

SCHOOL OF ENGINEERING AND TECHNOLOGY

A PURDUE UNIVERSITY SCHOOL Indianapolis

TMF Pantry Mobility Project

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Abstract

The project consisted of cross-functional teams comprised of students from multiple disciplines at IUPUI, including Herron School of Art and Design, Luddy School of Informatics, as well as Kelley School of Business. Each crossfunctional team was assigned a pantry and tasked with meeting the individual needs of that pantry. By combining the expertise of each student discipline, we were able to address the needs of each pantry individually.

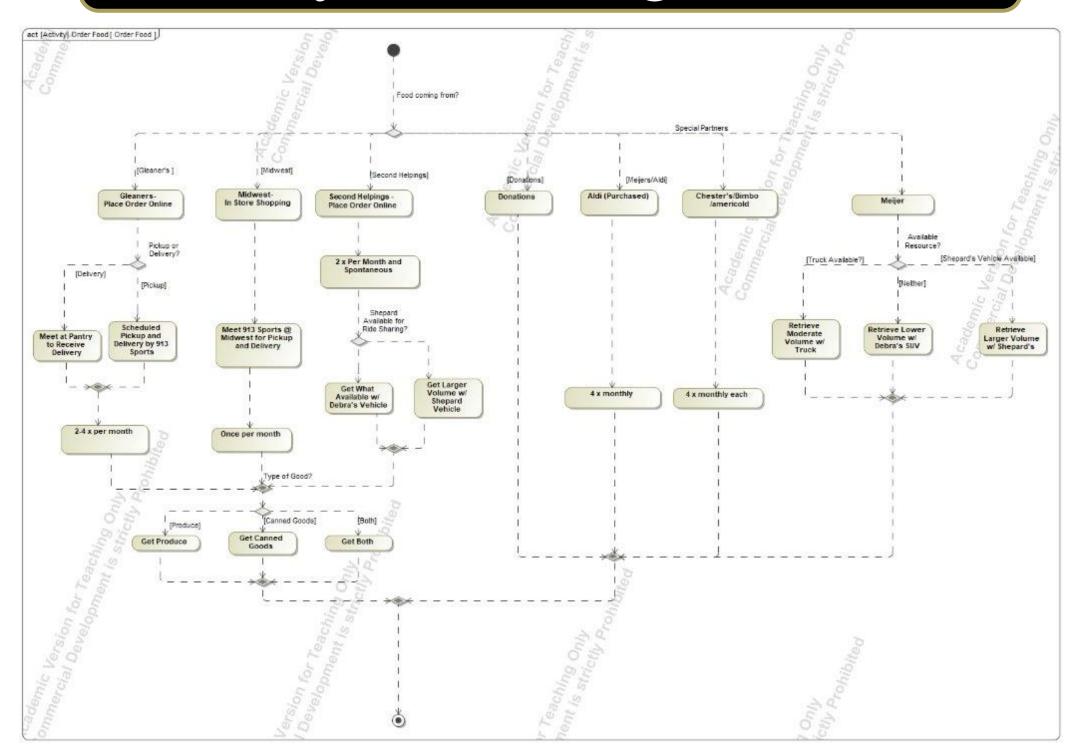
There is still a large food need in Marion County that is unmet. An improvement in food pantry operational efficiency could make significant progress towards meeting this need. Additionally, food pantries oftentimes make operational changes on an as-needed basis. We believe it was beneficial to consider pantry operation from a wider perspective to identify areas of improvement.

