

SE 216 – SOFTWARE PROJECT MANAGEMENT

Spring 2023-2024

Project Proposal

FOOD BRIDGE

Problem Definition

There is too much food waste all throughout the world. While most households are wasting food by buying too much and not using all, those that are in need do not have access to enough food. This problem definition centers on the development and implementation of a mobile application designed to distribute food to individuals and communities facing food insecurity. The Food Bridge project aims to address these challenges and ensure food donations are delivered more effectively to those in need. This project aims to reduce food waste, reduce the burden of food costs on states, and provide food aid to those in need, especially unemployed people and asylum seekers, who increased with the pandemic period, in a more fair, sustainable, and easy way by using the power of technology and innovation.

Background Information

According to the latest data presented in the 2023 Report on Food Security and Nutrition in the World by the Food and Agriculture Organization (FAO) of the United Nations, an estimated average of 735 million people worldwide are facing hunger or inadequate nutrition. Additionally, throughout the entire food value chain from production to transportation, storage, distribution, and finally consumption, food is lost and wasted. According to the United Nations Environment Programme, approximately 570 million tons of food waste are attributable to household habits worldwide each year. On a personal level, every individual wastes an average of about 74 kg of food per year.

In countries with high economic power and maintaining the characteristic of a social state such as the United States and Canada, there are institutions called Food Banks. The aim of these institutions is to provide free food assistance to the poor, unemployed, or asylum-seeking individuals. In this context, food banks contribute to both preventing food waste and losses in their localities and reducing food insecurity. However, these organizations face challenges such as limited coverage, lack of awareness among many people about these practices, and the constant need to collect donations. Additionally, increasing unemployment due to the pandemic exacerbates poverty and strains state budgets with expenses incurred by food banks. Furthermore, in countries without a social state, such organizations do not even exist. It is crucial for people in need to easily access food from the right location and know where the food they need is located in advance.

The Food Bridge application comes into play at this point. The application integrates expired or surplus food available to citizens and businesses into its system without relying on any government food support. Individuals in need can then locate the food bank closest to them, check the status of the food they need and get them. Thus, the application prevents food waste, addresses hunger issues, and also serves as a form of social responsibility project by connecting the country and its citizens.

Objectives

- Reduces food waste: By reminding users of products approaching their expiry dates, it allows users to consume these items before they expire, thus reducing food waste.
- Meeting Food Needs: Meeting basic food needs by providing easy and quick access to people in need of food aid.
- Increasing Social Solidarity: To increase social solidarity and strengthen the culture of cooperation by creating a bridge between those in need and those who want to donate.
- Increasing Efficiency: The application increases people's productivity by increasing their access to food every year.

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- Provides convenient reminders: Instead of manually tracking expiry dates, the app simplifies tasks with automatic reminders.

Approval Signatures and GitHub Accounts

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