

# AgileFood: Facilitating Adaptive Food Donation to Address Hunger & Reduce Waste

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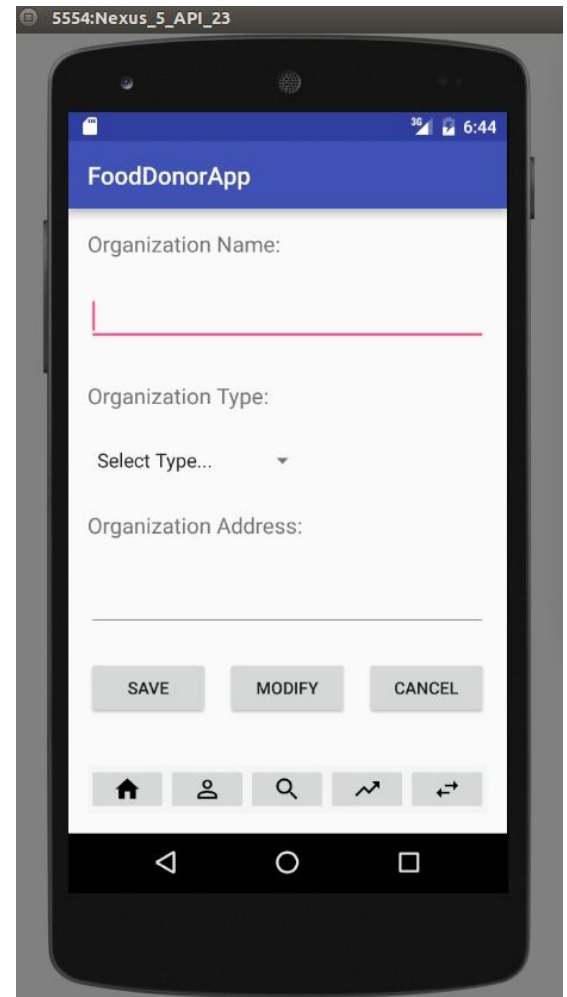
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# The need for food donations

A lot of food is wasted in developed countries (Hall 2009)

- Focus: Retail level (10% of food loss)

About 15% of Americans are in poverty (USDA 2016)

Negative impacts:

- Individual health (Vozaris 2003)
- The environment
- The economy (Feeding America 2016)

# Why would grocery stores want to donate food?

Incentives (Ariely 2009):

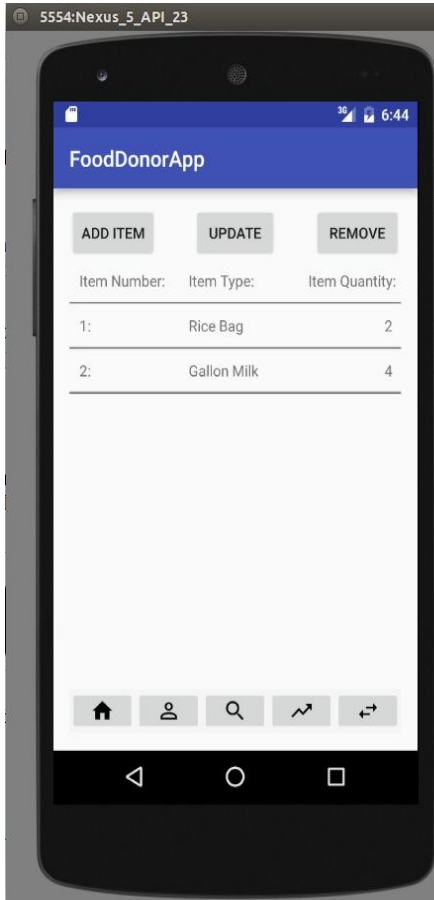
- *Extrinsic motivation*: bills and laws (USDA)
  - providing liability protection and tax incentive to donors in the US
  - fines if supermarkets throw edible food out in France
- *Image motivation*: how grocery stores are seen by customers
- Image motivation can potentially turn into extrinsic motivation is more customers are gained

# State-Of-The-Art Solutions and Challenges

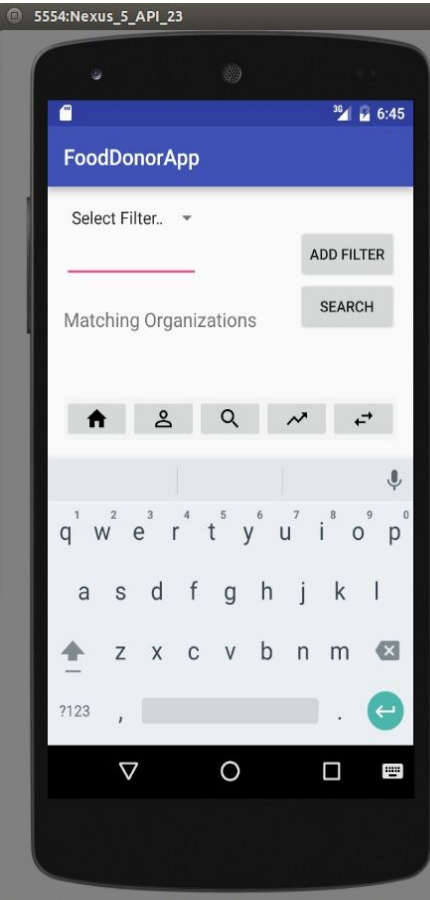
- *FoodRunners*: Vendors enter excess food in system, and volunteers transport it to places that need it.
- *Food Cowboy* and *Copia*: Company receives food donations and distributes it to charities.
- Challenges:
  - Lack of direct, and instantaneous communication between grocery stores and charities for optimal matching
    - Dependence on third parties to make the transfer
    - Scalability issues
  - Transfer of responsibility to not waste food from supermarkets to charities, which need to provide the conditions to properly store it.