Requirements

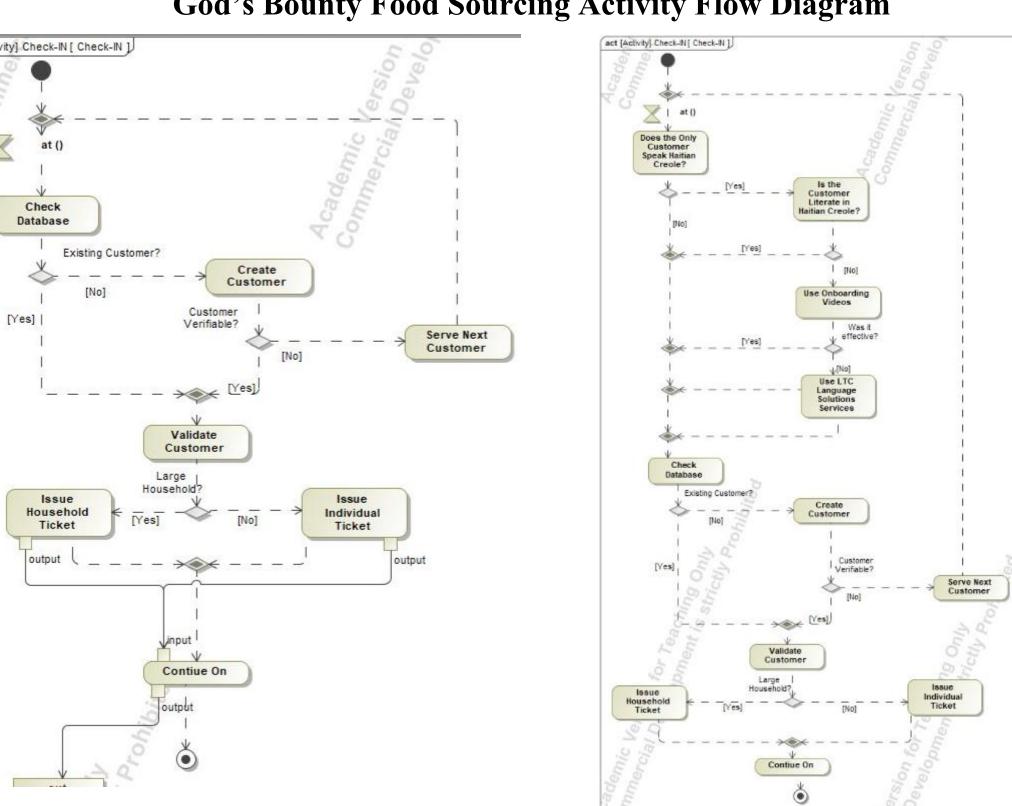
Technical Requirements:

- •Food Pantry operational efficiency shall be improved.
- •All aspects of food pantry operation shall be accounted for.
- •Integration of suggested pantry operation changes shall not impede pantry operation for any amount of time.
- •Each pantry shall be addressed individually. No solution shall be implemented universally.
- •A priority shall be placed on maintaining the integrity of the human interactions involved in running the pantry.
- •The volunteer commitment to implementations shall be minimized.
- Physical limitations of the food pantry volunteers shall be accounted for.
- •Implemented solutions shall work to minimize food waste.

System Diagrams



God's Bounty Food Sourcing Activity Flow Diagram



Old Bethel – Old vs New Check In Process Flow

Problem Statements

God's Bounty:

God's Bounty had one full time staff member who was responsible for picking up food 6 days a week in her personal vehicle. She felt that if she was able to get more food into the pantry then she had the storage and means to distribute it.

Old Bethel and Partners:

Old Bethel informed our engineering representative that their biggest issue is related to a large influx of Haitian Creole speaking members of their community. They had no formal system in place to help these community members, and therefore faced extreme efficiency issues when those members would come to utilize the pantry.

Results

This project will be carried on by future teams at IUPUI. By creating a Cameo model of each involved pantry, we were able to create a single source of truth that future project members can use to understand pantry operation and to implement their own changes with.

God's Bounty:

Coordinated God's Bounty and a neighboring pantry, Shepard Community, sharing a larger truck to be used for shared runs. We also coordinated a contract with 913 Sports to use their transport trucks to pick up larger orders from Midwest Food Bank.

Old Bethel and Partners:

The pantry is partnering with a local church to create onboarding videos for new shoppers. This allows the pantry to continue operations while the shopper learns what they need to register with the pantry. Additionally, the pantry is also partnering with LTC language solutions, a 24/7 service that provides live translators in spoken Haitian Creole. Pairing these two solutions in tandem shall allow the pantry to more efficiently handle the large influx of Haitian Creole community members.