SOFTWARE ENGINEERING LAB

**BON APPÉTIT - Food Distribution System**

Software Requirements Specification

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# **INTRODUCTION**

India is **ranked at 102** on the global hunger index, an index of 117 countries also among 25 countries with the highest rates of undernourishment and micronutrient deficiencies, which has a strong negative impact on its population’s health.

**Nutrition continues to be the main challenge.** India has a very high prevalence of undernourishment and micronutrient deficiency, for which it is placed at the bottom and second from the bottom, respectively in the **Food Sustainability Index Scores** (after Ethiopia).

The major causes in India can include rapid growth of population, low agricultural productivity, natural calamities, development of commercial crops, changes in the consumption pattern, increase in income demand for food, economic development and urbanisation, hoarding and black - marketing. **An app has to be developed that can automate few tasks that occur during the interaction between organizations that are willing to donate food and people who are in need of it so that the process of food distribution becomes an easy-to-use & no-cost service.**

# **PURPOSE**

The purpose of this document is to list the requirements of a food distribution system that can act as an interface between the points of contact of different food- producing organizations and the management of orphanages and other group homes across a given region.

Developers should consult this document and check the revisions made in this document as the only source of requirements for this project.  
No other statements that are told verbally or in written form should be considered.

**INTENDED AUDIENCE**

The intended audience for this app are:  
1. Event Management Organizations, Restaurants, Cafes and small event hosters.

2. NGOs involved in food distribution to the needy on a daily basis.

3. Orphanage homes & Old - Age homes who are seeking help in the form of food.

# **PROJECT SCOPE**

# The application runs on a mobile platform (Android) and this food distribution system approach helps orphanages to get in touch with the leftover food (in an edible state) coming from event managing organisations or restaurants. These organisations pack the food which was not served and send them to orphanages. Through this we are making sure that the food is not wasted and no person sleeps hungry. The app is majorly based on two aspects: 1. Charitable Giving

2. Sustainable development goal - 2

**REFERENCES**

<https://nationalaccordnewspaper.com/humanitarian-organisations-donates-food-item-others-to-queen-esther-orphanage-home/>

<http://careorphanage.life/>

Interaction with foundations and trusts which help in providing nutritious food to undernourished children kindled the thoughts of choosing this idea.

**OVERALL DESCRIPTION**

**PROJECT PERSPECTIVE**

A well-designed interface between various organizations that deal with food like event management companies, restaurants or families that host functions and organizations that help in distributing food to the needy, orphanages, group homes etc. This might include the following features:  
1. Search functionality module.  
2. Feedback module.  
3. GPS based location tracking module.  
4. Module for ordering the dishes according to the availability.

5. Login module.

**PROJECT FUNCTIONS**

People with varying levels of familiarity with computers will mostly use this system.

With this in mind, an important feature of this software is that it will be relatively simple to use. These are the enhancements to the basic features in the proposed project.

1. Adding filters option to search functionality
2. Providing child- friendly & senior citizen friendly classification in the available dishes.
3. Keyword suggestions for feedback experience.

**OPERATING ENVIRONMENT**

-> FLUTTER environment which is a Google’s UI toolkit will be used for building beautiful, natively compiled applications for mobile, web, and desktop from a single codebase. By using flutter we will be able to have faster development , expressive an flexible UI and a native performance.

-> The basic storage requirements are met by using a No-SQL database like MongoDB. The reason for choosing a No-SQL database is that they are lightning-quick and handle huge unstructured pieces of data very well.

**EXTERNAL INTERFACE REQUIREMENTS**

Performance Requirements:

**-> User Satisfaction: -** The app is such that it stands up to the user expectations.

**-> Response Time: -**The response of all the operations is good. This is made

possible by careful programming.

**-> Error Handling: -** Response to user errors and undesired situations should be taken care of to ensure that the system operates without halting.

**-> Safety and Robustness: -** The system is able to avoid or tackle disastrous action.

In other words, it should be foul proof. The system safeguards against undesired events, without human intervention.

**-> Portable: -** The app should not be architecture specific. It should be easily

transferable to other platforms if needed.

**-> User friendliness: -** The app is easy to learn and understand. A native user can

also use the system effectively, without any difficulties.

# **HARDWARE REQUIREMENTS**

# Android device with developer options to test the flutter app.

1. Any PC that meets the requirements for the functioning of Android Studio(JetBrains IntelliJ IDEA)

**SOFTWARE REQUIREMENTS**

# Android Studio with Flutter SDK

1. Flutter & Dart plugins in the IDE.

# **USER INTERFACES**

The authorization service validates if the applying organization is licensed and hold a good reputation in the society

The users ( NGOS) will be able to take up the request from the event organisers and act accordingly.

# **CONSTRAINTS**

→ The registered NGOs must distribute the food without any discrimination on basis of race, religion, etc.

→ Quality of the food should be up to the mark.

→ Delivery of food is done properly.