The app can provide serving or cooking instructions for the scanned item to help students understand what to do with the food they are donating, which can also help make more informed donation choices.

Won't have this time: Advanced search filters

While the advanced search filters help to categorise different types of food items, this feature can be left out of the current version in order to keep the app simple and focused on the primary goal of barcode scanning.

Personas 2:

User Profile



John

About Me

Age: 45

Occupation: Full-time worker

Location : Suburban area

Transport: Private car

Application Use Skill



Generally comfortable using mobile apps

Motivation

John is a full-time worker who is busy during the week but has time on the weekends to get involved in charitable activities. He prefers to get his information through community announcements and wanted a reliable app to help him quickly find food banks that meet his donation criteria.

Challenge

John's main frustration was that while he was willing to donate, he was concerned about not having access to updated information about the needs of the food bank in a timely manner and wasn't sure if he could trust some of the donation locations.

Goal

John wants his donations to actually help people in need. His goal is to make sure his donations are well managed by checking out the reviews and feedback from other users and choosing reputable food banks to donate to!

User Story 2

As a full-time worker, I would like to receive food bank needs updates and agency-specific information through the mobile app so that I can quickly and appropriately select food and pinpoint agency locations to support those most in need of food bank assistance.

MoSCoW Priority

Must have: Real-time updates and push out of food bank information

The app must include a feature that pushes out specific needs regarding food donations in real time. This ensures that staff can make informed decisions about what food to donate in their fast-paced lives.

Should have: Location-based agency information

The app should include a feature that allows staff to view the exact location of nearby food banks and their current specific needs for donated food, as well as navigational software that informs users of the fastest routes and methods to get there.

Could have: Donation tracking and history

The app could offer a feature to track past donations and provide history, allowing the worker to see which agencies they have supported and what items they have donated in the past, fostering a sense of continued contribution.

Won't have this time: Detailed analytics or reporting

Detailed reports on exactly where donated food goes and what the impact is may bring too much information to the user. Not required in the current version for now, to maintain an introductory and friendly user interface and avoid unnecessary complexity.

Additional Requirements

Requirement 1: Food Donation History for User Profiles

Users would like to be able to track their donation history, including which food items were donated to which locations and when. This will help them understand their contributions and make it easier to make similar donation decisions in the future.

Requirement 2: User Ratings and Reviews for Donation Locations

Users would like to be able to view ratings and reviews from other donors for each location, which would help them make more informed donation decisions and ensure they are choosing a trustworthy location.

Analysis/Reflection

In this user-specific study, we created two user personas with corresponding persona charts, user stories, and two additional requirements based on questionnaires and feedback. These elements were closely aligned with the user feedback and analysed to reflect the diversity and different needs of the target user groups, which also laid a solid foundation for the orderly development of the application.

User persona development:

The questionnaire data showed that 65% of the respondents were aged 18-29, 60% lived in urban areas, 57.5% mainly used public transport, and 60% felt very comfortable using mobile applications. The image of the first user, Cecily, was shaped based on this main user group and she represents a young, skilled user group that can use mobile applications. The main challenge they face as a group is the difficulty of identifying suitable food or places to donate.

In contrast, the second user, John, represents an older, financially independent user who lives in a suburban area, is moderately proficient with a mobile phone, and has the ability to provide food donations. This matches the 40% of users who are non-urban dwellers and have average technological proficiency. The problem they face is accessing trustworthy donation information in their busy, fast-paced lives, reflecting users' concerns about the reliability and timeliness of information.

Relevance of User Stories:

Cecily's user story emphasises the ability to quickly determine the suitability of food by scanning the food barcode, directly providing an effective measure to address users' difficulty in determining the suitability of donated food. And John's user story focuses on the pressing expectation for timely updates on need information, which aligns with the 65% of users who want maps and real-time information to be available through the app, all of which can help users reach their goal of donating food more reasonably and efficiently.

Justification of Additional Needs:

The donation history and user ratings and reviews feature for donation locations stem from users' need for transparency and a sense of accomplishment. The history fulfils the need to track contributions, and the ratings and reviews feature enhances the reliability of the information and helps users build trust in the donation location.

