

# Software Requirements Specification

for

## Meal Sharer

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## Revision History

Name	Date	Description	Version
Sumaya Siddique	10.11.2021	Modified assumption and user stories	1.0
Nasia Tasnim Roshnee	11.11.2021	Modified User Needs and updated user stories	1.1
Monisha Dey	12.11.2021	No change	1.1

# **1. Introduction**

According to a recent analysis, 1.3 billion tons of food are wasted each year, with leftovers representing one-third of all food consumed. To develop a system that lowers the amount of food that is thrown away. The project's goal is to create a mobile application that allows users to give away leftover food by informing neighboring users (NGOs, Volunteers) about the food that is available. It can be claimed by required users, and it is distributed according to priority. The majority of the population today uses smartphones with active internet connections, which is the basic requirement for this product to function properly.

## **1.1 Purpose**

“Meal Sharer-Donate food & spread the smile” is a cross-platform mobile application that provides the ability to donate leftover food to all needy people or organizations. This application will make it easier for everyone to donate anything they desire in the simplest and least troubling way. If someone has leftover food, they can register their food quantity and address it in that application. On the other side, it enables others to communicate information about their needs and request assistance in a modern and less embarrassing way and also allows organizations to put up their requests, that is, items required by them if any. This project is provided to help people who are unable to assist themselves, as well as to encourage people to take action by giving or creating profiles for people they know who may need help. This food redistribution project is a hugely effective social innovation that combats food waste and poverty.

## **1.2 Intended Audience**

The software requirements specification is intended to:

1. Developers
2. Project Testers
3. Marketing Department
  - a. Commercial management sector
  - b. Sales Executive

## **1.3 Intended Use**

### **1. Developers**

Developers can use this SRS to quickly understand what the project is about, which aspects they should concentrate on, which aspects they should enhance, and whether there is any room for new features or functions in any upgrade.

## **2. Project Testers**

This SRS can be used by testers to test project work according to specifications. This will make testing more organized because testers will be able to quickly figure out where to look and what error or bug they should be looking for thanks to SRS.

## **3. Marketing Department**

We will try to focus on the topic of getting people to know about our project by SRS to the marketing department along with the Commercial Management sector Sales Executive component. We can ensure that our promotional program is running smoothly, and our marketing staff can simply brief our clients or users on the advantages of our project and how they will benefit from using our application.

### **1.4 Product Scope**

This is mostly a donation management project. Meal sharer is for the people who want to help the needy by donating food but are unaware of how exactly they can execute that and the people or organizations who need food. By this application, a network is established between donors and the actual needy people to whom the donated item is sent.

#### **Benefits of Meal Sharer:**

- Users can play role in saving food wastage and helping the needy.
- Keep track of wastage food for canteens, marriages, restaurants, and family get-togethers and functions.
- Users can solve many economic problems.
- Users can put up their requests according to their needs.
- Users can make conversation with needy people or organizations.

#### **Objective of our Application:**

- Give opportunity to people to help the underprivileged.
- Try to fulfill basic necessities for people.
- Connect the people in need to the people who want to donate.

#### **Goals:**

- Our project will assist the underprivileged by linking them with donors directly.
- Our application shall aim to mitigate issues like lack of awareness among donors, lack of transparency in the donation process and thus act as a bridge between the people in need.

## 1.5 Risk Definitions

Risk definition includes future harms that could be possible on the software due to minor or unnoticeable mistakes in software development projects or processes, Our app includes risks because it does not have measures to mitigate the risks, and it does not guarantee risk-free interactions between users and the service providers.

Some risks are defined below that can occur in these features:

- Conversation between the doner and the user may be disrupted if the network connection is unreliable.
- Server traffic can be caused by having too many users online at the same time.
- In the case of Insufficient Authentication, It's possible that apps may have uptime requirements that need online authentication.
- The server cannot handle an excessive number of requests. There may be issues with the location system in that instance.

## 2. Overall Description

### 2.1 User Classes and Characteristics

User	Can view donated food lists, can put up a request for available food, can openly discuss the supply items, can choose from and where food is being delivered.
Admin	Administrate the whole application
System	Authentication, Notification

### 2.2 User Needs

Users can benefit on both sides by utilizing our program. For example, if a user needs to donate food to a needy person, they can easily do so, and on the other hand, indigent individuals will use this application for their difficult situations, such as a lack of food. A user can also contact an organization for improved communication on the subject of food donation. Our meal request service will ensure that everyone in our society has the opportunity to obtain nutritious food for themselves and their families.

## **2.3 Operating Environment**

The following is the operating environment for the “Meal Shearer”:

1. **Operating system:** Android & iOS.
2. **Database:** Firebase.
3. **Server System:** Google cloud.
4. **Platform:** Mobile application.

