Define Story Points to be in the range [0, 10], with 0 indicating a functionality that can be implemented without significant time consumption, and 10 indicating a functionality that will take around 20 working hours to implement.

**User Profile**

US 04.01.01 & US 04.02.01 & US 04.03.01: Story Points = 2, Risk = Low

A user profile management system is to be implemented together with a UI to interface it. A user can create/edit its profile, as well as retrieving other users’ profile given their username. Each profile binds to the user’s username, and contains the user’s contact info.

**Experiment**

US 01.01.01 & US 01.02.01 & US 01.03.01: Story Points = 2, Risk = High

An experiments database is to be implemented with a front-end UI to allow the user to create and delete experiments it owns. A recorded experiment needs to contain the following fields: a description, a region, and a minimum # of trails. The experiment can be ended by user, which marks it closed in DB and publish the results publicly.

US 01.04.01 & US 01.05.01 & US 01.08.01: Story Points = 2, Risk = Medium

Any user can subscribe to a created experiment to participate and become an experimenter for that experiment. Any user can execute trials and record them into the experiments it participates. The owner of an experiment can ignore certain experiment results (trials) from experimenters.

US 01.09.01 & US 01.06.01 & US 01.07.01: Story Points = 1, Risk = Low

A UI for displaying experiment results is to be implemented. The UI should have the option to display the statistics including quartiles, median, mean, and stdev for a selected trial. The UI also has the option to generate a histograms of trail results, as well as a plot of the trial results over time.

**Searching**

US 05.01.01 & US 05.02.01: Story Points = 1, Risk = Low

A search function is to be implemented inside the experiments database. Any user can provide a series of keywords to search for experiments. A UI is to be created to show the search result which includes a list of matching experiments showing each experiment’s description, owner username, and status.

**Questions**

US 02.01.01 & US 02.02.01 & US 02.03.01: Story Points = 1, Risk = Medium

A question/reply system is to be implemented to allow an experimenter to ask question about the experiment. The owner and experimenters are provided with a list of questions regarding the selected experiment, and they can choose a question to view its replies and post a reply.

**Locations**

US 06.01.01 & US 06.02.01 & US 06.03.01 & US 06.04.01: Story Points = 2, Risk = Low

Experiments in the experiments database should have the options to enforce the requirement of a geo-location. With this requirement enabled, the experimenters will have to provided geo-location to the experiment, in which case they will be warned before doing so.

The experimenters will be provided with a map UI that can guide them to add the geo-location. Any user has the option to view a map of the locations of the geo-location-enabled experiment.

**QR Codes**

US 03.01.01 & US 03.02.01 & US 03.03.01

A QR code generation/recognition function is to be implemented. Experimenters can generate QR codes for a trial in an experiment. The QR code can indicate success, failure, or increments, and change the corresponding components of the trial accordingly, for easier recording.

The experimenter can also generate bar code which contains the result for a trial, which others can scan to directly add that trial result to the selected experiment.