Rationalising Decision Making:

Throughout the design process, we built on user data to ensure that every decision was evidence-based. By segmenting user groups, we identified and met the specific needs of

different users, ensuring the application was inclusive and practical. At the same time, targeted solutions were provided, reflecting a user-centred design philosophy.

Impact on the project:

These explorations of user needs will guide us to prioritise the development of key features such as barcode scanning, real-time demand updates, history recording and evaluation systems to ensure that the application is efficient in helping users solve their problems, enhancing the user experience, and facilitating more users to participate in food donation.

Conclusion:

Our project aimed at developing a mobile application to facilitate food donations. The app is designed to address common challenges faced by potential donors, such as identifying suitable donation locations, determining acceptable food items, and staying informed about charity needs. The target audience includes diverse user groups ranging from tech-savvy students to elderly individuals with limited mobile experience. Through user surveys and analysis, the project identifies key user needs, such as a simple interface, real-time updates, and privacy considerations, guiding the app's design. The project emphasizes a user-centered approach to ensure the app effectively enhances the food donation process, catering to various user requirements while promoting greater community involvement.

Appendices

Questionnaire Questions:

What would your age group be?

18 – 29

30 – 40

40 – 50

50 +

What is your current occupation?

Student

Working

At home / Retired

Prefer not to say

What is your primary mode of transport?

Public transport

Personal vehicle

Bicycle

Walking

Where do you live?

Urban area

Suburban area

Rural area

Regional area

How comfortable are you with using mobile apps for daily tasks?

Very comfortable

Somewhat comfortable

Neutral

Somewhat uncomfortable

Very uncomfortable

How do you usually find out which local charities and food banks accept food donations?

- A) Social media
- B) Friends or family
- C) Local community announcements
- D) Don't know where to get the information

What are the most common challenges you encounter when looking for places to donate?

- A) Difficulty finding locations that accept donations
- B) Unsure of which food items are appropriate to donate
- C) Information is not updated in a timely manner
- D) Other (please describe)

Which of the following features did you find most helpful when selecting a donation location?
(Multiple choices allowed)

- A) Using a map to see where to donate
- B) Scanning food bar codes through the camera to check acceptability
- C) Read reviews or feedback from other donors
- D) Getting instant notifications to learn about the needs of the food bank

Would you prefer to receive food bank needs updates via a mobile app?

- A) Yes
- B) No
- C) Doesn't matter

Under what circumstances do you typically decide to donate food?

- A) When I have extra food items
- B) When I see an announcement about the needs of a food bank
- C) When I plan to clean out my refrigerator or pantry
- D) Other (please describe)

What are your biggest concerns about using mobile apps for food donations?

- A) Privacy and data security
- B) Apps are complicated to use
- C) Not being able to find needed functionality
- D) Other (please describe)

What features of the app do you think would make you more likely to use it for donations?
(Multiple choices allowed)

- A) Easy to use interface
- B) Detailed giving instructions
- C) Automatic reminders of giving opportunities
- D) Incentives to donate through a points or rewards system

In the past 12 months, how often have you used mobile apps for charitable giving?

- A) None
- B) Used 1-2 times
- C) More than 3 times
- D) I have used them frequently

Would you like to create a personal profile within the app to receive personalised donation suggestions?

- A) Yes
- B) No
- C) Depends

Which of the following information would be most helpful to you when looking for suitable food items to donate? (Multiple choices allowed)

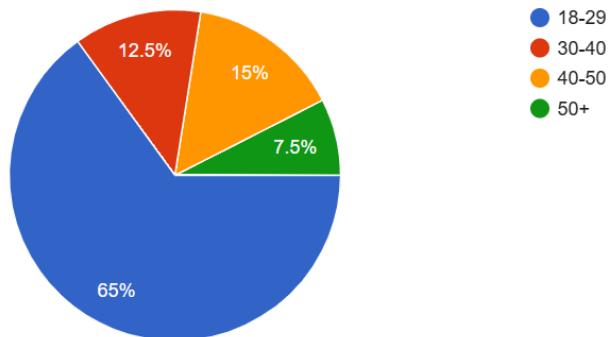
- A) Shelf life of the food
- B) Whether or not it meets the donation requirements
- C) Current demand for the food item
- D) Success stories or stories of food donations

Questionnaire Results

What would your age group be?

