**Decision Models: Project**

Despite the overwhelming food supply, people still go hungry. This project is a way to come up with a part of the solution to a global problem.

Restaurants produce food in abundance to meet their demands. Some of this food gets wasted or thrown. We are modelling a scenario where we take the food from these restaurants and give it to the ones in need through our tie-ups. The tie-ups are organisations (NGOs) or religious places where the poor come to be served free food.

Food collected at closing time t= time at start of day (t+i)= time food delivered

at ‘i’ th tie-up

At the restaurant, the food waste quantity will vary everyday (it will be higher on weekends compared to the weekdays). The food waste collected after the restaurant closes (t) will be stored in special storage trucks with inbuilt refrigeration (We do this to avoid extra costs of storing the food in a warehouse and transporting it till there). The food stored in the truck at night will be transported to the tie-ups in the morning (t+i) depending on the demand and capacity of the tie-ups. Each tie-up will receive some amount of food at an allotted hour.

The decision at time t is to fill the truck with a certain quantity of food to meet the forecasted demand at the tie-up.

The decision at time t+1 is to decide the quantity to send after knowing what the actual demand is at the next tie-up.