Prototype Summary

This term we will be using elements of the Agile Approach and Spiral Method for the lifecycle development of your project. For each prototype you will complete a targeted cycle of analysis, design, and implementation, meaning that you will reach completion of full CRUD operations on key aspects of functionality for your end-product in stages. In this document, we share with you the broad vision of how your targets will be broken up over the course of 3 prototype sessions, focusing in detail on the target deliverables you have for Prototype 1.

Broad Stroke Vision of GROW Prototype Evolution

- Prototype 1:
  - Manage customer information
  - Complete the customer household data collection and storage
  - Reports based on client income, mapping.
- Prototype 2:
  - Demonstrate maturation of Prototype 1 functionality
  - Point of sale system
    - Tracking the items sold and prices
    - Linked sale to the household number
  - Reports based on this data.
- Prototype 3:
  - Demonstrate maturation of Prototype 1 and 2 functionalities
  - Complete the email/push notification system
  - Include employee login process
- Final Presentation
  - Prototype Targets 1 – 3 completely debugged and finessed!

Prototype 1 Plan in Detail

Remember, the interface must be simplified for use. The volunteers are not technically savvy and do not have your level of understanding. Using WCAG and other design concepts (reducing cognitive load, etc.) will be paramount to a successful application.

You will need to map out your entire data model. Looking at the requirements above, the provided information from the client, and other sources, you will create a well-designed data model. It must show all fields, tables, and relationships. You will need to think ahead. Plan lookup tables. You will be working with a POS system, so we know which household purchased which items and how much money was spent; employee access and login credentials; and an email/push notification system. These will not be implemented at this stage, but the instructors would like to see your logic first before you build the entirety of the database. Pay attention to the necessary reports. Some data will be collected automatically (hidden form the user) in order to make the reports possible (dates and times of creation/editing).

We start a very foundational level on the functional side of the prototype with creating a data collection and management interface with menu access. We will start off in a straight-forward manor with collecting basic household information. We will assume that when a household is created there is at

least one person's data to collect. Additional people can be added at the same time the original household is created or perhaps added later if information is not initially available (new baby, adoptions, uncle moves in, etc.). Don't forget to provide the ability to edit any information that is collected and a quick review system (including filtering, sorting, paging, etc.).

You will build the necessary database tables, etc. for this portion of the project including at least 10 complete sets of sample data (HINT: Use your interface to enter at least 5 sets of data. This will give you an idea of how well your interface works.)

You will also create some simple reports based on the data that is collected. Though there are quite a few reports that could be created form this data, there are a few that would need to be created though you are encouraged to create others that you can imagine. Some reports include:

- Each year, a household must be re-assessed. A report that shows which houses are up for reassessment would be necessary.
- Weekly reports:
    - New household additions.
    - Household with changes.
    - Households that have been removed.
    - Others you may think of.

The client would also like a mapping system. This can also be added at this point.

Prototype 1 Grading

You have 2 graded sessions for Prototype 1. Your targets will be broken down as follows:

- **Week of Jan 30th : Faculty progress review meeting (10%)**
    - Review your database design
    - Demonstrate a working data collection and survey system along with a menu system to match
    - Showcase various screens to allow data management (edit, sort, etc.)

- **Week of Feb 7th: Client Presentation (20%)**
    - Demonstrate a working data collection application with at least 10 sets of complete data included. Your demonstration will include entering a new client, editing various parts, etc.
    - Provide the instructors with a complete data model for review (you do not need to review this with the client).

Azure Hosting Requirements for the Prototype

We ask that all teams have their completed prototype work for faculty and client review meetings uploaded and hosted in Azure the day before your faculty/client meeting. Each team will have their Azure Hoster email faculty and/or the client with their team's Azure link by noon the day before the presentation. This will enable your reviewers to look through your team's work prior to the presentation.

We require all teams to use the app that was hosted in Azure for the Sunday deadline for the review meeting or client presentation. Once the presentation has been conducted, if you have additional work to showcase, you can factor that into your presentation plan at the end.

Faculty Progress Review Meeting Rubric (15 Marks)

- The relational database design is logically correct and matches client requirements (5 marks)
- Your team has a fully functioning data collection/management & menu system in place at a simple level (5 marks)
- You conducted the meeting in a professional and methodical fashion (3 marks)
- Your team demonstrated work-in-progress for elements of client presentation targets (2 marks)

Client Meeting Rubric (15 Marks)

- Target functionality for all Prototype 1 elements, including the Faculty Review Items, are fully working and are in an evolved state from the last meeting (12 marks)
- You conducted the meeting in a professional and methodical fashion (3 marks)