(40 条回复)

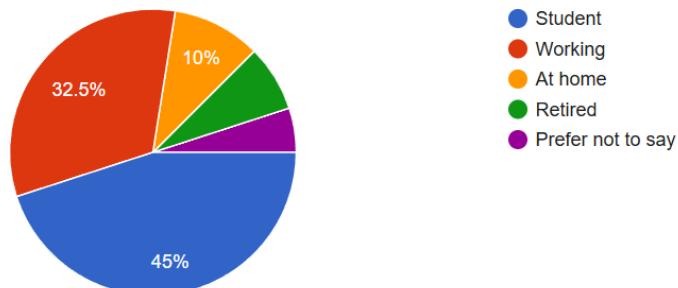
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What is your current occupation?

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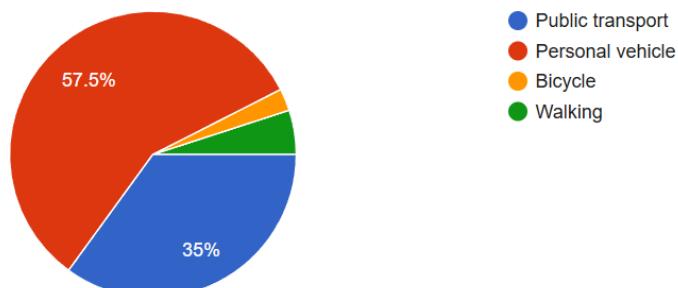
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What is your primary mode of transport?

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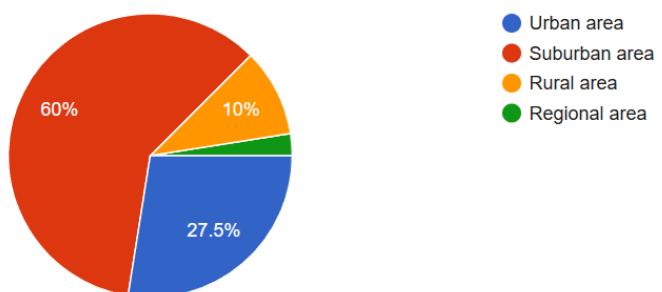
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Where do you live?

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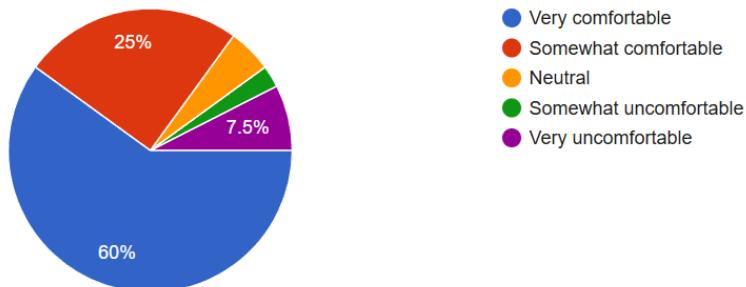
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How comfortable are you with using mobile apps for daily tasks?

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How do you usually find out which local charities and food banks accept food donations?

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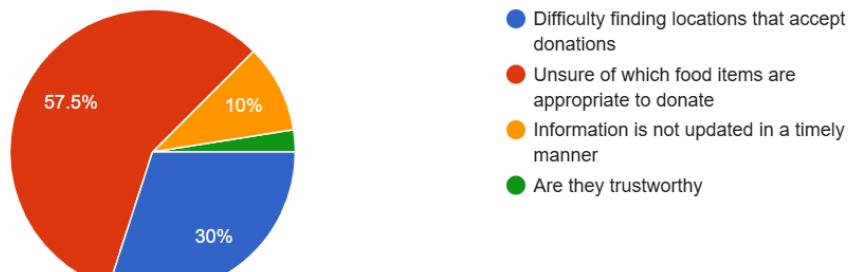
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What are the most common challenges you encounter when looking for places to donate?

