

## Progress Report 2

### Methods:

Over the past month, I have made consistent progress. During my first month, I took a lot of time to familiarize myself with all the platforms, servers, and programs being used. It took several weeks to learn how to navigate these platforms and get them working on my computer. This past month, I have been able to make several contributions to furthering the progress of the project. Since the beginning, I have kept track of the most important dates, especially the dates for our demos. I started this month, finishing up several functions that needed to be implemented in our Python program handling the registration and authentication of users trying to utilize the software. My team lead has created a list of functions that still need to be implemented, so I spent the first half of the month on these. For example, I set up a function to check if a name already exists in the data for an agent trying to be registered by an authenticated user. In the latter half of the month, I started working on testing the latency of this program. I started off by setting up several time stamps throughout the code, specifically surrounding the functions to test how long it's taking the function to run. To measure this time, I subtracted the ending time from the starting time. I took note of all of these times, for each process. To get the most accurate data, I ran the code a few times with different examples of users and agents. I took the averages of these numbers and created a table that was easy to read and follow and accurately displayed all of the times.

### Progress:

One key part of this project is testing the latency of our programs. Without good latency, our program may not be useful. So, the tests I ran on the latency of our program played a key role in heading towards our goal. Based on my findings and observations, our times aren't very off, but they also aren't ideal. I will be writing a report during this week on the analysis of the times we got, essentially explaining why our times may not have been ideal. I will also include how we can reduce these times, if possible. I think our results for running the latency tests for the first time were as expected. Since the focus has been getting the program to successfully run, we haven't yet focused on how to make it run the quickest way possible so that the user doesn't notice any delays. This is something I will continue to work on and analyze.

### Challenges:

I would say the biggest challenge I faced this month was being able to test my code on my personal computer when not in the lab. I ran into a few issues with the server and running the database. However, this issue has been resolved. I was able to successfully do all of my tests from anywhere, not just in the lab. I solved this problem by getting support from my team lead and trial and error. I now understand how to run the server and access the elements in the database properly. Going through this also allowed me to understand the platforms we work with

much better and I'm confident that I will be able to handle challenges that may come up in the future.

**Revised Objectives:**

My goal is to continue to stay consistent with my progress and I am confident of this. I will continue to maintain good communication with my group as that has helped me make lots of progress. Effective collaboration has allowed us to keep track of who is doing what and make sure that everything is on track to be done. This week is a very important week for us since our demo is on April 21st. We will be working together extensively to get everything done and make sure we present our best work. These objectives haven't drastically changed since the beginning. We have stayed very focused on the date April 21st since the beginning and therefore the objective has remained mostly the same. Looking forward, I will be testing our registration and authentication program on the lab computers next week and finishing my report on the latency. For this coming week, we are very focused on working on the demonstration case, and therefore, my goal is to help as much as possible to make sure things are working to the best of our ability. Lastly, looking out over the next month, I will continue to implement functions that are waiting to be added and implement my ideas on how to improve the latency of the program. I'm excited to see the outcome and look forward to dedicating sufficient time to producing the best outcome for this project!