

# Design Competition – 1

Team 9

Good Food Waste

## *Problem description*

Americans throw away almost as much food as they eat because of a “cult of perfection”, deepening hunger and poverty, and inflicting a heavy toll on the environment. Food waste can be described as a “farm-to-fork” problem. Produce is lost in fields, warehouses, packaging, distribution, supermarkets, restaurants and fridges.

Per Food and Agriculture Organization, approximately, 40% of food in the US goes to waste. Consumer and food service joints are the major source for food wastage in the marketing chain in US.

## *Existing solution*

Reducing waste make good business sense! To organize a successful waste management for your establishment that will minimize it to a minimum and utilize existing waste in the best possible way you need to do the following actions:

1. Create a team of responsible persons for this job
2. Track and analyze the waste in a restaurant
3. Review the documentation on the purchased goods and review the business decisions
4. Conduct inventory frequently to compare purchase and quantity of garbage
5. Change menu to minimize quantity of leftovers
6. Create a rule for this program
7. Recycle everything what can be recycled!

*For this job, you and your employees will be rewarded. Some of the great results are:*

- Reducing food costs and generate revenue
- Making impact on the creation of a positive image
- Improving foodservice practices
- Improving your equipment
- Positive impact on employee morale
- Positive impact on the environment

You can hire a professional team to do a waste audit or you can do it with your team. Who should be in the team? Depending on the restaurant capacity and scope of the operations performed in the restaurant team may consist of one or more persons. It would be best if these persons are involved in the preparation of meals, because they are familiar with the amount of specific ingredients that are used when preparing certain dishes. On the other hand, the staff in charge for cleaning and washing dishes are familiar with the type and quantity of garbage that left after customers finish with eating.

## Problem Solution

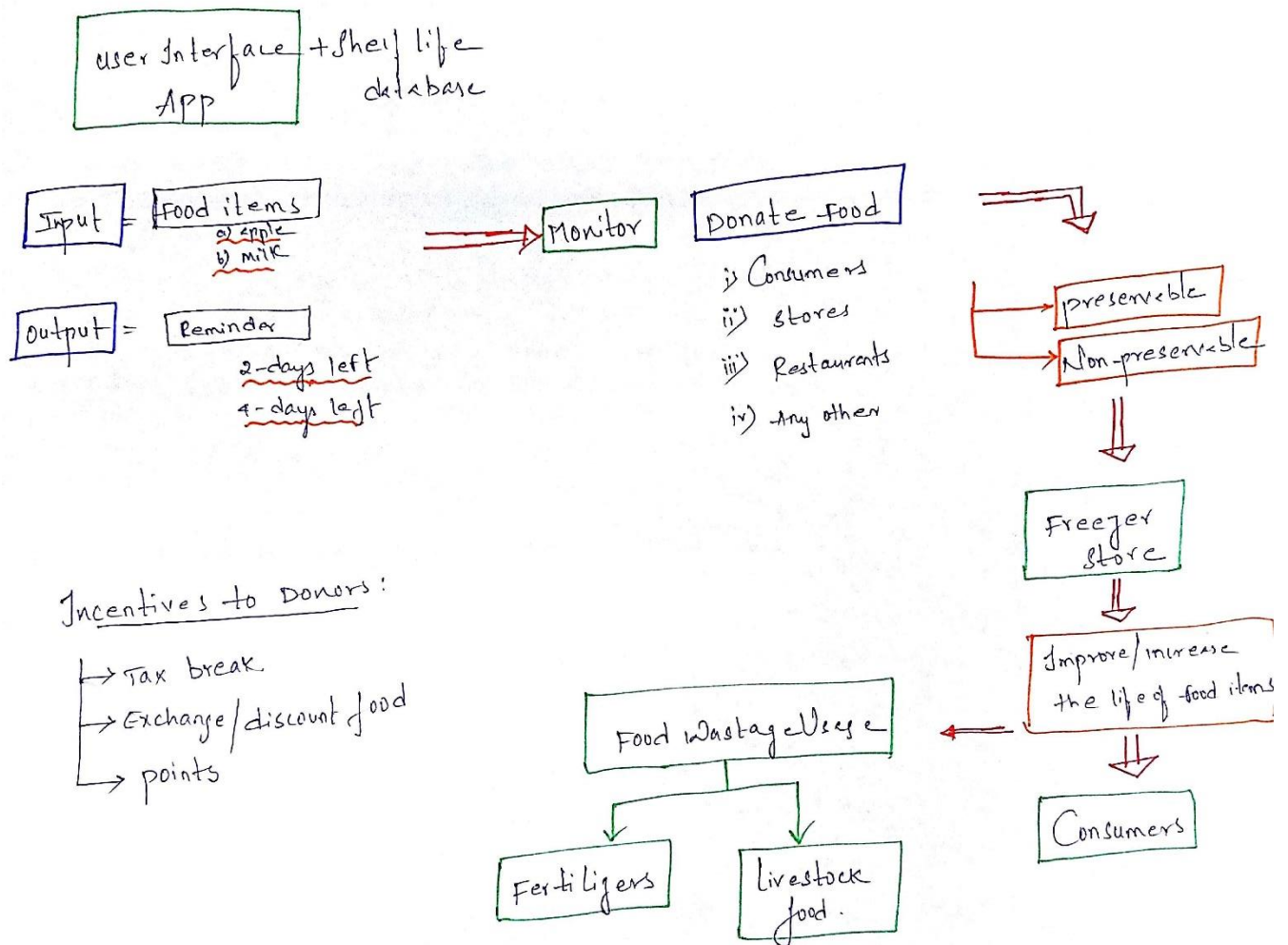


Figure 1: Schematic of the Good Waste Food System.

- First, we will develop a *user interface application* which contains the shelf life data base of food items.
- This app will be used by restaurants, party organizers, supermarket shops, communities, general household, etc.
- We give inputs to the application of the items we purchase for which we get an output as a reminder of days' lefts for expiry.
- Based upon the output the consumers decides whether to continue with the usage of this item or to donate it to a "Freezer Store".
- Before we take any food, we monitor the quality of the food and classify it to preservable and non preservable.
- All the preservable items will be stored in the freezer to improve the life of the product and keep for purchase in the Freezer Store.
- Whereas all the non preservable items will be moved to *food wastage usage plant*. Where wasted food is either converted into fertilizer, food for life stock or electricity (via biogas plant).

- Further we will also track the preservable food with the help of same user interface app and calculate the new shelf life of the same product.
- The app will notify the Freezer Store to scarp the product if it reaches the threshold of its expiry.
- Freezer store will scarp these products to a plant which has two divisions (operated by the government)
- These plants will either converted into fertilizer, food for life stock or electricity (via biogas plant).
- To encourage the donors, we are planning various incentives such as *Tax Break, Exchange/ Discount Food or assign points which can be redeemed.*

### ***Users and Buyers:***

- Household consumers
- Restaurants
- Super markets
- Communities
- Parties
- Shops
- Franchisee stores
- Farmers
- The customer of this solution is the everyman. Everyone who has redundant food is our prospective customer. The sense of honor is the major impetus for food donation. Economical reward is the additional motivation.
- The buyer of this solution is charitable organizations. This food donation project need financial support and organization help. Charitable organizations can work with supermarkets to sell those donated foods or directly share them to homeless people.

### ***One-Sentence Pitch***

“Finally, a strategy to combat the hidden epidemic of wasted food”