Project Proposal for Sharing Leftover Food

Team Number: 02
Team Members: Ishita Gupta SN99817512, Jayati Gupta SN34268201, Dhruv Bihani SN93378453, Manjot Singh SN99067191, Nick Chen SN80611197

1 Overview

Describe your MVP.
What is the purpose of this software? Ishita gupta
This software connects individuals who expect to have excess food and individuals who may be eager to receive this food free of charge.
This software aims to help alleviate food insecurity for individuals, who may not have the ability to afford food, by providing them with free, high quality food resources. Additionally, it aims to assist in reducing food waste and offer individuals an opportunity to donate their excess or leftover food. It also encourages a sense of altruism and sharing within the community. This approach helps minimize wastage of food and fosters new connections founded in feelings of gratitude and generosity.

What problem does it solve? Dhruv bihani

What is unique about your solution? Manjot

What sets us apart is our multi-faceted approach and inclusiveness while making our users feel as protected as possible. Our rating system allows food receivers and givers to feel reassured before they go to drop off and pick up their food. Our emergency features also help with this. Our value proposition lies in the simplicity of our app.

What is your value proposition? Manjot Singh
Why is your solution better than others?
QUESTION - should we verify our users?

Use these questions to guide your writing. When you submit your document, remove the bold instructions. The rest of this section has filler text generated by *lorem ipsum* **which is only present to give you a sense of the expected length of the section.**

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetuer id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum.

Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

1.1 Envisioned Usage

What can the user do with your software?

If there are multiple user groups, explain it from each of their perspectives. These are what we called "user scenarios" back in COSC 341. Use subsections if needed to make things more clear. Make sure you tell a full story about how the user will use your software.

An MVP is minimal and viable, so don't go overboard with making things fancy (to claim you'll put in a ton of extra features and not deliver in the end), and don't focus solely on one part of your software so that the main purpose isn't achievable. Scope wisely.

This application serves as a streamlined food sharing platform serving both the food donors and seekers. On the app, the food donors have the ability to list food items they wish to donate, providing important facts such as ingredients and allergens. They can also manage these listings and communicate directly with interested food seekers. On the other side, food seekers can browse the available listings, apply specific dietary filters such as "dairy-free" or "gluten-free," and claim the food they want through a simple "Get" button. For any additional questions or the need to negotiate a new pickup location, in-app messaging is available to both parties. The food donor can contact the seeker if their order is ready to collect at a pickup location and answer additional questions about the food item. The final MVP includes a scrollable list of food items complete with necessary information, the in-app conversation feature specialized dietary filters, a straightforward claiming process, and in-app messaging for effective communication between the two user groups.

2 Major Milestones

Identify the major milestones in your solution and align them to the course timeline. In particular, what will you have ready to present and/or submit for the following deadlines?

List the anticipated features you will have for each milestone, and we will help you scope things out in advance and along the way. Use the table below and just fill in the appropriate text to describe what you expect to submit for each deliverable.

Use the placeholder text in there to guide you on the expected length of the deliverable descriptions. You may also use bullet points to clearly identify the features associated with each milestone (which means your table will be lengthier, but that's okay).

Deadline	Deliverable
Term 1 week 9: Mini Presentation	We aim to be done with the following: 1. App prototype on Figma with completed design 2. Database setup and integration
Term 1 week 13: Design submission	1. Viewing food items in a scrollable list view with pictures and a brief description 2. Main food item post page with ingredients and other details 3. Creating a post for food item 4. Past orders page 5. ER diagram creation 6. Settings page layout (font size, color) 7. User profile page with ratings and reviews 8. UI design interaction flow 9. Sign-up/login/logout feature setup 10. System architecture design documentation **write system architecture that we're using**

