



open**SAP** |

TOUCH IOT WITH SAP LEONARDO PROTOTYPE CHALLENGE

SUBMISSION FOR JUNE 2017 SESSION

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Story

Food waste is an enormous problem costing more than \$165B a year, and accounting for 18% of the waste sent to landfills in CA. Food waste in landfills, in turn, generates methane, a greenhouse gas 25X more impactful than Carbon Dioxide.

Approximately 20% of the wasted food is discarded because it does not meet industry aesthetic standards. A Bay Area non-profit, Imperfect Produce, matches this nutritionally acceptable food with the many Californians who are 'food insecure,' or without access to enough affordable food.

Imperfect Produce purchases produce at local farms and stores the food at one of several distribution centers (DC) across the state. The storage bins have weight, temperature, and humidity sensors. The bins contain only the same kind of produce, collected on the same day. The oldest food is selected first to be delivered to customers from the closest distribution center. Food may also be moved from DC to DC to meet local demand.

Imperfect Produce wants a sensor-based application to allow for the Distribution Center Inventory Manager manage the the stored food: fill orders, check on status and monitor equipment.

Persona



Maija

Logistics Manager

“My mission is eliminating food waste, and feeding people. I like to go to work every day.”

About

- 28 years old, single, dedicated to job
- Constantly assessing current inventory and determining ability to meet sales commitments.
- Primarily works at the Distribution Center, but walks around the Center frequently
- I work with the Chief Operating Officer and Sales Team

Responsibilities

- I am responsible for minimizing food waste at the Distribution Center
- I work with the Trucking Department to fill orders
- I do my job best when I can move around the Distribution Center and visually inspect bins
- I am also responsible for maintaining the equipment in the Distribution Center

Needs

- Insight into the status of orders
- Alerts when food is ready to spoil
- Alerts when equipment is nearing a recommended maintenance period or malfunctioning

Main Goals

- Reduce food waste from current rate of 14% by weight to 7% by weight
- Minimize down-time of equipment by scheduling preventative maintenance. Target is 5% unplanned downtime per year (current is 12%)

Pain Points

- Have to use different systems to see inventory and orders
- Continually reacting to equipment failures instead of managing maintenance -- resulting in spoiled food

Point of View

As A: Logistics Manager

I Need a Way To: View the status of order, and fill that order with existing inventory

So I Can: Select food to be delivered to customers on time with minimum spoilage

As A: Logistics Manager

I Need a Way To: Be alerted if food reaches certain freshness thresholds

So I Can: Prioritize the selection of the food for delivery or discount the food for immediate sale

As A: Logistics Manager

I Need a Way To: Be alerted if equipment is malfunctioning

So I Can: Move affected food to avoid spoiling and waste

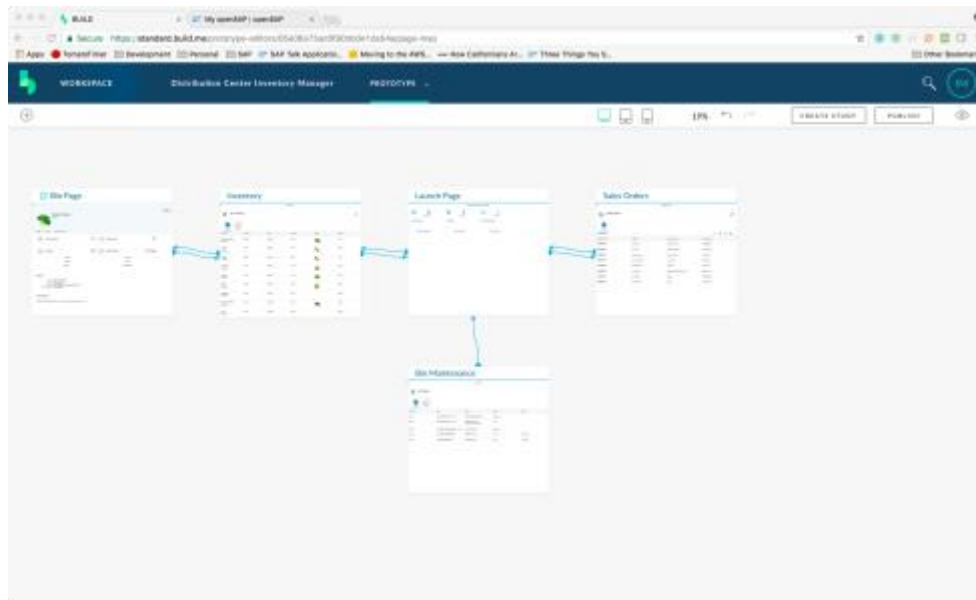
User Experience Journey

ACTIONS	Arrive at office Review (Paper) Maintenance Logs	Walk around Distribution Center Manually inspect bins	Return to desk Review orders	Walk to loading dock Review lading documents	Return to Desk Schedule maintenance	Create report of filled orders
MINDSET	What has gone wrong since yesterday	Is all the food ok? Is any in danger of spoiling	Do I have the inventory to meet all the orders?	Looks like most of the orders can be filled	Almost all of our equipment is in good shape I need to hire additional maintenance personnel	We kept a lot of food out of the landfill today
FEELING	😊					
	☹️					
TOUCH POINTS	Paper Maintenance Logs	Paper information cards on bins	Paper Order summary Paper Inventory report	Paper bills of lading	Paper Maintenance Logs	Email (to Chief Operating Officer)

Prototype

The Build prototype can be found at this link: [https://standard.build.me/prototype-editors/api/public/v1/snapshots/05e08a75ac6f90bb0e1da54a/artifacts/latest/index.html#/bin_page/InventorySet\('0002364'\)](https://standard.build.me/prototype-editors/api/public/v1/snapshots/05e08a75ac6f90bb0e1da54a/artifacts/latest/index.html#/bin_page/InventorySet('0002364'))

The pages used in the prototype are:



And the Data Model is:

