

**\*Disclaimer: The situation at the farm itself is currently a WIP, this proposal is subject to change at the farmers discretion depending on what they have us do in the future\***

## **Executive Summary**

As of right now there is no sure proposal idea since the farm themselves have not decided what we collectively as students and individually as groups can do for them, we will be in contact with the 3 employees of the farm in terms of what they can have us do later on, but for right now, an idea that was pitched to us but not 100% confirmed by the farm employee we spoke to was to essentially create a simple program that can keep track of their numbers and collectively make it easier for them to do so.

## **Project Background (NOT FINALIZED)**

The farm currently has no electricity running through it, so as of right now, there is a limited amount of resources they have, although they are in development in terms of getting those resources, the suggestion we got was we can essentially number crunch for them and compile their data and have a program that just keeps track of their operations and the numbers that come with those operations such as how much stock they have for certain produce and how much was given away, the people coming in and out of the farm on a visit, etc. We would create a simple program using data structures in order to help them achieve that goal, to have something to keep track of their numbers and potentially even some other data they need. All of this is subject to change at the discretion of the farm employees and what they decide is helpful for them. Potential development could take place on the farm as they are expanding exponentially which can also potentially change what they need.

## **Solution (NOT FINALIZED)**

We would potentially utilize lists and queues as some of our methods to help solve these issues with what they have in stock in terms of crops and the visitors to the farm that are coming in and out. We would try to communicate often with the farm employees to try to figure out what they need on a consistent basis and try to alter and mold our program around some potentially more specific topics and ideas rather than something that is more vague and unrefined as it is right now since they also have no idea what they specifically need according to our visit to the farm. The specific steps to the solution to the problem will be finalized later when the problem is presented to us but for now the base is that we will be using some data structure concepts to try to help the farm try to collect and store data in an efficient and easily accessible way.

## **Deliverables and Goals**

The items that we will deliver will vary but at the very base it is a program that utilizes data structure in order to help Lopez Urban Farm in some way in their operations and whatever that is is up to their discretion. Our program will be performing a task for them that is most likely too tedious for them to do by hand without a computer program as they are currently growing exponentially in terms of their operations and with that increase in size. The farm will need programs that help them with some of work that would otherwise take an unnecessarily long time and that is what we will be delivering to them, a way to cut down on wasted time to focus more on development and other more important things in their operations. Our goal is by the end of the project period to give them a program that can be put into consideration along with the other programs coming from the 2 classes to be put to use so that they can further the development on the farm at an even faster rate.

## **Required Resources**

The most important resource that we need is time, there is not much of a budget per se in terms of on our side as the students creating the program, but there is definitely a budget on the side of the farm and that would need to be put into consideration, but most importantly as stated at the beginning we need ample time to be able to figure out, communicate with and solve the issues with the farm, as they are also in the beginning stages of their rapid development.

## **Conclusion**

Overall the plan is to first figure out what it is that we will be doing, then we will plan out our course of action to try to create a program that will solve that problem, while also receiving input in terms of the direction of the program with the farm, while accounting for what they need at the moment and what they could potentially need in the future based off of their situation as they are rapidly changing by the week. At the very base of this project, we will be delivering a tool to the farm that will help them with some of the problems they encounter at the farm without tech experience and the resources necessary to solve those problems.