**Milestone 2 - Team 4**

1. **System Overview - (Bryan)**

**Product Description:** Application which monitors a store’s capacity real-time and has an online ordering/pickup feature.

**B. Technical Requirements**

This section should describe the operational parameters of the software product. It should contain information (if applicable to the product) such as:

* 1. i. Functional requirements (this part could be done with use cases)
  2. ii. Nonfunctional requirements such as performance and other constraints
  3. iii. User-interface specification
  4. iv. User task flow
  5. v. Input/output and other data specifications
  6. vi. Interface specifications to other systems

**C. Acceptance Criteria/Interaction Scenarios**

This section should define the functionality the software must implement. It can include interaction scenarios. The scenarios consist of the user inputs and system responses. The low-fidelity prototypes are included. The type of questions that should be asked include:

* 1. i. How-to: Questions ask how some action is performed.
  2. ii. Who: Questions ask who is responsible for a task.
  3. iii. What-kind-of: Questions request further refinements of some concepts.
  4. iv. When: Questions ask about timing constraints.
  5. v. Relationship: Questions ask how one requirement is related to another.
  6. vi. What-if: Questions ask about cases in which an action could go wrong
     1. or its preconditions.
  7. vii. Follow-on: Questions stem from other pending questions.

**D. Validation/Verification—-Santhoshini**

This section will describe requirements for the system validation/verification. The requirements and scenarios should help in this process. Validation will determine whether the software satisfies the customer needs as were specified in the requirements and the scenarios. Verification will determine if the software is functionally correct.

**E. Requirements Considerations - (Bryan)**

**Assumption made about the software:**

* The mobile device has cellular or Wifi connectivity.
* So that we do not have to monitor locations of users, we would ask stores to provide a mechanism to know incoming / outcoming. (simple turn-style system would work)
* It will be designed and published in the English Language (future implementations can be localized)
* The stores have a database of products already setup that we can tap into. For the purposes of this app we will create some example product listings ourselves.
* The application will not make future capacity level predictions in version 1 (hopefully to be released in a later version).
* Version 1 UI will be basic with the goals mainly to get the core functionality in place.

**End users: Describe each type of user:**

* **Store Managers:** 
  + **Who are they:** Owners of the store in charge of the total business operations and meeting local regulations.
* **Private Citizens:**
  + **Who are they:** Visitors and purchasers of the store.

**Existing systems:**

* Many modern day grocery stores have applications that allow ordering from home and going to pickup. There was a spike in these types of features during the pandemic.
* We will do some market research of these systems to capture the high and low points.

**Environment:**

* The application will run on Android and iOS mobile devices.
* The application should also be web-based to be accessed via browser.

**Limitations: The system will NOT do the following: (out of scope)**

* The app will not track promotions or discounts unless the store manager updates their database.
* The app will not provide payment services native within the app. We will use an outside third party for payment processing.
* The system will not be legally liable for the information published in the app and warning messages will be displayed that the information is for reference only.
* The app will not predict future levels of capacity so that a user can plan a trip in advance. (However this is functionality we would like to add in version 2 by monitoring the statistical data and making predictions.)

**Rationale: Describes how the requirements meet or exceed the needs of the customer.**

* Currently the store has no mechanism for a customer to purchase online and pickup. This will provide HUGE value to the customer avoiding evening having to go into the store at all.
* If a user must enter the store, at the current time there is no way to know the capacity level inside the store until they are already inside. This application will provide reference information so that the user can make an informed choice of when to go to the store.

**F. Other Information**

Any pertinent information can be added to this document.

**Review of progress: (Bryan)**

* **Review of progress since the previous milestone.**
  + Since Milestone 1 we have continued to mature our understanding of how we should be setting requirements. This has helped us as a team refine our goals/objectives for this program and they are reflected in the information above.
  + Our program plan was updated as we learned how we are going to be sharing responsibilities.
  + Github was implemented near the end of Milestone 1 (we were using google drive) and now we are continuing to use it. To aid in documentation update real time we are still using Google Drive but are uploading to Github and the end of a days work. Github is not exactly the best when documentation is being treated as a live document and multiple people are making edits (however it does work well for code).
* **Revised schedule and plan for the remainder of the project.**
  + Our plan has basically stayed the same but we brought focus to the topics that each of us are focusing on. As we learn in lecture we are applying the concepts to our program plan.