**Introduction:**

The project we are building is an inventory management system for a small business that sells air cleaners. The project should help automate parts of the inventory process such as adding and subtracting stock and possibly warning when stock gets too low. Also, keep track of customer information and orders. Be able to query customers, inventory, or orders and somehow create UPCs to scan for faster inventory process. May use API to help generate them.

**Project Organization:**

Paul Stybert - Lead Programmer, Project Lead

Liz Hall - Designer, Programmer

**Risk Analysis:**

\*To be done in Module 4\*

**Hardware and Software Requirements:**

* MYSQL database
* C#
* Visual Studio IDE
* Scanner

**Work Breakdown:**

1Documentation and planning

UI Design

Database Design

Database creation

Planning functionality and classes

Design structure

DAL(Data Access Layer)

Code

Test

Deploy

**Process Flow Diagrams:**

See process flow diagram.vsdx file

**Project Schedule:**

* Database Design must be done before creation- finished april 7th 2020
* Planning functionality and classes must be done before Designing structure - finish by April 11th 2020
* Design Structure- finish by April 14th
* DAL(Data Access Layer)- finish by April 20th 2020
* Code - finish by May 1st 2020 can be done in tandem with DAL
* Test finish by May 5th 2020 can be done during coding
* Deploy by May 9th 2020

**Monitoring and Reporting Mechanisms:**

Github will be used for monitoring changes and reporting them as we continue development. We will also be using Collaborations such as this one to monitor progress and Report any difficulties we run into.

**Appendix:**

1. Documentation and planning- This is the planning documentation we have already created and any new documentation that will be generated. This is ongoing, but initially should take 2-3 days.
2. UI Design- This is the visual design of the application. Liz has done most of this already. Changes may be required and will be documented. This should take 3-5 days.
3. Database Design- This includes brainstorming documentation and an ERD. This has to be finished before we create it. This should take 3-5 days.
4. Database creation- This includes development of SQL code for running on MYSQL. The ERD and brainstorming documentation were used to create the code. It will be implemented in Xampp initially for testing purposes and then implemented in an AWS test RDD.This should take 1-2 days.
5. Planning functionality and classes- This will define what the app needs to do and what classes we will use to accomplish these tasks. This document is in collaboration and is a work in progress as of April 9th 2020. Must be completed before Design Structure can be created. This should be take 3-5 days
6. Design structure- This is the structural design of the program. It will define file structure and libraries used and where they will be used. It will define the software interfaces and where they will be used as well. This must be finished before DAL creation. This should take 5-7 days
7. DAL- This is the Data Access Layer. It will be created based on structural requirements and defines how the program accesses and interacts with the database. It can be developed in tandem with coding the application. This should take 3-5 days.
8. Code- Using the functionality and design structure the application will be coded in C# using Visual Studio. This should 1-2 weeks
9. Test- Test data will be generated to use in functionality tests and if a reasonable testing suite can be found that is free we will use that as well.this should take 3-5 days
10. Deploy- Deploy database to AWS and create an msi for the program to install on a computer and connect to the database. This should take 1-2 days.