## **2.4 Constraints**

For every project, there are some restrictions and risks that we need to consider in order to resolve and ensure our project's ultimate success. Some constraints are listed below:

1. The application must be written in the Dart programming language.
2. The developed system must be compatible with the client's operating system, which is Android and iOS.
3. For Network issues, any mobile product has to contend with network latencies and failure points. Planning for these earlier on, or we may find our users losing because they keep staring at a ‘Try again later’ or ‘Connecting...’ message.
4. We have two months to complete the project.

## **2.5 Assumptions**

The user is assumed to be familiar with the mobile application since the application is a mobile-based application. To communicate with the other user we are assuming that the user knows English. To access the application, the user is assumed to have a smartphone, Tablet, or other preferred electronic devices, and a stable internet connection. The user also requires an email or contact number to verify confirmation to donate and request food. We are further assuming the availability to access accurate information about the donor and donor-recipient.

# **3. Requirements**

## **3.1 Functional Requirements**

### **1. As a user**

I need to register and create a profile  
so that I can use all the features of the application.

**Confirmation:**

- The User (Donor/Donor Recipients) needs to provide First name, Last name, Phone number, and Location.
- User's registration will not be completed if any of the fields remain empty or any information seems invalid.
- When registering, the application shall allow users to authenticate using their Email and password.
- Users will get a confirmation email on the email address they provided earlier to verify their account.
- Users can also log in to their account using their Google account.
- Users shall be able to edit/delete data on their profiles.

**2. As a user**

I want to maintain my profile with accurate information; if there is anything missing, I'd like to add it.

So that I can always be aware of my consequences

**Confirmation:**

- Users can add any personal information if there is missing
- Users can have the ability to alter information if necessary.
- Users will be able to add their bio

**3. As a user**

I'd like to include my present location to help with the tracing process.

So that I am easily accessible

**Confirmation:**

- Users will be capable of inserting the current location.

**4. As a user**

I want to donate food/food ingredients

So that I am able to contribute food as I like.

**Confirmation:**

- User has to choose the donate option.
- User must select one of the following alternatives, for example, if the user wants to give food for dinner, the user will select the meal option with a description
- The quantity of food must be specified by the user.
- Users will be given the option of selecting an appropriate day and time for food donation.
- User has to specify the place where they will drop off their food.
- Users must ensure that the food they are donating is of good quality.



### **5. As a user**

I'd like to make a food request.

In order for me to be able to obtain my desired food.

#### **Confirmation:**

- User has to choose the Food request option.
- Users must choose one of the following options, for example, if they want to have food for supper, they should choose the meal choice with a description.
- The user must specify the amount of food to be consumed.
- Users will be given the option of selecting an appropriate day and time for picking up the food
- User has to specify the place where they will pick up their food.

### **6. As a user**

I want to communicate with another user

So that, I can get answers to additional queries.

#### **Confirmation:**

- Users can openly discuss their supply foods/food ingredients.
- Users can tap to call the listed provider.
- Users can send mail.

## **3.2 Nonfunctional Requirement**

### **Performance Requirements**

- The system must be loaded within 2 - 4 seconds.
- The system should be able to handle high traffic from various devices.
- The application should run smoothly if there are more than five thousand people working on the same project.

### **Scalability Requirements**

The application is highly scalable; It can be scaled up to millions of users because it is using the google cloud platform.

## **Security Requirements**

Because only authenticated users can access the server, the system should be completely secure. It should take into account the following three factors:

- **Confidentiality:** The user is able to determine who has access to their information.
- **Integrity:** Only account owners will be allowed to make changes to their data.
- **Availability:** At all times, the application must be accessible.

## **Safety Requirements**

System use must not cause any harm to human users. Data in the database should not be loose or damaged.

## **Maintainability Requirements**

The system should be easily maintainable to allow for additional upgrades that can be implemented in the future.

## **Portability Requirements**

This donation management system is a cross-platform mobile application; that means all mobile phones with LIVE internet connections can be used for data transferring.

## **Appendix A Glossary**

**SRS:** A software requirements specification (SRS) is a document that explains what the software will accomplish and how it will function. The software requirements specification puts out functional and non-functional requirements, as well as a set of use cases that explain how the software should interact with the user for a flawless interaction.

**Cross-platform apps:** Cross-platform mobile development is the creation of software applications that are compatible with multiple mobile operating systems. Originally, the complexity of developing mobile apps was compounded by the difficulty of building out a backend that worked across multiple platforms. Cross-platform apps are great when you want to: Build your app 50% faster. Build one app for both iOS and Android. Get to market faster.

**NGO:** Nongovernmental organization (NGO), a voluntary group of individuals or organizations, usually not affiliated with any government, that is formed to provide services or to advocate a public policy.

**Google Cloud Platform:** Google Cloud Platform is a suite of public cloud computing services offered by Google. The platform includes a range of hosted services for compute, storage and application development that run on Google hardware.

**Firebase:** Firebase is a development platform known originally for its real-time database that's still at its core a multi-node, key-value database optimized for synchronizing data, often between user machines or smartphones and centralized storage in the cloud.