#### Weekly Scrum Report for Deliverable 2

Link to the presentation with the client: Link

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■ Deliverable 2

# Name: Navya Jain

# 1. What have I worked on?

This week, I worked on preparing Deliverable 2 .

I worked on the following hypothesis: *Participants' age will negatively correlate with financial and material stability (the last two questions on the Flourishing Scale).* 

The flourishing scale was filled by participants weekly on Friday. The data is recorded in the 'FridayAM.csv' file. The ages were taken from the 'Demographic.csv' file. After preprocessing the data by removing irrelevant columns and filling the zero values with the averages, I also converted a copy of my data to have values corresponding to days, not every timestamp. Then, using the Pearson correlation coefficient, the correlation between Age and Living Expenses (flourishing scale) was -0.096 whereas the correlation between Age and Food-housing expenses (flourishing scale) was -0.194. Both the correlations were negative, hence the hypothesis was accepted.

I also worked on combining and running an initial exploratory analysis of the Garmin data. My first step was to run a preliminary analysis on the Garmin data and understand the different data values it had. There are over 65 files corresponding to each participant in the study containing timestamps and different values such as calorie intake, steps, etc. I cleaned the data to extract calories and steps from the data and correlated it with the physical health metric from the flourishing scale.

#### 2. What will I be working on next?

As requested by the client, I will be creating models for the data to fit the Garmin data and to find key insights from it. It would first require me to preprocess the data and mostly combine it, followed by merging the survey data with it according to the timestamps. Then I will create a model to find relationships between them.

#### 3. Have I run into any issues? Do I need help?

No, everything is good so far. I am making progress on my previously mentioned issues and believe can preprocess the data effectively.

# 4. Team Lead: Have I talked to the client recently? When are we meeting with them next?

Yes, I am having regular weekly meetings with the client. I talked to her this week. We have another meeting scheduled for the next week.

#### Name: Shang Lyu

#### 1. What have I worked on?

I mainly focus on deliverable 2 this week. Specifically, I am working on hypotheses c and e, as well as a quick demo for the Garmin data. Hypothesis C was concluded to be true and I found the different columns in the Garmin data along with a time-series analysis of the timestamps. This is all mentioned in more detail in the document for deliverable 2.

# 2. What will I be working on next?

I will be working on combining the Garmin data with the analysis. Also, I decide to use more complex methods such as supervised and unsupervised learning on the current datasets.

#### 3. Have I run into any issues? Do I need help?

Everything seems good so far.

#### Name: Dhun Jitendrakumar Jayswal

#### 1. What have I worked on?

This week I worked on solving Hypothesis B and D. Along with this I also worked on Garmin data refinement. I first preprocessed the data for both hypotheses and found the required correlation. The results are documented in the deliverable 2 files and the presentation was given to the client.

#### 2. What will I be working on next?

I will be further working on the Garmin data. I aim to do so by preprocessing it and combining the files together.

#### 3. Have I run into any issues? Do I need help?

Not yet.

#### Name: Jeya Varshini Bharath

#### 1. What have I worked on?

This week I worked on Deliverable 2 specifically on Hypothesis B and answering the Key questions. I wrote some code for the Hypothesis B and D. I also started working with the Garmin Data this week.

#### 2. What will I be working on next?

I will be working on combining the Garmin data and try to come up with some supervised learning methods to use on the data.

# **3.** Have I run into any issues? Do I need help? I haven't run into any problems yet.