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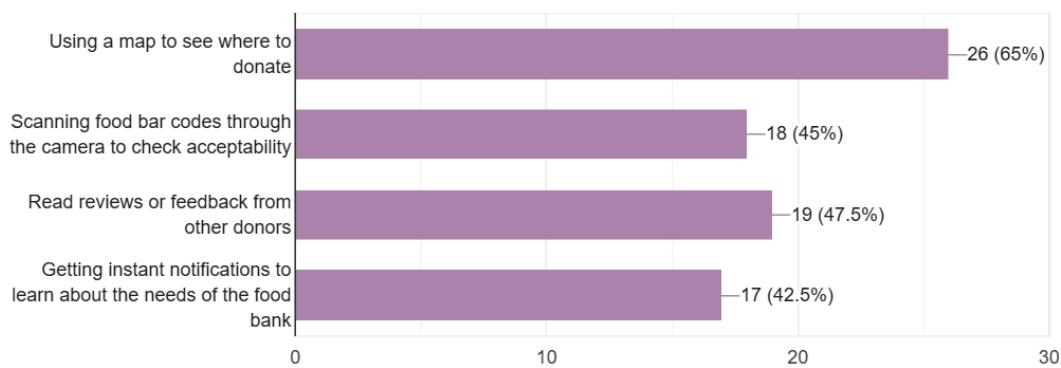
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Which of the following features did you find most helpful when selecting a donation location? (Multiple choices allowed)

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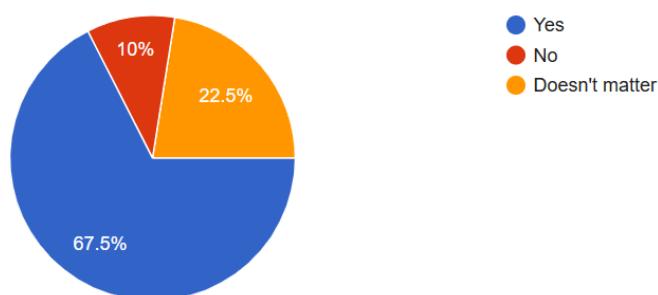
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Would you prefer to receive food bank needs updates via a mobile app?

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Under what circumstances do you typically decide to donate food?

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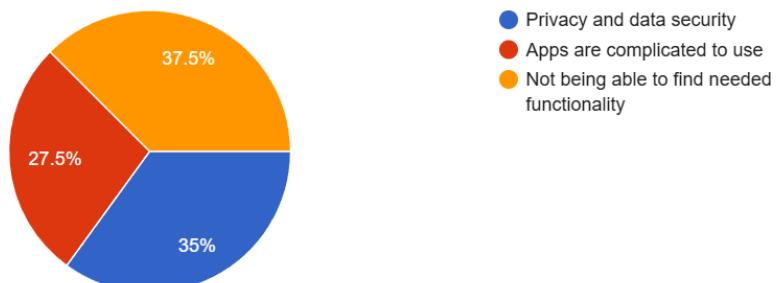
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What are your biggest concerns about using mobile apps for food donations?

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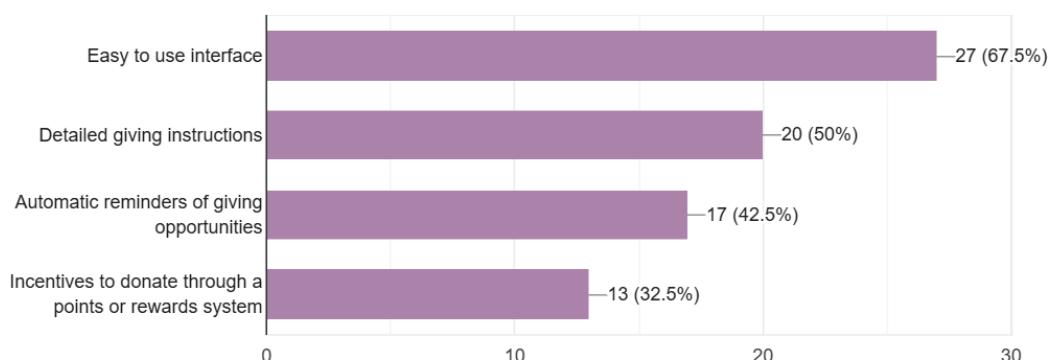


What features of the app do you think would make you more likely to use it for donations?

