Project Proposal

- **Group Information**
  - Group Number: 1
  - Project Title: “CartShare”
  - Group Members
    - Benjamin Chrysler
    - Luke McDuff
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- **Project Goals and Objectives**
  - **Motivation**
    - Have you ever forgotten something the last time you went to the store? Are you in need of just a couple items to make dinner tonight? Ever wish that you could let your friends or family know what to bring back to your house when they stop by the store without sending a string of texts back and forth? We want to enable people to see when their friends and family, who live nearby, are going to the store so we can request that they pick us up something while they are shopping. This will help solve the problem of needing not enough items from the store to justify a trip to the store, but if your friends or family members are going to the store, they can pick you up those items for you and be paid for the items immediately. *CartShare* is here to make your life a bit easier, saving you time, and keeping you from not having that special grocery item tonight.
  - **Significance/Uniqueness**
    - When examining the market for similar applications, our solutions combines the functionality of a number of different applications. The use of real-time lists, grocery sharing (or having someone pick up groceries for you) have been implemented, but our app takes a slightly different approach. Instead of paying for delivery of groceries from a professional courier, our solution requests the help of friends and family members who will perform the service for no fee. Rather, “couriers” (friends/family in this case) will live nearby and already be planning to attend the store. When a user is planning to visit the store, they simply update their status and their friends are notified. This solution will be especially useful for users who live in urban living complexes, such as apartments or dorms, where they are close to their friends or neighbors. Also, our solution targets the user who doesn’t need an entire weeks’ worth of groceries delivered, but rather just a few items. This solution will not be focused on building a social network, rather working from connections already made in person (user groups will already be friends, family or neighbors in real life).
  - **Objectives**
    - The objective is to create a mobile/web application where one can organize a small individual grocery list, and save a trip to store by sharing the list with one of his friend/family member who they know is going to the store. Another objective will be to establish a secure environment for users. Family “groups” will be added via word of mouth to help with security of food items. Payments will be secured using established API. Another objective will be for the app to function

close to real time, providing updates and notifications when new information becomes available.

- **System Features**
  - Ability to see what stores your friends are going to
  - Ability to request groceries to be purchased by sending a list to your friend
  - Deadlines and store Estimated Times of Arrival, with alerts and push notifications
  - Shared and synced group lists
  - Grocery categories/tags
  - Real time list updates
  - Add friends and family
  - User accounts
  - Payment (PayPal) integration

- **Related Work**
  - *UberEATS* is an application that provides delivery of food from restaurants to customers for lunch or dinner. Users can select from a predetermined list of meal options and have them delivered for a flat rate. The delivery driver or "messenger" is an employees of Uber and takes "for hire" orders based on their current location to the restaurant. It is currently located in Chicago.

  - *OutofMilk* is the "Number 1" shopping list app available in the Android/iOS app stores. What is unique about this app is that users are able to share their lists with family members and friends. Users are also able to sync their lists so when a friend updates a shared list it is reflected on all the lists.

  - *instacart* is a company providing grocery delivery services. Users can use the mobile app or website to place grocery orders which are then picked up by couriers and delivered to your home in one hour or less. Since *instacart* relies on the use of paid couriers their availability is limited to around 20 cities nationwide.

  - *Amazon Fresh* is the grocery division of Amazon offering same day delivery of groceries. Users can select products from the online store via web or mobile. The service costs $7.99 per delivery or $299 per year. *Amazon Fresh* services are currently available in Seattle, California, and New York City.

- **Backup Project**
  - The backup idea is a Primary Care Communication Application. The motivation for creating the app is to improve contact between patients (in particular, low income demographic) and their clinic in which they attend. The main functionalities of the app would include:
    - Ability to fill out forms prior to clinic appointment, this will improve wait times in busy inner city clinics
    - Ability to fill out exit satisfaction survey
    - Receive electronic lab orders for blood work etc… which could be taken to lab and scanned
    - Appoint reminder push notifications, with the ability to re-schedule or cancel an appointment
    - For at risk patients who monitor their blood pressure and blood sugar daily, an in app log that syncs with the clinic database would be available
    - A list of medications that the patient takes that is currently on record at the clinic, this will allow the patient to compare and make sure the clinic is aware of they may have stopped taking

        - A map that will show from whatever location opened, the directions to the clinic, this would benefits patients who may require rides from friends or family members unfamiliar with the location of the clinic
    - While some patient-to-clinic apps exist, they are typically patient portals which can contain an overwhelmingly large amount of data and features. By streamlining a few key important services we can help increase patient health.
- **Bibliography**
    - https://ubereats.com/eats/chi/
    - https://www.outofmilk.com/
    - https://www.instacart.com/
    - https://fresh.amazon.com/
    - https://developer.paypal.com/docs/integration/mobile/android-integration-guide/