	Same type of description here. In addition to the previous feature expectations, aim to have the additional design of the project and the system architecture planned out. The system architecture plan can be shown via a series of placeholder pages that the user can see. The general user interface design needs to be implemented by this point. This includes having a consistent layout, color scheme, text fonts, etc., and showing how the user will interact with the system should be demonstrated. It is crucial to show the tests pass for your system here.
Term 2 week 4: Peer Testing	1. Implementing tags while creating posts 2. Searching by tags and text 3. Filtering by tags and text 4. Filtering by pickup location 5. Setting up a review system for all users 6. Setting a pick up location for the food 7. User can edit their profiles anytime they want 8. Allow users to reserve or schedule food items for pickup 9. Implement a troubleshooting page to answer frequently asked questions from users. 10. Rewards or badges for frequent donors
Term 2 week 8: Peer Testing	Same type of description here. Aim to have an additional two features implemented and tested per team member. As the software gets bigger, you will need to be more careful about planning your time for code reviews, integration, and regression testing. 1. Messaging between the donors and receivers 2. Pre-defined templates for frequent user interactions 3. Blocking feature 4. Adding settings page functionality - increase font size , change background colour 5. Integrating a map that tell you the way to pick up or drop off location 6. Accessibility - voice input, screen reader compatibility, 7. Add alt text requirements by posters and high contrast mode (text and other UI elements are more distinguishable) 8. Option to offer utensils/containers, provided they're natural/biodegradeable/good for the planet 9. Tutorial for first-time users 10. Add notifications to alert users when pickup time is approaching
	Same type of description here. Aim to have an additional two features implemented and tested per team member. As the software gets bigger, you will need to be more careful about planning your time for code reviews, integration, and regression testing.

Term 2 week 13: Final project submission	1. Emergency button - SOS if something happens at pickup location that will alert authorities 2. Implement camera functionality so donors can upload photos of dropped off food. 3. Share food item/profile via a shareable link from the app. 4. Admin testing 5. User testing Same type of description here. Aim to have an additional **one** feature implemented and tested per team member. This is the last stretch, so put more time into testing, debugging, and wrapping up your project nicely and ensuring your project works as intended. You should want to make this project presentable so you can use it in your portfolio in the future.

Table 1: Proposed Project Milestones: Provide any explanation necessary to make your milestones understandable. These milestones need to make sense of the number of people in your team and the number of weeks between each milestone.

3 Technology Stack

Identify the "tech stack" you are using. This includes the technology the user is using to interact with your software (e.g., a web browser, an iPhone, any smartphone, etc.), the technology required to build the interface of your software, the technology required to handle the logic of your software (which may be part of the same framework as the technology for the interface), the technology required to handle any data storage, and the programming language(s) involved. You may also need to use an established API, in which case, say what that is. (Please don't attempt to build your API in this course as you will need years of development experience to do it right.) You can explain your choices in a paragraph, in a list of bullet points, or a table. Just make sure you identify the full tech stack.

For each choice you make, provide a short justification based on the current trends in the industry. For example, don't choose an outdated technology because you learned it in a course. Also, don't choose a technology because one of the team members knows it well. You need to make choices that are good for the project and that meet the client's needs, otherwise, you will be asked to change those choices.

Software Platforms - iOS and Android: These are the two most popular operating systems for smartphones so we target the majority of people. In reality, users are more comfortable with Android and iOS, utilizing these platforms will create a better experience for the user which will ensure that we can deliver the best possible product for a wider range of people.

Front-End/User Interface - Flutter: for cross-platform compatibility so we can target more users and be more efficient by developing from a single codebase. Flutter also has a better interoperability with Firebase.

Data Storage - Firebase - Real time database Firebase is easily accessible and can hold large data sets. It is easy to integrate it in Flutter and interacting with the realtime database is much more efficient and easy. Also, the user's data will be secure and they will have privacy.

Programming Language - Dart - Dart is the language which the Flutter framework also uses. The ease of use and modern syntax makes the language easy to learn and powerful to use for the team on both frontend and backend development.

API - Google Maps API - We will integrate google map API in our app which will help us to set the pick up and drop off locations for the food. It will enhance user experience as they can get the directions to where exactly drop the food or pick the food from.Google Maps also is a well established platform that has far more details than other platforms so integrating Google Maps will provide a better experience for the user.

4 Teamwork Distribution and Anticipated Hurdles

Use the teamwork distribution survey as a conversation starter to talk about the different types of work involved in a software development project. Start thinking about what you are good at as a way to get to know your teammates better. At the same time, know your limits so you can identify which areas you need to learn more about. These will be different for everyone. But in the end, you all have strengths and you all have areas where you can improve. Think about what those are, and think about how you can contribute to the team project. Nobody is expected to know everything, and you will be expected to learn (just some things, not everything).

Use the table below to help line up everyone's strengths and areas of improvement together.

