**Myles:**

* Grocery Store Pathing App on Smartphone
* Turn by turn directions in the store
* Stores with only professional shoppers - submit a list and get a bag of groceries when you walk in/delivered to your car (this exists at Target/Publix/Walmart)
* Server-hosted shopping list with multiple users
* Item substitution recommendations (if out of stock)

**Dajiba:**

focus more on shopping list creation help

1. auditory
2. scan the barcode
3. import from old list
4. analytics based on old shopping pattern
5. Web api to get the location
6. Double screen layout for professional shoppers who wants to multiple customer
7. Aisle view in the navigation maps
8. Delete navigation data after exiting store
9. Item availability check
10. History of old shopping list
11. Export shopping list and send it to other user

**Abhijeet:**

* API gateway to get store and product information
* Surface to store the layout and spit the hard copy of map in combination with Cellphone to store the map.
* Intel Clarity Glasses integration with API Gateway
* Cell phone app integration with API Gateway
* Touch and Transfer
* Product comparison
* Product availability in the nearest store branches
* Pricing, discount and events pricing options
* Pay while you shop
* Destroy the store map once the shopping activity is complete
* Voice enable features to add the shopping list
* Find out how busy the store is
* In queue for customer service/product return

**Daniel:**

* Core problem: User needs an efficient/quick way to shop on any given shopping trip.
  + What incentives could people get to use this type of program? Motivations?
  + Aim for simple usage of app or invisible interfaces.
* Smartphone app with incentives for using
  + Monetary; coupons; other incentives?
  + App runs while user is shopping, so little interaction is req’d. Maps out store while running.
  + Requires no other hardware than phone.
* Physical units inside the store
  + Have to deal with hardware costs and having to pay store owners rent for floor space to house the units themselves.
  + Theft and security issues to resolve.
  + Would get users that don’t have a smartphone, but would these users even use this device in the first place?
* Auto-load coupons/store incentives into the app.
  + Compare with competitor pricing to find lowest price for whatever item you’re shopping for.

**Group Brainstorming:**

1. Smartphone App
   1. Incentives/Discounts/Convenience
      1. Automatically find and load coupons
      2. Compare competitors prices
      3. Autoload membership card
      4. Pay by app
      5. How busy is the store?
      6. Enter the customer service queue (app-based take a number)
   2. Support a wide range of tech literacy
   3. Locate Items Automatically
      1. Web-API Based
         1. Privacy is a concern for stores
         2. Using an API gateway limits the information that the store shares
      2. Turn by turn directions for the aisles
      3. “Aisle View”
      4. Item availability check
         1. Item sub recommendations showing in app for item OOS
         2. Check availability in nearby stores
   4. Shopping List
      1. Shopping list history (frequently purchased items)
      2. Server-hosted shopping list
      3. Barcode scanner to add an item to the list
      4. Voice-based additions (“Hey Shopper, add Kit-Kats to my list”)
      5. Analytics to add items to shopping lists based on shopping habits (This user frequently purchases milk, but hasn’t had any new milk in 10 days, add milk to the list)
      6. “Touch and Transfer” - divide the shopping list with a shopping companion
         1. Split the list evenly by price (roommates)
         2. Split the list by side of the store (family, paying together)
2. Alternative Devices:
   1. Smartwatches
      1. Interface shows next item
      2. Twist to select next item
   2. Google Glass/Intel Clarity Glasses
      1. Heads up display with shopping list
3. Physical Units - Surface/Kiosk
   1. User’s cellphone contains the list, but the surface shows the store map
      1. Map printed on a piece of paper
      2. Map displayed on tablet that’s attached to the shopping cart
4. Store with just professional shoppers
   1. Store-wide automatic vending machine

**Design Alternatives:**

1. Rules for individual brainstorming
   1. The individual brainstorming plan will outline the steps we intend to take. Each group member will follow the 5 tips outlined in the lectures:
      1. Write down the core problem
      2. Add constraints to focus on the core problem
      3. Aim for around 20 notes and ideas
      4. Take frequent breaks
      5. Use the divide and conquer method to narrow down ideas for our different interfaces
2. A plan for group brainstorming
   1. Each group member reviews his ideas
   2. Group adds favored ideas (virtually all of them) to a combined list, excluding duplicates
   3. If a new idea is sparked, add it to the list
   4. Reorganize the new group list for brevity and readability
3. Heuristics for selecting from these alternatives
   1. Review the needs of our three user groups
   2. Select 3 sets of ideas that satisfy the needs of the shoppers while maintaining the support of the store managers