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(Multiple choices allowed)

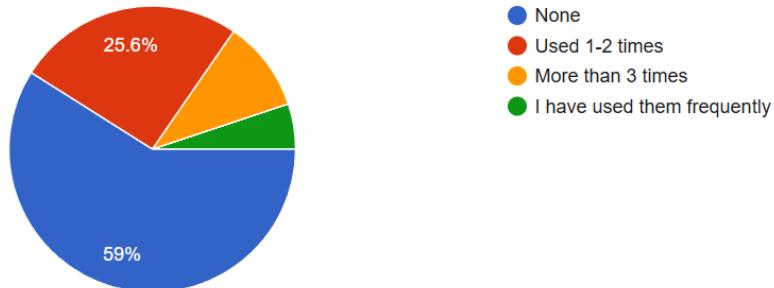
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In the past 12 months, how often have you used mobile apps for charitable giving?

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(39 条回复)



● None

● Used 1-2 times

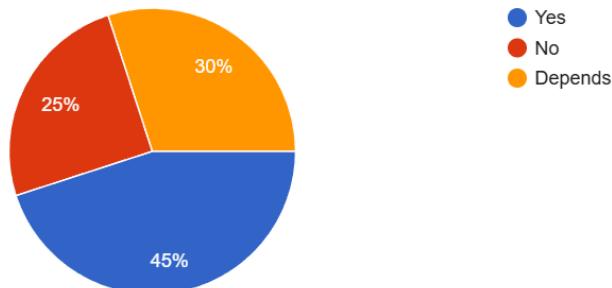
● More than 3 times

● I have used them frequently

Would you like to create a personal profile within the app to receive personalised donation suggestions?

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● Yes

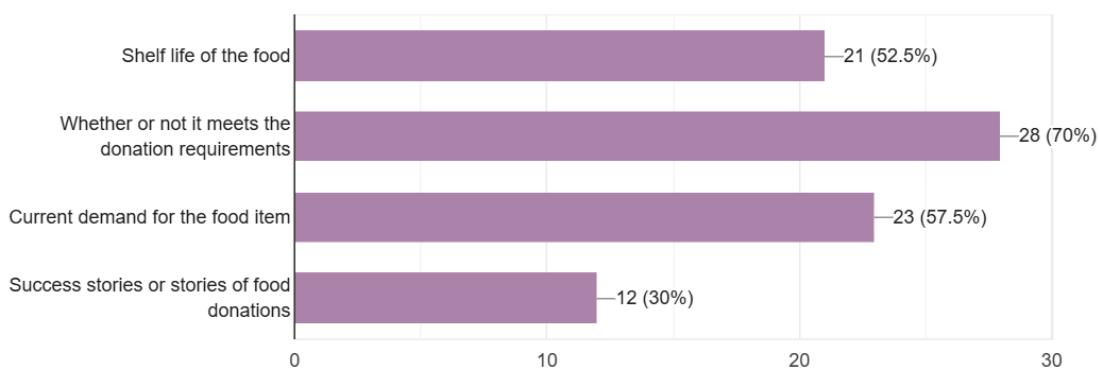
● No

● Depends

Which of the following information would be most helpful to you when looking for suitable food items to donate? (Multiple choices allowed)

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(40 条回复)



Link to google form:

https://docs.google.com/forms/d/e/1FAIpQLSdvPZgx3PjJf6TVP_KeHd37baNpXKpb8dyHKH7geJjRr4LLlg/viewform?usp=sf_link