Category	**Dhruv Bihani S1**	**Ishita Gupta S2**	**Jayati Gupta S3**	**Manjot Singh S4**	**Nick Chen S5**
Experience	*Description of the previous project that would be similar to the technical difficulty of this project's proposal.*	Created an android application within a team that kept track of medicines users had to take using Android Studio.	Created an Android application last year with a team that was a rating system for the on-campus dining hall - Pritchard		
Good At	*List of skills relevant to the project that you think you are good at and can contribute to the project.*	*These could be soft skills, such as communication, planning, project management, and presentation.* I'm good at project planning, project documentation, coding, and design.	*Consider different aspects: design, coding, testing, and documentation. It is not just about the code.* I'm good at project planning, communication, presentation, and setting up frameworks for code	*You can be good at multiple things. List them all! It doesn't mean you have to do it all.*	*Don't ever leave this blank! Everyone is good at something!*

Expect to Learn	Understanding your limits is important. Where do you expect you will need help?	*It may not be technical skills. You may be a good coder but never worked with people in a team. Maybe you built a website but not used a framework.* I expect to learn about the tech stack we're using including Firebase and Flutter as I do not have any previous experience with them.	*It may also be a theoretical concept you already learned but never applied in practice.* I expect to learn more about databases and how to set up Flutter applications as I've never created a cross-platform app before	*Think about different project aspects: design, data security, web security, IDE tools, integration testing, CICD, etc. There will be something.*	*Don't ever leave this blank! We are all learning.*

Table 2: Team Experience, Expertise, and Areas of Learning

Category of Work/Features	**Dhruv Bihani**	**Ishita Gupta**	**Jayati Gupta**	**Manjot Singh**	**Nick Chen**
Project Management: Kanban board	✓	✓	✓	✓	✓
Technical Direction: Time Estimation, Making Programming Choices			✓		✓
Technical Help: Finding Technical Solutions	✓	✓		✓	
Troubleshooting: The Go-To When Others Are Stuck	✓	✓	✓	✓	✓
System Architecture Design	✓			✓	
User Interface Design		✓	✓		✓
App prototype on Figma with completed design	✓	✓	✓	✓	✓
Database setup and integration	✓			✓	
Viewing food items in a scrollable list view with pictures and a brief description	✓				
Main food item post page with ingredients and other details			✓		

Creating a post for a food item		✓			
Past orders page					✓
ER diagram creation		✓			
Settings page layout (font size, color)	✓				
User profile page with ratings and reviews				✓	
UI design interaction flow			✓		
Sign-up/login/logout feature setup				✓	
System architecture design documentation					✓
Implementing tags while creating posts	✓				
Searching by tags and text					✓
Filtering by tags and text				✓	
Filtering by pickup location		✓			
Setting up a review system for all users				✓	
Setting a pick-up location for the food		✓			
Profile editing			✓		
Allow users to reserve or schedule food items for pickup					✓
Implement a troubleshooting page to answer frequently asked questions from users	✓				
Rewards or badges for frequent donors			✓		
Messaging between donors and receivers				✓	
Pre-defined templates for frequent user interactions			✓		
Blocking feature				✓	

Adding settings page functionality - increase font size, change background color	✓				
Integrating a map that tells you the way to the pick-up or drop-off location					✓
Accessibility - voice input, screen reader compatibility		✓			
Add alt-text requirements by posters and high-contrast mode (text and other UI elements are more distinguishable)			✓		
Option to offer utensils/ containers, provided they're natural/ biodegradable/ good for the planet	✓				
Tutorial for first-time users		✓			
Add notifications to alert users when the pickup time is approaching					✓
Emergency button - SOS if something happens at the pickup location that will alert authorities				✓	
Implement camera functionality so donors can upload photos of dropped-off food					✓
Share food item/profile via a shareable link from the app		✓			
Admin testing	✓				
User testing			✓		
Presentation Preparation	✓	✓		✓	
Design Video Creation		✓			✓
Design Video Editing	✓		✓		
Design Report		✓		✓	✓
Final Video Creation		✓	✓		
Final Video Editing	✓		✓		✓
Final Team Report	✓	✓	✓	✓	✓
Final Individual Report	✓	✓	✓	✓	✓

Table 3: Expected Areas of Contributions: Explain how things are assigned in the caption like this, or put the explanation into a separate paragraph so the reader understands why things are done this way and how to interpret your table.

Technical features are assigned to 2 people at most depending on their strengths and what they want to improve on. and team documentation is assigned equally to everyone to ensure we all have an equal contribution.