# AgileFood: Facilitating Redirection of Food

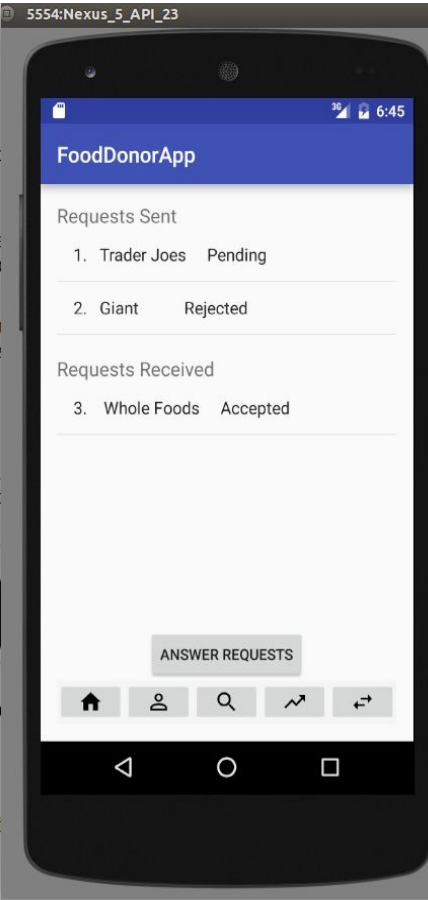
- A mobile app, that based on specific needs and location, helps charities and grocery stores find each-other
- *Purpose:* to help schedule a food exchange between a charity and a grocery store only for the food items and amount that the charity needs and the store has available
- Two types of user profiles: grocery stores and charities with very similar functionality



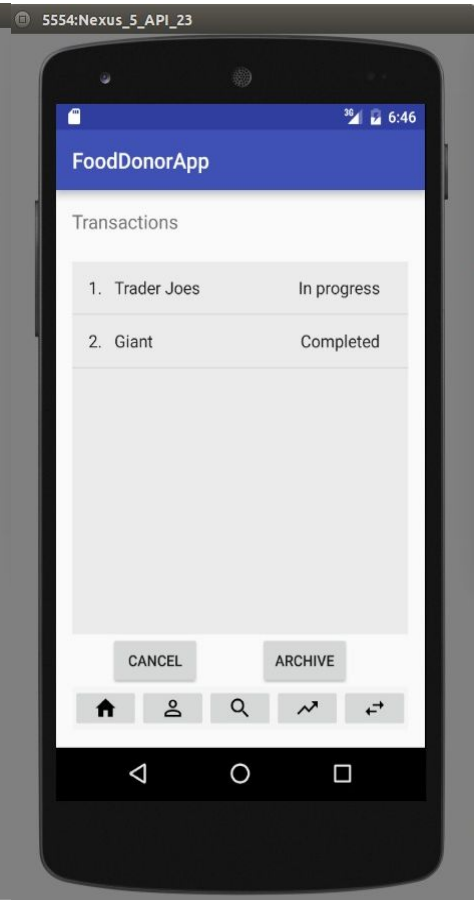
Home Screen



Search Screen



Requests Screen



Transactions Screen

# Future Work

We need to explore:

- Design and market considerations that lead to real-world applicability
  - It needs to be worth it to grocery stores
- Implementation of transaction record-keeping
- Optimal matching algorithm providing pairings between charities and grocery stores



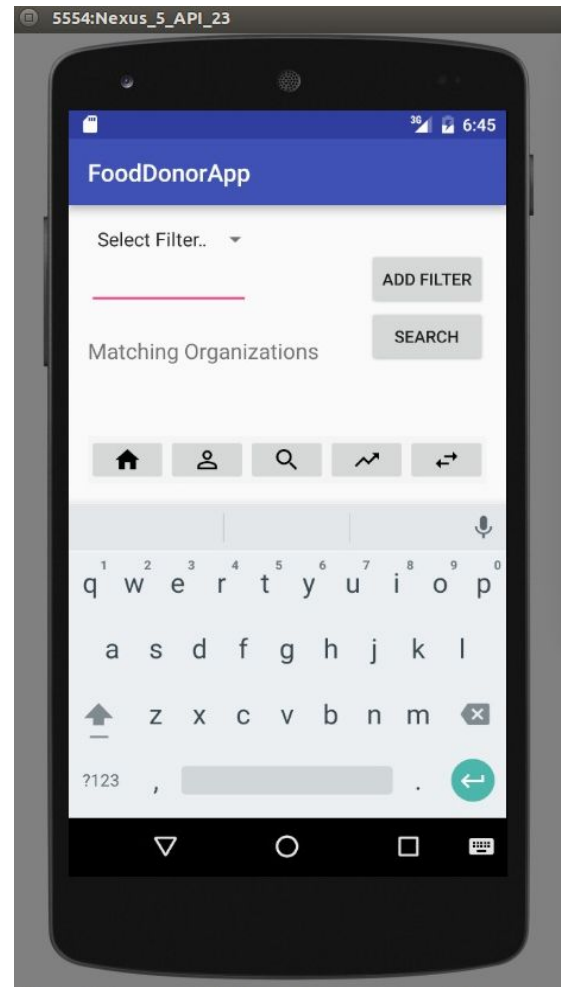
# Thank You!!

## AgileFood: Facilitating Adaptive Food Donation to Address Hunger & Reduce Waste

- *Goal:* to help schedule a food exchange between a charity and a grocery store, for the food items and amount that the grocery store has available, and the charity needs.
- The user is able to:
  - Enter items
  - Search relevant grocery stores/charities
  - Send/Answer to requests
  - Schedule a transaction

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# References

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